	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

ENVIRONMENTAL MANAGEMENT SYSTEM



BARKLY PLUMBING SERVICES




	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

TABLE OF CONTENTS

1	OVERVIEW _____	5
2	ENVIRONMENTAL POLICY _____	6
2.1	Environmental Policy _____	6
2.2	Policy Authorised by Senior Management _____	6
2.3	Policy Incorporates Management Commitment to Comply with Relevant Legislation	6
2.4	Policy Includes Management Responsibilities _____	6
3	GENERAL RESPONSIBILITIES _____	8
3.1	General Manager _____	8
3.2	Supervisors _____	8
3.3	Individual Employees Responsibilities _____	8
4	CONSULTATION _____	8
4.1	Reporting and Recording of Environmental Incidents _____	9
4.2	Continuous Improvement in Environmental Management _____	9
5	LEGAL AND OTHER REQUIREMENTS _____	11
5.1	Overview _____	11
5.2	Commonwealth Legislation _____	11
5.3	National Policies _____	15
5.4	State Legislation _____	16
6	PLANNING _____	20
6.1	Environmental Aspects _____	20
6.2	Objectives, Targets _____	22
	Form 3.1 - Register of Environmental Objectives and Targets _____	23
	Form 3.2 - Register of Environmental Aspects _____	25
7	IMPLEMENTATION AND OPERATION _____	29
7.1	Resources, Roles, Responsibility and Authority _____	29
7.2	Competence, Training and Awareness _____	30

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

7.3	Communication _____	30
7.4	Documentation _____	31
7.5	Control of Documents _____	31
7.6	Operational Control _____	31
7.7	Emergency Preparedness and Response _____	32
	Emergency Test and Incident Review form – Form 4.4 _____	32
	Form 4.1 - Responsibility Matrix, Training Needs Analysis and Training Plan _____	33
	Form 4.2 - Register of Documents and Records _____	36
	Form 4.3 - Register of Emergency Response Tests _____	43
	Form 4.4 - Emergency Test and Incident Review Form _____	44
8	CHECKING _____	46
8.1	Monitoring and Measurement _____	46
8.2	Evaluation of Compliance _____	46
8.3	Nonconformity, Corrective Action and Preventive Action _____	47
8.4	Control of Records _____	49
8.5	Internal Audit _____	49
	Form 5.1 - Register of Nonconformity and Suggestions for improvement _____	51
	Form 5.2 - Corrective and Preventive Action Form _____	52
	Form 5.3 - Internal Audit Schedule _____	55
	Form 5.4 - Register of Legal and Other Requirements _____	57
	Form 5.5 - Internal Audit Checklist _____	60
	Form 5.6 - Internal Audit Report Template _____	73
	Form 5.7 - Archives Register _____	76
	Form 5.8 - Schedule of Monitoring and Measurement _____	77
9	MANAGEMENT REVIEW _____	81
9.1	Review _____	81
	Form 6.1 - Management Review of Environmental Management System _____	82
10	DEFINITIONS _____	85

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


APPENDIX 1 – WASTE CONTROL _____ 91

APPENDIX 2 – ENERGY CONSUMPTION _____ 93

APPENDIX 3 - ENVIRONMENTAL NOISE _____ 94

APPENDIX 4 - WATER POLLUTION _____ 97

APPENDIX 5 - FLORA AND FAUNA _____ 99

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

1 OVERVIEW

Protecting the Environment has become a very important issue within the community and our clients. As such, Barkly Plumbing is committed to ensuring the Environmental Impact of our works is considered, and minimised.

The Environmental Management System (EMS) is to apply to offices of Barkly Plumbing and any site under management by the company, along with any project involving its employees.

Failure to comply with the requirements of the Environmental Management System will lead to disciplinary action.


The purpose of this system is to establish and maintain the effective management of environmental impacts. It is also designed to promote excellence in environmental management through a process of continual improvement.

Barkly Plumbing has implemented a structured environmental management system to achieve a consistently high standard of performance. In addition, it will serve to ensure Barkly Plumbing meets the obligations of its internal Environmental Policy and relevant legislation/standards.

Barkly Plumbing will review this system regularly in order to provide guidance for internal/external consultation, development and improvement processes. More frequent reviews will take place in response to organisational and legislative changes.

Barkly Plumbing recognises that the success of the system depends on commitment from all levels and functions, particularly the leadership of management. Barkly Plumbing has defined an Environmental Policy and Objectives, and plans to implement, monitor and evaluate its procedures which give effect to the Environmental policy and objectives; and achieve conformance with such planned procedures.

