



ENVIRONMENTAL MANAGEMENT MANUAL



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CONTROLLED DOCUMENT

ADDRESS	40 Ross Smith Ave, Parap		
MANAGING DIRECTOR	Mike Papandonakis	CONTACT	(08) 8981 6758 mikeexcavations@bigpond.com
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2 INTRODUCTION

The Environmental Management Handbook was prepared in accordance with AS ISO 14001 and ISO 14004:2018 Environmental Management Systems. The purpose of this handbook is to provide a structured approach to the management of environmental issues as part of Mike Excavations Pty Ltd (Mike Excavations) operations, ensuring regulatory and policy requirements are met.

3 ORGANISATIONAL CONTEXT

Mike Excavations was formed in 1984 and has become CAL Accredited D-16-11220-06-16 in Trades, Mobile Plant Hire, Heavy Transport Hire Civil Hydraulic Sewer and Water Mains – construct / upgrade, to the Value of \$3 million. Mike Excavations is certified under ISO 9001 Quality Management System and AS/NZS 4801 Occupational Health & Safety Management Systems.

3.1 UNDERSTANDING THE ORGANISATION AND ITS CONTEXT

In determining the context in which Mike Excavations operate, consideration is given to external and internal issues, this include environmental conditions relevant to the purpose of the organisation that may affect its ability to achieve the intended outcomes of the environmental management system. Mike Excavations purpose is reflected in the organisation’s vision and mission.

The context of Mike Excavations include the natural environment in which it operates, as this can create conditions and events which can affect the organisation’s activities, products and services. In preparing for and managing potential consequences of such conditions and events Mike Excavations supports its business continuity.

3.1.1 External Issues

Economical	Availability of fuel
	Accessibility to roads, sea and airports
Competition	Maintaining a competitive posture – sustainability
Supply Chain	Availability of supplier, customer requirements
Market & public demand	Future market trends for products and services – energy and resource efficiency.
Technological	Availability and access to resources relevant to Mike Excavations activities
Legislative	Legal framework in which Mike Excavations operates.
Natural	Current and future climatic conditions, physical conditions, biodiversity.
External issues: potential Sources of information	Customers, suppliers and partners, government bodies, consultants, local news.

3.1.2 Internal Issues

Governance & Structure	Hierarchy, Joint ventures and contracted services.
	Accessibility to roads, sea and airports
Legal Compliance	Status and future trends
Information Systems	Decision making process (formal and informal)
Organisational style and culture	Family owned, management and leadership style.
Methods used to examine relevant internal factors	Interviews with personnel currently employed or subcontracted Review if internal and external communication

3.1.3 Environmental Conditions and Events

Environmental conditions which can affect Mike Excavations activities	Climatic temperature changes – dry season / wet season this could affect working hours and working condition i.e. increase heat and humidity during the wet. Cyclone season – additional management strategies to prepare for this eventuality.
Environmental Events which can affect Mike Excavations activities	Flooding following monsoonal rain (difficult or no access to work areas) Cyclone. Cyclone watch and Cyclone warning notices – no access to work site Actual Cyclone event – Evacuation, Plant and Equipment availability to assist with government response plans.
Sources of information that assist in identifying environmental conditions and events	Meteorological information Historical disaster information Environmental monitoring data.

3.2 UNDERSTANDING THE NEEDS AND EXPECTATIONS OF INTERESTED PARTIES

Mike Excavations Environmental Management System is driven by the aim to meet our client’s current and future needs, and ensuring there is a robust platform to deliver merging environmental regulatory and procedural requirements which meet broader community standards.

3.2.1 Determining relevant interested parties

In determining which interested parties are relevant to the organisation environmental management system, Mike excavations consider interested parties that are internal and external to the organisation.

3.2.2 Determining relevant needs and expectations of relevant interested parties

Relevant needs and expectations of Mike Excavations relevant interested parties constitute the input toward the design of its environmental management system. Consideration is given to those needs which are obligatory and stated, and also those which are generally implied or expected as normal.

Table 1 Interested parties needs and expectations

RELATIONSHIP	INTERESTED PARTY	NEEDS AND EXPECTATIONS
By responsibility	Clients	Expect the organization to manage its risks and opportunities that can affect their operations
By influence	Non-governmental organizations (NGOs)	Need the organization's cooperation to achieve the NGO's environmental goals
By proximity	Neighbours,	the community Expect socially acceptable performance, honesty and integrity
By dependency	Employees	Expect to work in a safe and healthy environment
By representation	Industry membership organization	Need collaboration on environmental issues
By authority	Regulatory or statutory agencies	Expect demonstration of legal compliance

3.3 DETERMINING THE SCOPE OF THE ENVIRONMENTAL MANAGEMENT SYSTEM

Mike Excavations determines both boundaries and applicability of its environmental management system when establishing its scope.

Mike Excavations was formed and operates in The Northern Territory, servicing Darwin, rural and remote areas in the 'Territory'. Mike Excavations conducts operations from its head office and depot, both situated within the Darwin Metropolitan area.

Mike Excavations range of services and activities includes:

- Civil Contracting
- Water and sewerage systems constructions, repairs and maintenance
- Road works
- Bulk Excavations
- Demolition