The policy and procedures are formally authorised and approved by the General Manager by signing the document. The Environmental Management System will be released as a controlled document and the controlling authority shall be the designated representative. This will be managed under the quality control system currently maintained by Barkly Plumbing. The General Manager also has been assigned custody to ensure the procedure is maintained and updated.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

2 ENVIRONMENTAL POLICY

Objective

Barkly Plumbing is able to demonstrate an active, consultative commitment to minimising environmental impact across its business operations.

2.1 Environmental Policy

Barkly Plumbing has developed and implemented an environmental policy, supplemented by an environmental management system to meet its obligations and legislative requirements. This will also assist to achieve a consistently high standard of environmental performance. Regular review of the EMS at senior level reinforces its importance to Barkly Plumbing's commercial objectives and legal obligations.

2.2 Policy Authorised by Senior Management

The General Manager will formally sign and date the current written policy and display it in the designated areas. The General Manager will formally approve the policy and procedures.

The General Manager reviews the documented Environmental Policy every year.

2.3 Policy Incorporates Management Commitment to Comply with Relevant Legislation


Barkly Plumbing's Environmental Policy will ensure compliance with legislative requirements and current industrial standards such as:

- Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).
- Various Codes of Practice.
- AS/NZS ISO 14001 ~ Environmental Management Systems.
- Environmental Protection Act (1994).


2.4 Policy Includes Management Responsibilities

Barkly Plumbing has delegated general and specific environmental responsibilities applicable to the various management levels of the organisation. The responsibilities are assigned to the levels of management as shown below.

Further individual responsibilities are contained in particular procedures and position descriptions. Every level participates in the establishment and maintenance of the environmental controls as well as assisting in planning.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Barkly Plumbing’s Environmental Policy is to inform employees and other interested parties that Environmental Management is an integral part of its operations. All employees are actively involved in the review and continual improvement of Environmental performance as this reinforces the company’s objectives.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

3 GENERAL RESPONSIBILITIES

3.1 General Manager

- Formally approve the Environmental Policy & EMS.
- Assign custody to ensure procedure is maintained and updated.
- Formally approve the Environmental Procedures.
- Review overall organisational Environmental performance.
- Participate where required in the resolution of environmental issues.
- Review serious environmental accidents/incidents and monitor corrective actions.
- Review environmental performance of middle management.
- Ensure organisational compliance with relevant legislation.

3.2 Supervisors

- Implement the Environmental Policy, EMS and legislative requirements.
- Monitor environmental performance within area of responsibility.
- Demonstrate commitment to environmental impact through participation in formal and informal discussions, workplace visits and inspections, etc.
- Participate, where required, in the resolution of environmental issues.
- Investigate all environmental incidents within area of responsibility.
- Ensure liaison with employees, particularly on any workplace changes which have an impact on the environmental component.
- Initiate actions to improve environmental impact of operations within area of responsibility.
- Actively monitor the workplace to determine presence of hazards to the environment and take appropriate action to rectify any hazards found.
- Participate in consultation.
- Ensure all employees receive regular training as required to perform jobs safely.


3.3 Individual Employees Responsibilities

Employees will:

- Adhere to all working procedures in accordance with instructions.
- Ensure environmental impact is considered as part of pre-job planning.
- Participate in all training as requested.
- Participate in the consultation process.

4 CONSULTATION

Barkly Plumbing is committed to consultation and co-operation between management and employees, to any change or input to the EMS (including the Environmental Policy) that will affect the workplace.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


4.1 Reporting and Recording of Environmental Incidents

Barkly Plumbing has a strict procedure for internal and external reporting and recording of work-related incident, injury, or illness. This is also to be utilised for environmental incidents.

4.2 Continuous Improvement in Environmental Management

Barkly Plumbing environmental process is subject to regular reviews when factors likely to affect the degree of risks or the context such as changes in the organisation, materials, work procedures, work location, processes or methods occur. There are standards related to the type or frequency of monitoring and review activities such as inspections and audits.

As time proceeds new information comes to light in terms of risk and controls; therefore the environmental assessment needs to be repeated regularly. Repeating the assessment process with rigorous acceptability criteria also promotes continual improvement in managing environmental impact.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

ENVIRONMENTAL POLICY STATEMENT

Barkly Plumbing is committed to undertaking business in a manner that is environmentally responsible, having due regard for standards and expectations of the community and the relevant environment legislation and regulations. Any customer and community specified environmental requirements or issues are also observed as part of our commitment to meeting and satisfying our requirements.

Minimising our environmental impact, and care for the environment is the responsibility of all Barkly Plumbing personnel and contractors at every level of the Company.

To achieve this stated policy outcome, the commitment and contribution of each and every employee is required through:

- Taking responsibility for ensuring they are familiar with and adhere to the EMS.
- Providing & participating in all relevant training.
- Considering environmental impact as an integral part of our work.

Barkly Plumbing promotes a work environment and environmental management system that is characterised by:


- A systematic approach to controlling environmental hazards and risks through the development and implementation of suitable policies and procedures.
- Effective management demonstrated by commitment and direct involvement at all levels of the company.
- Outperforming teamwork with effective two-way communication as an integral part of every job.
- Provision of appropriate facilities, equipment, education, training and supervision for employees and contractors.

In its activities Barkly Plumbing is committed to ensure all work sites are maintained to prevent unacceptable risks to employees and the environment. This will be achieved by:

- Ensuring there is a system in place aimed at protecting the environment and preventing pollution.
- Developing a continual educational program on environmental awareness that will be disseminated to all employees and contractors.
- Facilitating continuous improvement through periodic review of objectives and performance measures, systems, practices and procedures to ensure their continued effectiveness and relevance.

Signed by Director

Dated

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

5 LEGAL AND OTHER REQUIREMENTS

5.1 Overview

Barkly Plumbing is subject to several legal requirements regarding its environmental aspects. Barkly Plumbing's legal officer monitors our legal obligations and keeps them up to date. We are also subject to several other non-legal requirements regarding its environmental aspects.

The Register of Legal and Other Requirements details the specific requirements applicable, and shows how the requirements apply to the organisation's environmental aspects. It is maintained by the environmental co-ordinator. The environmental co-ordinator is also responsible for reporting on changing legal and other requirements related to the organisation's environmental aspects in management reviews.

Our legal and other requirements are taken into account in establishing, implementing and maintaining the environmental management system.

5.2 Commonwealth Legislation

Australian Capital Territory Planning and Development Act 2007

This Act provides for a system of land use which encourages minimum environmental impact in the Australian Capital Territory.


Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act is the central environmental legislation for the Commonwealth Government. It 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.

The Act requires the principles of ecologically sustainable development to be taken into account for a new development proposal if that proposal is likely to result in a significant impact on the environment.

Section 516A requires Commonwealth Government agencies to include a report on environmental matters in their annual reports. These reports must:

- Say how the agency's activities have accorded with the principles of Ecologically Sustainable Development.
- Identify how agency outcomes contributed to Ecologically Sustainable Development.
- Document the agency's impacts on the environment and measures taken to minimise those impacts.
- Identify the review mechanisms in place to review and increase the effectiveness of the measures the agency takes to minimise its environmental impact.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

The Act clarifies that for s. 516A, activities include the development and implementation of policies, plans, programs and legislation.

The Department of the Environment, Water, Heritage and the Arts has developed reporting guidelines to assist Commonwealth agencies in implementing section 516A.

Environment Protection (Impact of Proposals) Act 1974

Significant environmental matters must be fully examined and taken into consideration in relation to actions, proposals and decisions taken on or behalf of the Commonwealth Government and its agencies.

Environment Protection (Sea Dumping) Act 1981

This Act regulates the loading and dumping of waste at sea to protect waters surrounding Australia's coastline. The Act fulfils Australia's international obligations under the London Protocol to prevent marine pollution by dumping of wastes and other matter. Permits are required from the Department of the Environment, Water, Heritage and the Arts for all ocean disposal activities.

National Environment Protection Council Act 1994

Establishes the National Environment Protection Council (NEPC). This is a national ministerial body which makes national environment protection measures to ensure that Australians have equivalent protection from air, water, soil and noise pollution. This Act is mirrored in all States and Territories.


National Environment Protection Measures (Implementation) Act 1998

This Act provides for the implementation of National Environment Protection Measures (NEPMs) for certain activities carried on by or on behalf of the Commonwealth and Commonwealth authorities, and for related purposes.

State and Territory laws implementing national environment protection measures do not apply to the activities of the Commonwealth or Commonwealth authorities. However, under this Act, the Environment Minister may (subject to considerations of national interest or administrative efficiency) apply those State or Territory laws to the activities of the Commonwealth or Commonwealth authorities in other places. If NEPMs are not implemented in relation to the activities of the Commonwealth or Commonwealth authorities they can be implemented by regulations; or if there are no regulations, through environmental audits and environment management plans.