3.4 COMPLIANCE OBLIGATIONS

Table 2. Environmental legislation

NORTHERN TERRITORY LEGISLATION	ADMINISTERED BY
<p>Petroleum Act 2014 and associated Regulations and Schedule of Requirements</p> <p>Regulates the exploration for, and production of petroleum, including environmental protection measures which should be employed during exploration and production activities, including protection of parks and reserves and rehabilitation.</p>	<p>Department of Mines and Energy</p>
<p>Northern Territory Aboriginal Sacred Sites Act 2013 and associated Regulations</p> <p>Provides for the protection of sacred sites, through establishing procedures for entering such sites and procedures for avoidance of such sites when developing and using land. Generally refers to land other than Aboriginal land.</p>	<p>Aboriginal Areas Protection Authority (AAPA)</p>
<p>Heritage Act 2012 and associated Regulations 2012</p> <ul style="list-style-type: none"> • Protects both natural and cultural heritage. The Act: • Establishes the Heritage Council (consisting of eleven members) • Establishes the NT Heritage Register • Sets the process by which places become heritage places • Allows for interim protection of places • Sets out the process for getting permission to do work to heritage places • Allows for fines and imprisonment for offences against the Act. 	<p>Department of Lands, Planning and Environment</p>
<p>Soil Conservation and Land Utilisation Act 2013</p> <p>Provides for the prevention of soil erosion and for the conservation and reclamation of soil</p>	<p>Soil Branch - Department of Land Resource Management</p>
<p>Environmental Assessment Act 2013 and associated Regulations</p> <ul style="list-style-type: none"> • Provides for the assessment of the environmental effects of development proposals and for the protection of the environment • Defines environment as being “all aspects of the surroundings of man including the physical, biological, economic, cultural and social aspects 	<p>Northern Territory Environmental Protection Authority</p>
<p>Public and Environment Health Act 2013 and associated Regulations</p> <ul style="list-style-type: none"> • This Act provides a framework for regulations to be prescribed for all public health matters. • This Act also provides to monitor, assess and control environmental conditions, factors and agents, facilities and equipment and activities, services and products that impact on or may impact on public and environmental health 	<p>Department of Health</p>
<p>Bushfires Act 2013 and associated Regulations</p> <ul style="list-style-type: none"> • This Act outlines regulations and established penalties for certain acts relating to lighting fires 	<p>Bushfires NT, Department of Land Resource Management</p>
<p>Territory Parks and Wildlife Conservation Act 2013 and associated Regulations</p> <ul style="list-style-type: none"> • Provides for the protection, conservation and sustainable utilisation of wildlife • Flora and Fauna Division of the Department of Land 	<p>Flora and Fauna Division-Department of Land Resource Management</p>

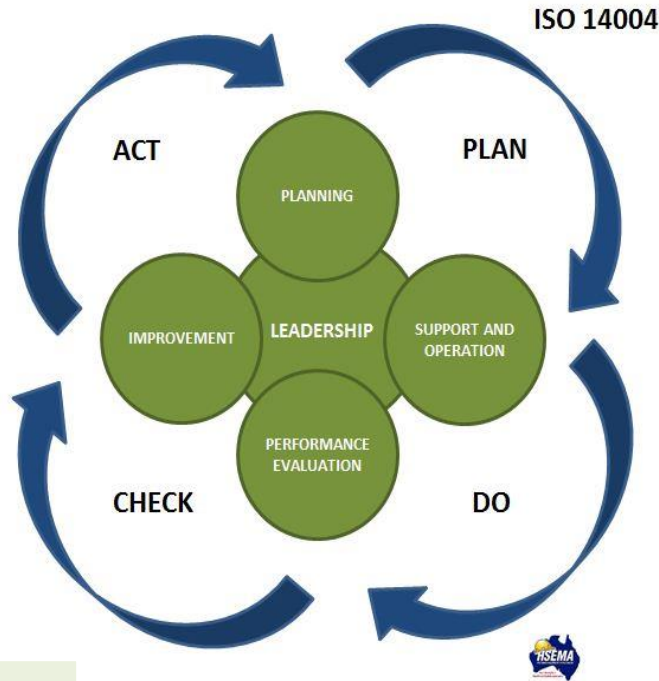
<p>Waste Management and Pollution Control Act 2013 and associated Regulations</p> <ul style="list-style-type: none"> This Act protects and where practicable restores and enhances the quality of the NT environment. It encourages ecologically sustainable development and facilitates the implementation of National Environment Protection Measures established by the National Environment Protection Council 	Northern Territory Environmental Protection Authority
<p>Water Act 2013</p> <ul style="list-style-type: none"> Provides for the investigation, allocation, use, control, protection, management and administration of water resources, including extraction of groundwater, waste management and water pollution 	Water Resources Division, Department of Land Resource Management
<p>Weeds Management Act 2013</p> <ul style="list-style-type: none"> Identifies declared weeds (those which must be controlled) and provides a framework for weed management 	Weed Management Branch, Department of Land Resource Management
<p>Dangerous Goods Act 2012 and Regulations</p> <ul style="list-style-type: none"> Provides for the safe storage, handling and transport of certain dangerous goods 	NT WorkSafe
<p>Work Health and Safety (National Uniform Legislation) Act 2011</p> <ul style="list-style-type: none"> Provides for a balanced and nationally consistent framework to secure the health and safety of workers and workplaces 	NT WorkSafe

COMMONWEALTH LEGISLATION	ADMINISTERED BY
<p>Aboriginal and Torres Strait Island Heritage Protection Act, 1984</p> <ul style="list-style-type: none"> Protection of areas and objects 	Department of the Attorney-General's; Department of Environment and Energy
<p>Australian Heritage Council Act 2003</p>	Department of Environment and Energy
<p>Environmental Protection and Biodiversity Conservation Act 1999</p> <ul style="list-style-type: none"> Provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places defined in the Act as matters of national environmental significance. 	Department of Environment and Energy
<p>Natural Heritage Trust of Australia Act 1997</p>	Department of Environment and Energy
<p>Ozone Protection and Synthetic Greenhouse Gas Management Act 1989</p>	Department of Environment and Energy

3.5 MIKE EXCAVATIONS ENVIRONMENTAL MANAGEMENT SYSTEM MODEL

ACT
 Take action to deal with nonconformity
 Take action to continually improve

PLAN
 Determine needs
 Leadership and Commitment
 Environmental Policy
 Responsibilities
 Impacts
 Compliance




CHECK
 Monitor, measure, analyse and evaluate
 Evaluate compliance
 Periodic audits
 Review the system

DO
 Allocate resources
 Assess competencies required
 Internal and external communication
 Document control
 Implement operational controls

4 LEADERSHIP AND COMMITMENT

Environmental Management is one of Mike Excavations highest priority, Mike Excavations is committed to operate in a manner that protects the environment and minimises environmental disturbance and complies with all the statutory requirements. Mike Excavations Leadership and Commitment is reflected in its Environmental Management Policy.

4.1 ENVIRONMENTAL MANAGEMENT POLICY



ENVIRONMENTAL MANAGEMENT POLICY

NEXT REVIEW AUG 2021

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OUR COMMITMENT

MIKE EXCAVATIONS SENIOR MANAGEMENT IS ACTIVELY INVOLVED IN PROVIDING BOTH PHYSICAL AND FINANCIAL RESOURCES, INCLUDING DIRECTION TOWARDS THE ACHIEVEMENT OF AN EFFECTIVE ENVIRONMENTAL MANAGEMENT SYSTEM. WE BELIEVE THAT BY COMMITTING TO THE PROTECTION OF THE ENVIRONMENT INCLUDING THE PREVENTION OF POLLUTION, MIKE EXCAVATIONS IS CONTRIBUTING TO THE SUSTAINABILITY OF ITS BUSINESS AND THE BROADER COMMUNITY.

TO ACHIEVE AND MAINTAIN AN EFFECTIVE AND EFFICIENT ENVIRONMENTAL MANAGEMENT SYSTEM, MIKE EXCAVATION AND EMPLOYEES WILL SEEK TO:

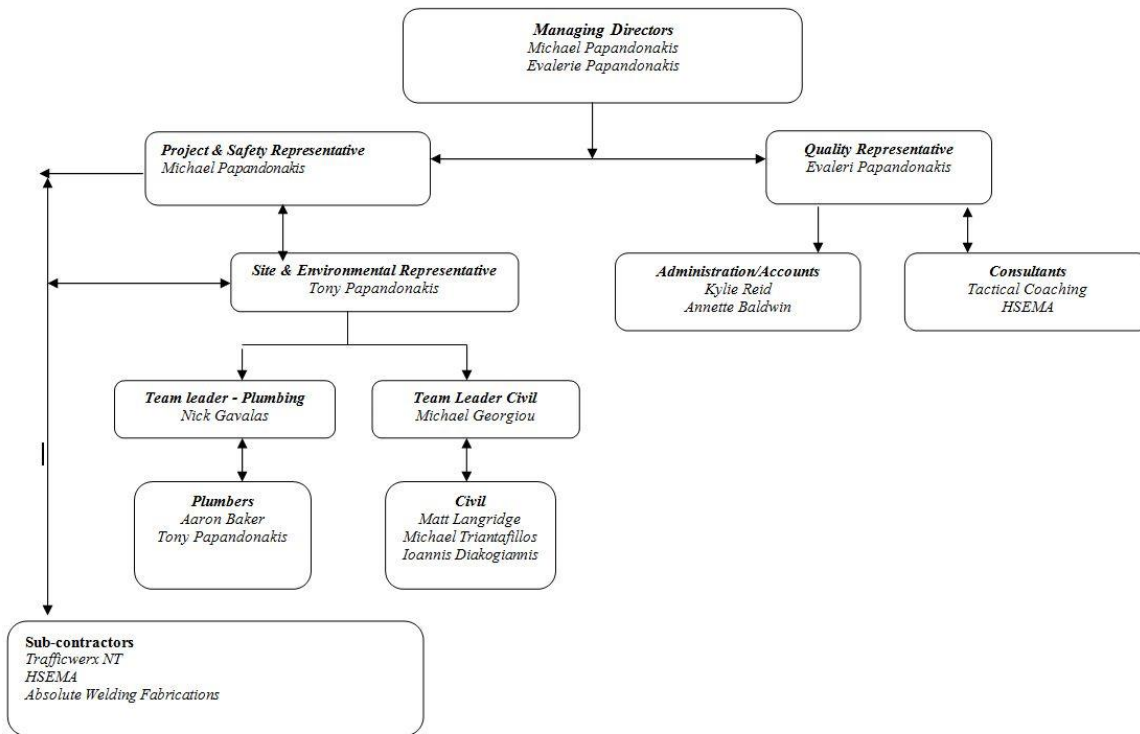
- ADDRESS KEY DRIVERS AND TRENDS TO ENVIRONMENTAL CONDITIONS AND INTERESTED PARTIES CONCERNS.
- ADDRESS ISSUES THAT COULD PRESENT PROBLEMS FOR THE ENVIRONMENT AND THE ORGANISATION.
- SEEK OPPORTUNITIES TO LEVERAGE BENEFICIAL EFFECTS, INCLUDING INNOVATION WHICH LEADS TO IMPROVED ENVIRONMENTAL PERFORMANCE.
- DETERMINE MATTERS THAT CAN OFFER COMPETITIVE ADVANTAGE, INCLUDING COST REDUCTION, VALUE FOR CUSTOMERS AND IMPROVEMENT OF OUR REPUTATION AND IMAGE.
- COMPLY WITH APPLICABLE LAWS AND REGULATIONS RELATING TO THE ENVIRONMENT.
- ENSURE THAT IT HAS SYSTEMS IN PLACE TO IDENTIFY, CONTROL AND MONITOR ENVIRONMENT RISKS ARISING FROM OUR OPERATIONS
- ENSURE THAT ALL COMPANY EMPLOYEES AND CONTRACTORS ARE TRAINED AND COMPETENT IN THE USE OF THE ENVIRONMENTAL MANAGEMENT SYSTEM AND THAT THEY ARE AWARE OF THEIR RESPONSIBILITIES.
- ENSURE CONTRACTORS ENVIRONMENTAL MANAGEMENT SYSTEMS COMPLY WITH OUR STANDARDS AND THAT PROCEDURES ARE IMPLEMENTED FOR MANAGING THE POTENTIAL NEGATIVE IMPACT THEIR PRODUCTS AND SERVICES MAY HAVE ON THE ENVIRONMENT.
- IMPROVE EFFICIENCY IN THE USE OF NATURAL RESOURCES, SUCH AS WATER AND FOSSIL FUELS.
- IMPROVE AIR AND WATER QUALITY THROUGH AVOIDANCE, SUBSTITUTION OR REDUCTION.