National Greenhouse and Energy Reporting Act 2007

The National Greenhouse and Energy Reporting Act 2007 (the Act) was passed on 29 September 2007 establishing a mandatory reporting system for corporate greenhouse gas emissions and energy production and consumption. The first reporting period under the Act commenced on 1 July 2008.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Key features of the Act are:

- Reporting of greenhouse gas emissions, energy consumption and production by large corporations.
- Public disclosure of corporate level greenhouse gas emissions and energy information.
- Consistent and comparable data available for decision making, in particular, the development of the Carbon Pollution Reduction Scheme.

Motor Vehicles Standards Act 1989

Imposes emission standards for exhaust fumes on road vehicles and their component parts.

Clean Energy Act 2011

Reduce greenhouse gas Emissions, and encourage the use of and investment in Clean Energy.

Ozone Protection and Synthetic Greenhouse Gas Management Act 1989

Controls the use of goods that are known to cause destruction of the ozone layer. The contents of this Act are mirrored in similar Acts in all States and Territories.

Agricultural and Veterinary Chemicals Act 1994

Provides for the evaluation, registration and control of agricultural and veterinary chemical products in the ACT and is mirrored by similar legislation in all the other Australian States and Territories.

Industrial Chemicals (Notification and Assessment) Act 1989

Deals with the importation, storage, use, transportation and handling of these substances.


Australian Heritage Council Act 2003

Provides for the identification and preservation at a Commonwealth level of aspects of the natural environment of national interest.

Natural Heritage Trust of Australia Act 1997

This Act establishes the Natural Heritage Trust of Australia Reserve. This Act also establishes the Natural Heritage Trust Advisory Committee.


The main objective of the establishment of the Reserve is to conserve, repair and replenish Australia's natural capital infrastructure. Money in the Reserve will be spent on the environment, sustainable agriculture and natural resources management.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

This Act has been developed to redress the current decline, and to prevent further decline, in the quality of Australia's natural environment.

Water Act 2007 and Water Efficiency Labelling and Standards Act 2005

There is a growing need to reduce water consumption across Australia as populations increase and climate change results in more frequent extreme dry weather conditions. Water shortages and longer-term security of water supply are an increasing concern for many of our major cities. To help to reduce urban water consumption on a national scale, the Australian Government, in collaboration with State and Territory governments, has introduced a Water Efficiency Labelling and Standards (WELS) Scheme, which applies national mandatory water efficiency labelling and minimum performance standards to household water-using products.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

5.3 National Policies

Intergovernmental Agreement on the Environment (IGAE) 1992

The IGAE was developed between the Commonwealth, States and Territories, and attempts to define environmental policy and management responsibilities of each level of government. In some areas, particularly pollution control and waste management, the IGAE sets up procedures which aim to produce common environmental standards and guidelines throughout Australia.

National Packaging Covenant

The National Packaging Covenant is a voluntary initiative by government and Industry, to reduce the environmental effects of packaging on the environment. It is designed to minimise the environmental impacts arising from the disposal of used packaging, conserve resources through better design and production processes and facilitate the re-use and recycling of used packaging materials.

National Strategy for Ecologically Sustainable Development

The National Strategy for Ecologically Sustainable Development (NSES) provides broad strategic directions and framework for governments to direct policy and decision-making. The Strategy facilitates a co-ordinated and co-operative approach to ecologically sustainable development (ESD) and encourages long-term benefits for Australia over short-term gains.


The NSES addresses many key areas for action identified in Agenda 21. These include issues across a number of sectors such as manufacturing, agriculture and mining; and also cover broader inter-sectoral issues such as gender, native vegetation, pricing and taxation, coastal zone management, education and training. To ensure the goals and values of all Australians were included, the Strategy was developed in consultation with the community, industries, interested groups, scientific organisations, governments and individuals. Although it primarily guides the decisions of governments, the strategy is also useful for community, industry and business groups.

The NSES was adopted by all levels of Australian government in 1992.

Since 1992, the pursuit of ecologically sustainable development has been increasingly incorporated into the policies and programs of Australian governments as a significant policy objective (for example, the Australian Government's Environment Protection and Biodiversity Conservation Act 1999).

National Strategy for the Conservation of Australia's Biological Diversity

The goal for the National Strategy for the Conservation of Australia's Biological Diversity is to protect biological diversity and maintain ecological processes and systems. The strategy seeks to provide a systematic approach to this complex problem, drawing upon and improving existing

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

strategies, such as the National Strategy for Ecologically Sustainable Development, with regard to their protection of Australia's biodiversity.