ALL EMPLOYEES WILL;

- FOLLOW ALL ENVIRONMENTAL PRACTICES, OBJECTIVES AND INSTRUCTIONS
- REPORT ANY ENVIRONMENTAL INCIDENTS RESULTING FROM WORK PRACTICES/EQUIPMENT/CONDITIONS TO THEIR SUPERVISOR
- PERFORM ALL WORK DUTIES IN A MANNER THAT PROMOTES CARE FOR THE ENVIRONMENT

Michael Papandonakis
Managing Director

4.2 ORGANISATIONAL STRUCTURE



4.3 ORGANISATIONAL RESPONSIBILITIES

Table 3. Environmental Roles and responsibilities

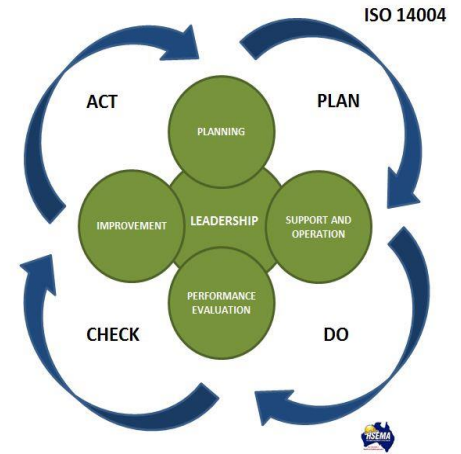
PERSON RESPONSIBLE		ENVIRONMENTAL MANAGEMENT RESPONSIBILITY	
MANAGING DIRECTOR	QUALITY REPRESENTATIVE	PROJECT & SAFETY REPRESENTATIVE	Establish Overall Direction (intended outcomes)
			Develop Environmental Policy
			Develop Environmental Objectives and Processes
			Consider Environmental aspects during the design process
			Monitor overall environmental performance
			Assure Fulfilment of compliance obligations
	TEAM LEADERS, WORKERS & SUBCONTRACTORS	Promote Continual Improvement	
		Identify Customers expectations	
		Identify requirements for suppliers and criteria for procurement	
		Conform to environmental management system requirements	
			Review the operation of the environmental management system
			Develop and maintain accounting processes

5 PLANNING

5.1 ADDRESSING RISK AND OPPORTUNITIES

Mike Excavations is committed to identifying risk to the environment and to controls those risks, by monitoring the effectiveness of those controls and by reviewing the way in which they perform.

Mike Excavations recognises the environment in which operates, and the effects and impacts associated with climate change, as they relate to its activities. Mike Excavations is committed to the protection of the environment, our practical measures include:



PROTECTION OF THE ENVIRONMENT

- Improving efficiency in the use of natural resources, by reducing the use, re-using and recycling all natural resources relative to our business.
- Protection of biodiversity, habitats and ecosystems by protection of biodiversity, through direct on-site conservation, or indirectly through procurement decisions, such as buying materials from verified sustainable sources (when available).
- Climate change mitigation through avoiding or reducing emissions of greenhouse gases, and adopting policies to meet carbon neutrality, to reduce its net contribution to climate change.
- Improvement in air and water quality through avoidance, substitution or reduction.

PREVENTION OF POLLUTION

- Source reduction or elimination (including environmentally conscious design and development, material).
- Substitution, process, product or technology changes, and conservation of energy and material resources.
- Reuse or recycling of materials within the process or facility;
- Offsite reuse or recycling of materials;
- Recovery and treatment (recovery from waste streams on or offsite, treatment of emissions, and releases of wastes on or offsite to reduce their environmental impacts.
- Control mechanisms, such as incineration or controlled disposal, where permissible, however, the organization should use these methods only after other options have been considered.

Mike Excavations will provide appropriate training and information to all employees (and any subcontractors) to ensure that they can meet the expectations of both Mike Excavations and the Client, with regard to Environmental Management.

5.2 IDENTIFYING ACTIVITIES, PRODUCTS AND SERVICES THAT CAN RESULT IN SIGNIFICANT ENVIRONMENTAL IMPACTS

Table 4. Environmental impacts and assessment

ACTIVITY/PRODUCT /SERVICE	ENVIRONMENTAL ASPECT	ACTUAL AND POTENTIAL ENVIRONMENTAL IMPACTS	RISK AND OPPORTUNITIES THAT NEEDED TO BE ADDRESSED	PLANNING TO TAKE ACTION
EARTH WORKS DURING HEAVY RAINS	Storm water runoff (abnormal conditions)	Soil erosion. Surface water pollution. Degradation of wetland habitat.	Risks <ul style="list-style-type: none"> • Clean up cost • Fines. • Negative publicity (due to habitat degradation) leading to loss of future construction projects. 	Implement operational controls to retain slit runoff. Implement emergency plans to mitigate uncontrolled runoff. Develop a clean-up response.
CHEMICAL HANDLING AND USE	Uncontrolled released during fire and explosion (emergency situation)	Air pollution. Pollution. Soil Contamination. Injury to humans.	Risks <ul style="list-style-type: none"> • Clean-up-cost • Fines • Detrimental publicity 	Implement, monitor and review Emergency Management Procedures.
FLEET OPERATIONS	Fuel Use	Depletion of non-renewable fossil fuels.	Risks <ul style="list-style-type: none"> • Fuel availability • Higher fuel costs Opportunities <ul style="list-style-type: none"> • Use alternative fuel (CNG/LNG) • Reduce fuel costs 	Establish environmental objectives to reduce fuel use
	Emission of nitrogen oxides	Air pollution. Global Warming and Climate Change.	Risk <ul style="list-style-type: none"> • Introduction of stricter fuel emission standards 	Research methods to reduce emissions
	Generation of waste oil	Soil Contamination. Injury to humans.	Risks <ul style="list-style-type: none"> • Clean-up-cost • Fines • Detrimental publicity 	Manage oily waste in conformity with requirements
	Generation of noise	Discomfort or inconvenience to local residents.	Risks <ul style="list-style-type: none"> • Detrimental publicity 	Provide operators with training Impose strict operation hours
EMERGING LEGAL REQUIREMENTS	Legislative framework	Improve Environmental Management.	Risks <ul style="list-style-type: none"> • Failure to identify and comply with new or changing compliance obligations can damage the organization's 	Develop control processes to ensure that the monitoring of the regulatory landscape is effective to improve the identification of emerging requirements

			reputation and can lead to fines	
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Table 4. Environmental Impacts and Assessment (Cont.)

ACTIVITY/PRODUCT /SERVICE	ENVIRONMENTAL ASPECT	ACTUAL AND POTENTIAL ENVIRONMENTAL IMPACTS	RISK AND OPPORTUNITIES THAT NEEDED TO BE ADDRESSED	PLANNING TO TAKE ACTION
EXTREME WEATHER EVENTS	Uncontrolled release of chemicals	Air pollution. Pollution. Soil Contamination. Injury to humans.	Risk <ul style="list-style-type: none"> Climate change increases like-hood of extreme weather events. Business losses due to service disruptions Insurance concerns Opportunities <ul style="list-style-type: none"> Apply Business Continuity Management to ensure business survivability post extreme weather 	<p>Implement, monitor and review Emergency Management Procedures.</p> <p>Develop a cyclone management plan</p>
DECONTAMINATION OF MACHINERY	Cross Contamination	Contamination of preserved areas	Risk <ul style="list-style-type: none"> Business losses due to service disruptions Insurance concerns Detrimental publicity 	Implement monitor and review Power & Water decontamination procedure
WEED – PEST CONTROL GAMBA GRASS	Impacts on native species	Long-term impact on Native tree cover by increasing fuel loads. Gamba grass have increased fire intensities by up to eight times higher than native grass, damaging and reducing native plants propagation	Risk <ul style="list-style-type: none"> Increase risk of fire at the end of the wet season and begging of the dry. Business losses due to service disruptions of fire. 	Implement monitor and review Power & Water weed control and management procedure

5.3 PERFORMANCE INDICATORS

Positive Performance Indicators (PPIs), also referred to as ‘leading indicators’, aim to detect and provide advance warning of latent environmental hazards. This allows Mike Excavations to implement proactive actions designed to prevent negative environmental impacts.

Their value lies in the avoidance of poor environmental management and the associated impact to the environment, the health and wellbeing of Mike Excavations employees and the public in general. PPIs provide important data for informing environmental management performance improvement, monitoring the effectiveness of the system inputs and processes and highlighting where prioritised efforts or increased resources are likely to add future value.

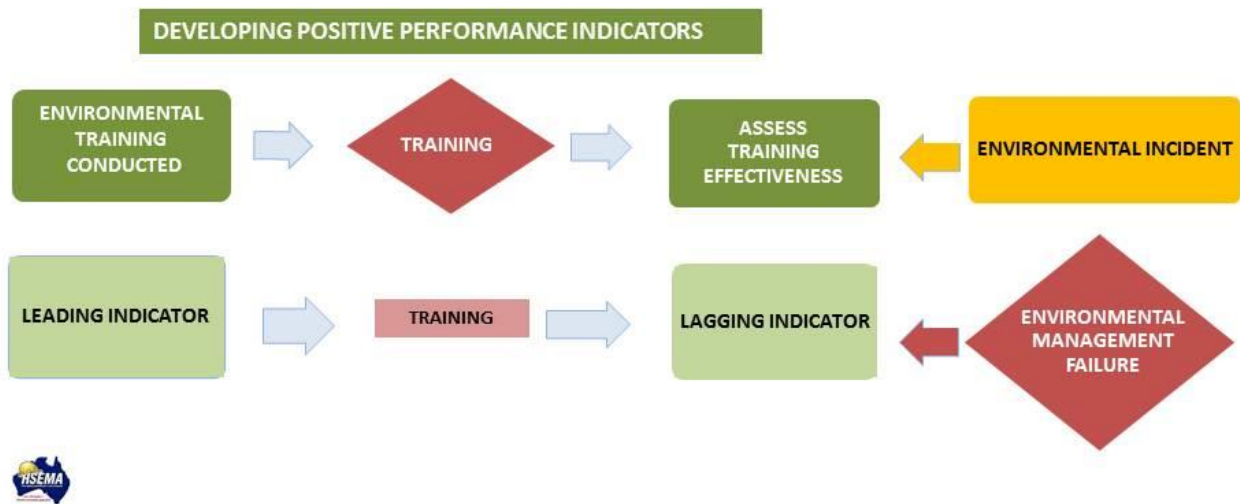


Figure 1. Positive Performance Indicators

5.4 OBJECTIVES, TARGETS, PERFORMANCE MEASURE AND MONITORING

Table 5 Performance measure, monitoring and reviewing

OBJECTIVE	TARGET	ACTION REQUIRED	COMPLETION DATE	PERFORMANCE MEASURE	MONITORING & REPORTING PERIOD	RESPONSIBLE PERSON
Reduce impact of greenhouse gas emission – energy usage	Monitor fuel and electricity usage and determine a reduction strategy	<ul style="list-style-type: none"> Commence recording energy usage Jul 2018 	Jul 2019	Hours worked VS Kwh	Quarterly	Managing Director
	Percentage of budget spent on low emission technology	<ul style="list-style-type: none"> Review low emission technology opportunities applicable to the organisation 	Feb 2019	Identify technologies	Quarterly	Managing Director
		<ul style="list-style-type: none"> Determine a viable percentage of budget that can be destined to invest on emission technologies 	Feb 2019	Budget allocation	Quarterly	Managing Director
	Planting of trees/shrubs to reduce carbon dioxide in atmosphere	<ul style="list-style-type: none"> Determine number of trees/shrubs. 	By Dec 2018	<ul style="list-style-type: none"> Area (acres) No of plants 	Quarterly	Managing Director
<ul style="list-style-type: none"> Planting program Ongoing review. 		Start Jul 2019				
Reduce impact of landfill-waste reduction	Determine a waste reduction strategy	<ul style="list-style-type: none"> Determine types of waste Commence recording waste Used engine oil recycled as 'hot mix' Concrete waste is recycled 	By Feb 2019	Amount purchase / amount discarded	Quarterly	Managing Director
	Suppliers – request biodegradable packaging or reduction of packaging	<ul style="list-style-type: none"> Review list of suppliers and request better packaging or recycling options. 	By Feb 2019	Completed Yes/No	Quarterly	Managing Director
	Increase percentage of waste recycled	<ul style="list-style-type: none"> Review list of suppliers / seek supplier which use recycle materials 	By Feb 2019	Completed Yes/No	Annually	Managing Director

		<ul style="list-style-type: none"> Determine amount of recycled waste 	Jul 2019	Completed Yes/No	Quarterly	Managing Director
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Table 5 Performance measure, monitoring and reviewing (Cont.)

OBJECTIVE	TARGET	ACTION REQUIRED	COMPLETION DATE	PERFORMANCE MEASURE	MONITORING & REPORTING PERIOD	RESPONSIBLE PERSON
Capacity Development	100% of personnel trained	<ul style="list-style-type: none"> Personnel trained in environmental aspect identification 	<ul style="list-style-type: none"> Jul 2019 	% of personnel trained	Quarterly	Managing Director
Business Continuity – Provision of Essential Services	Develop a Business Continuity Plan	<ul style="list-style-type: none"> Engage the service of a consultant to prepare 	<ul style="list-style-type: none"> Jul 2019 	All foreseeable contingencies have been planned for	Annually	Managing Director
Serious Environmental Incident Frequency Rate (SEIFR)	0.00 <i>(Frequency rates are per 1 million man-hours worked)</i>		<ul style="list-style-type: none"> Jul 2019 	Serious Environmental Incident Frequency Rate (SEIFR)	Annually	Managing Director
>90% Investigations completed on time		<ul style="list-style-type: none"> Prompt Response and Incident Investigations 	<ul style="list-style-type: none"> Jul 2019 	% Investigations completed on time	Annually	Managing Director

5.5 COMPLIANCE OBLIGATIONS

Table 6. Audit and Compliance Program

MIKE EXCAVATIONS SAFETY REPRESENTATIVE IS RESPONSIBLE TO PRODUCE ENVIRONMENTAL REPORTS AT DETERMINED INTERVALS, THIS ARE PROVIDED DIRECTLY TO MANAGEMENT FOR REVIEW AND FOR ACTION IF REQUIRED. ALL ACTIONS ARE TRACKED THROUGH THE COMPANY ACTIONS REGISTER. MIKE EXCAVATIONS MANAGEMENT DETERMINES ENVIRONMENTAL OBJECTIVES AND TARGETS AT PROJECT LEVEL.					
SITE AUDIT & COMPLIANCE PROGRAM	FREQ	WHO	RECORD/ EVIDENCE	OUTCOMES REPORTED TO	OUTCOMES RECORDED FOR ACTION IN
COMPLIANCE – ENVIRONMENTAL SITE INSPECTION	MONTHLY	Mike Excavations/ HSEMA	ENVIRONMENTAL CHECKLIST	QUALITY REPRESENTATIVE	ACTION REGISTER
WORKER ENGAGEMENT – MEETING TOOLBOX TALK – ENVIRONMENTAL	QUARTERLY / TRIGGERED BY AN EVENT	Mike Excavations/ HSEMA	TOOLBOX RECORD	QUALITY REPRESENTATIVE	ACTION REGISTER
COMPLIANCE – TRAINING REQUIREMENTS	QUARTERLY / TRIGGERED BY AN EVENT	Mike Excavations/ HSEMA	TRAINING REGISTER	QUALITY REPRESENTATIVE	ACTION REGISTER
MANAGEMENT REVIEW	QUARTERLY	Mike Excavations/ HSEMA	INPUT: ENVIRONMENTAL INTERNAL AUDIT (PART OF)	QUALITY REPRESENTATIVE	ACTION REGISTER
			ENVIRONMENTAL COMPREHENSIVE CHECKLIST		
			OUTPUT: MANAGEMENT REVIEW. AGENDA AND MINUTES		
COMPLIANCE – LEGAL REQUIREMENTS REVIEW	QUARTERLY	Mike Excavations/ HSEMA	EMERGENCY DRILL RECORD MANAGEMENT REVIEW. AGENDA AND MINUTE	QUALITY REPRESENTATIVE	ACTION REGISTER
REVIEW – ENVIRONMENTAL SYSTEM REVIEW	ANNUALLY	Mike Excavations/ HSEMA	INPUT: ENVIRONMENTAL INTERNAL AUDIT (COMPLETE)	QUALITY REPRESENTATIVE	ACTION REGISTER

5.6 PERFORMANCE INDICATORS

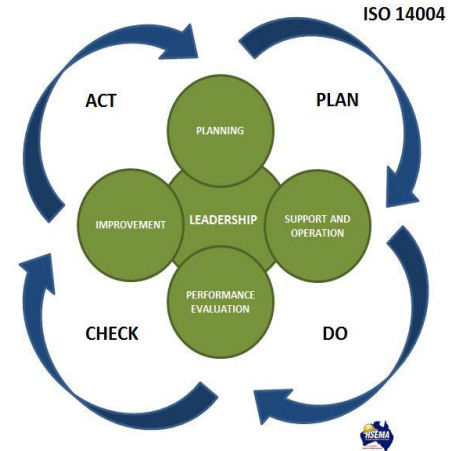
Table 7. Environmental Key Performance Indicators

PERFORMANCE INDICATORS		CONTINUAL IMPROVEMENT INDICATORS		
		FEB 2019	JUL 2019	FEB 2020
Emissions	Fuel consumption			
	Carbon dioxide reduction			
	Energy usage			
	Efficiency of energy used			
Negative Impacts Environmental	Number of environmental incidents			
	Environmental accidents (unplanned releases)			
	Total Waste (% of recycled)			
Fleet and Plant Equipment	KMS vs. HRS worked			
Habitat improvements	Land area set aside for wildlife habitat			
Training	Number of personnel trained in environmental aspect identification			
Technology	Percentage of budget spent on low emission technology			

6 SUPPORT

6.1 RESOURCES

To determine the necessary resources for establishing, implementing, maintaining and improving the environmental management system, Mike Excavations considers current and future needs. A cooperative strategy is adopted for resource allocation, by sharing knowledge and technologies with some of our larger clients. Mike Excavations also defines and addresses common issues and shares experiences with other organisations within their supply chain.



6.2 DEVELOPING COMPETENCE

Mike Excavations ensures all personnel conducting work under its control are able to fulfil their environmental compliance obligations, by offering a range of training, education and work experience options. Mike Excavations engages external services providers to ensure environmental performance and the achievement of the intended outcomes.

Table 8. Competencies requirements

AREAS OF COMPETENCE	ORGANISATIONAL ROLE	COMPETENCE / CAPABILITY NEEDED	MEANS FOR ESTABLISHING COMPETENCE
Environmental Technology	Environmental technicians	Proficient on environmental sampling	Training and assessment on collection requirements and practices
		Ability to operate monitoring equipment	Certification or license as required
	Environmental program managers	Proficiency in applicable environmental regulations	Degree in environmental field Training on applicable regulations
Environmental Operations	Persons whose work and activities involve significant environmental aspects	Awareness of how their work affect the environment	Training on environmental impacts associated with their work
		Knowledge of operating criteria that needs to be met in order to minimize adverse environmental impacts	Training on operation criteria to ensure processes are controlled
	Environmental managers	Able to establish, implement and improve an environmental management system	Experience in environmental management system implementation

		Determines risks and opportunities that need to be addressed to achieve intended outcomes and to plan appropriate actions	Training on environmental management systems requirements
		Ability to act upon based on the organisation's environmental performance and compliance obligations	
Environmental Audits and Reviews	Auditors – managers	Ability to develop and manage audit programs to determine the effectiveness of the organisation environmental management system	Program Management training
			Experience on program implementation
Environmental Leadership	Senior management	Knowledge and understanding of the implications of establishing and implementing an environmental policy	Training on environmental management system and establishing an environmental policy
		Knowledge and understanding of resources availability and its application to an environmental management system – assignment of responsibilities and authorities	Experience in business management

6.3 ENVIRONMENTAL AWARENESS AND COMMUNICATION

The Environmental Management Manual is used to convey information which is relevant to the organisation environmental management system. Hard copies of these documents are available to all personnel and introductory training is conducted covering the contents of this handbook.

External communications - Mike Excavations utilizes ME-For-21 Meeting and Communications Record to gather information, make enquiries; determine which information is communicated to the target audience and allocate actionable items accordingly. Actionable items are recorded in the Actions Register and are review as per Mike Excavations compliance and auditing program.

Internal communications are recorded using ME-For-21 Meeting and Communications Record and can also take the form of tool talks box talks which are done quarterly as a minimum or when triggered by an event, both of these processes offer opportunities for consultation, coordination and problem solving activities.



6.4 DOCUMENTS CONTROL

Documents required to implement the environmental management system, shall be approved for issue and reviewed and updated as necessary. The revision status and page numbering of documents shall be implemented to ensure that incorrect documents are not inadvertently used.

Only pertinent version of documents will be made available for use and it will be ensured that they are identifiable and legible.

7 OPERATIONAL PLANNING AND CONTROL

7.1 DETERMINING OPERATIONAL CONTROLS

When determining the necessary controls, Mike Excavations considers the Risks and Opportunities which needed to be addressed and also any unintended consequence which could result.

In consultation with relevant stakeholders and interested parties; a Risk Assessment Process is in place to ensure methods are effective in preventing and minimising negative environmental impacts. If unacceptable, risks are identified new control measures will be introduced.

When developing project specific environmental plans, Mike Excavations utilises a modular format, which permits addressing activities associated with the project that require environmental risk management.

Some of the Modules may include:

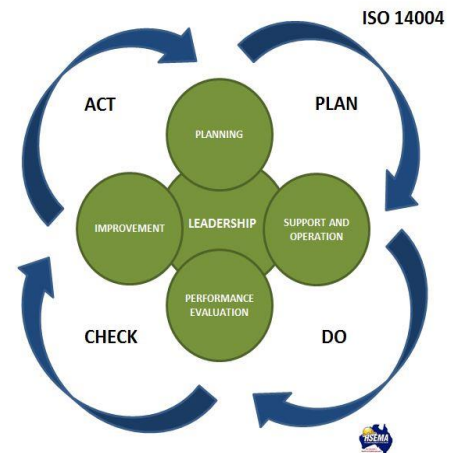
- Construction Traffic and Access Management Plan
- Construction Flora and Fauna Management Plan
- Construction Noise and Vibration Management Plan
- Construction Soil and Water Quality Management Plan
- Construction Heritage Management Plan
- Construction Air Quality Management Plan
- Construction Waste Management Plan

Each module uses the below risk matrix

Table 9. Mike Excavations Environmental Risk Matrix

PROBABILITY (LIKELIHOOD)	SEVERITY (LEVEL OF IMPACT)				
	1 Insignificant	2 Minor	3 Moderate	4 Major	5 Catastrophic
5 Almost Certain	H	H	E	E	E
4 Likely	M	H	H	E	E
3 Moderate	L	M	H	E	E
2 Unlikely	L	L	M	H	E
1 Rare	L	L	M	H	H

RISK FACTORS: E =EXTREME, H = HIGH, M = MODERATE, L = LOW



7.2 EMERGENCY PREPAREDNESS AND RESPONSE

When planning and preparing responses to an emergency situation, Mike Excavations considers the initial and secondary environmental impacts that could occur resulting from such response.

Mike Excavations is prepared to respond to the following types of situations:

- Fire and Smoke Emergency (ME- Emergency Procedures)
- Evacuation Procedure (ME- Emergency Procedures)
- Hazardous Material Spill / Leak (ME- Emergency Procedures)
- Medical Emergencies (ME- Emergency Procedures)
- Chemical Spill (ME- Emergency Procedures)
- Biological Spill (ME- Emergency Procedures)
- Discovery of an item of Aboriginal or Heritage Significance (ME- Emergency Procedures)
- Flooding (ME- Emergency Procedures)
- Fumes/Vapor/Gas Leak (ME- Emergency Procedures)
- Various Operational Controls for Mike Excavations activities (Mike Excavations Standard Operation Procedures)

All environmental incidents and emergencies will be managed in accordance with the Emergency Response Standard Operating Procedure. The Accident and Incident Investigation form (ME-For-07) and Hazard Report (ME-For-06) will be used to record all environment incidents.

Upon consultation with the Environmental Protection Authority (EPA) Manager, and NT Fire Rescue and Emergency Services, each relevant authority will be notified immediately via the appropriate telephone number should a pollution incident occur that causes or threatens material harm to the environment.

The relevant authorities to be notified are:

- The EPA – NT
- Power and Water (if applicable)
- NT WorkSafe
- Darwin City Council, and
- Fire and Rescue NT

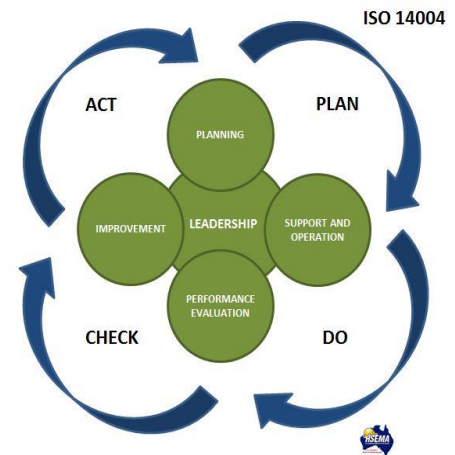
Following the incident, Mike Excavations will conduct an internal investigation and a report will detail the purpose, outcome and actions pertaining to the incident, copies of this report will be made available to the relevant authorities as required.

8 PERFORMANCE EVALUATION

Quantitative and Qualitative data is gathered systematically to enable business decisions that can enable long term success and the creation of sustainable opportunities for Mike Excavations.

Our key performance indicators include:

- Protection, prevention and reduction of negative environmental impacts.
- Implement lifecycle principles to prevent environmental impacts.
- Financial and operational benefits which result from implementing environmentally friendly alternatives, and strategically strengthen Mike Excavations market position.



8.1 EVALUATION OF COMPLIANCE

Mike Excavations performance against compliance obligations are evaluated periodically, taking into consideration the following:

- Legal requirements (**Section 3.2; Table 2. Environmental Legislation refers**)
- Interested parties needs and expectations (**Section 3.1; Table 1 Interested parties' needs & expectations**)
- Changes to compliance obligations (**Section 3.2; Table 2. Environmental Legislation refers**)
- Emerging efficiencies and technologies (**Section 6.2; Competencies Requirements; Table 7. Environmental Key performance Indicators**).

Mike Excavations maintains records of all documented information, for compliance evidence.

8.2 INTERNAL AUDIT

Mike Excavations internal auditing system is based on the nature of the organisation's operations, environmental aspects and impacts. Mike Excavations engages the services of an external auditor to maintain objectivity and impartiality.

Section 5.4 Objective, Targets, performance measure and Monitoring - Refers to this process

8.3 MANAGEMENT REVIEW

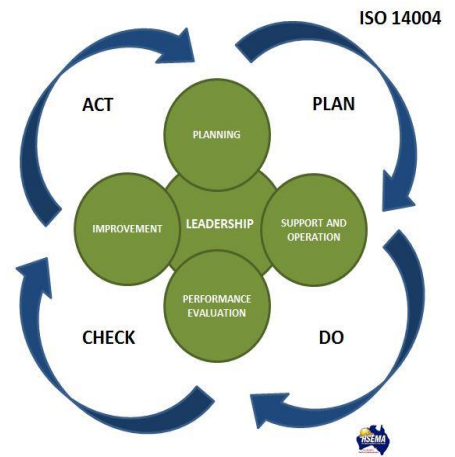
As part of ensuring implementation, improvement and integration of Mike Excavations environmental management systems with existing business process, a context review is conducted. This review includes procurement, finance, human resources, engineering, design and marketing.

Section 5.5 Compliance Obligations - Refers to this process

9 IMPROVEMENT

Mike Excavations identifies opportunities for improvement by measuring, analysing and evaluating its environmental performance and compliance obligations. This is achieved by:

- **Section 5.4 Objectives, Targets, Performance Measure and Monitoring.**
- **Section 5.5 Compliance Obligations**



9.1 NON-CONFORMITY AND CORRECTIVE ACTION

Mike Excavations has a systematic approach to identify non-conformances, by utilizing its Audit and Compliance Program, which include analysis and review of performance indicators, adequacy of emergency responses and review and measure of quantitative data.

9.2 CONTINUAL IMPROVEMENT

Mike Excavations continually evaluates its environmental performance and the performance of its environmental management system, this process is document using the Management Review Environmental document and is done at intervals described under Mike Excavations Audit and Compliance Regime.