Commonwealth Procurement Guidelines (December 2008)

The **Commonwealth Procurement Guidelines** (CPGs) establish the core procurement policy framework and articulate the Government's expectations of all departments and agencies (agencies) subject to the **Financial Management and Accountability Act 1997** (FMA Act) and their officials¹, when performing duties in relation to procurement. The CPGs establish the procurement policy framework within which agencies determine their own specific procurement practices.

Chief Executive's Instructions and Operational Guidelines for Procurement is a part of the Good Procurement Practice (GPP) series published by the Department of Finance and Administration. The purpose of the GPP booklets is to explain procurement policy in practical terms and to provide examples of good practice. The booklets support the CPGs and the relevant Financial Management Guidance publications. The series is not intended to be binding on agencies but rather to assist agencies.


5.4 State Legislation

ACT legislation

- ACT Heritage Act 2004
- Building Act 2004
- Dangerous Goods (Road Transport) Act 2009
- Dangerous Substances Act 2004
- Environment Protection Act 1997
- Environment Protection Regulation 2005
- Fuels Control Act 1979
- Lakes Act 1976
- Litter Act 2004
- National Land Ordinance 1989
- Nature Conservation Act 1980
- Public Health Act 1997
- Smoke Free Public Places Act 2004
- Waste Minimisation Act 2001
- Water and Sewerage Act 2000

New South Wales legislation

- Coastal Protection Act 1979
- Contaminated Land Management Act 1997
- Dangerous Goods (Road and Rail Transport) Act 2008
- Environmentally Hazardous Chemicals Act 1985

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


- Environmental Planning and Assessment Act 1979
- Environmental Trust Act 1998
- Forestry Act 2012
- Heritage Act 1977
- Marine Parks Act 1997
- Mining Act 1992
- National Environment Protection Council (NSW) Act 1995
- National Parks and Wildlife Act 1974
- Native Vegetation Act 2003
- Ozone Protection Act 1989
- Plantations and Reafforestation Act 1999
- Pesticides Act 1999
- Protection of the Environment Administration Act 1991
- Protection of the Environment Operations Act 1997
- Radiation Control Act 1990
- Recreation Vehicles Act 1983
- Road Transport Act 2013
- Soil Conservation Act 1938
- Threatened Species Conservation Act 1995
- Waste Avoidance and Resource Recovery Act 2001
- Wilderness Act 1987

Victorian legislation

- Catchment and Land Protection Act 1994
- Climate Change Act 2010
- Climate Change and Environment Protection Amendment Act 2012
- Conservation, Forests and Lands Act 1987
- Dangerous Goods Act 1985
- Environment Protection Act 1970
- Environmental Protection (Resource Efficiency) Act 2002
- Flora and Fauna Guarantee Act 1988
- Land Act 1958
- National Parks Act 1975
- National Environment Protection Council (Victoria) Act 1995
- Planning and Environment Act 1987
- Pollution of Waters by Oils and Noxious Substances Act 1986
- Road Safety Act 1986
- Road Transport (Dangerous Goods) Act 1995
- Water Act 1989

Queensland legislation

- Biodiscovery Act 2004


	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

- Clean Energy Act 2008
- Coastal Protection and Management Act 1995
- Electricity Act 1994
- Environmental Protection Act 1994
- Fire and Rescue Services Act 1990
- Fisheries Act 1994
- Forestry Act 1959
- Land Act 1994
- Marine Parks Act 2004
- Mineral Resources Act 1989
- National Environment Protection Council (QLD) Act 1994
- National Trust of Queensland Act 1963
- Nature Conservation Act 1992
- Public Health Act 2005
- Plant Protection Act 1989
- Queensland Heritage Act 1992
- Radiation Safety Act 1999
- Soil conservation Act 1986
- Sustainable Planning Act 2009
- Transport Operations (Marine Pollution) Act 1995
- Transport Operations (Road Use Management) Act 1995
- Vegetation Management Act 1999
- Waste Reduction and Recycling Act 2011
- Water Act 2000
- Wild Rivers Act 2005

Western Australian legislation

- Carbon Rights Act 2003
- Conservation and Land Management Act 1984
- Contaminated Sites Act 2003
- Dangerous Goods Safety Act 2004
- Environmental Protection Act 1986
- Land Administration Act 1997
- Litter Act 1979
- Metropolitan Water Supply, Sewerage and Drainage By-Laws 1981
- National Environment Protection Council (WA) Act 1996
- Road Traffic Act 1974
- Soil and Land Conservation Act 1945
- Waste Avoidance and Resource Recovery Act 2007
- Waterways Conservation Act 1976

South Australian legislation

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


- Aquaculture Act 2001
- Coast Protection Act 1972
- Dangerous Substances Act 1979
- Development Act 1993
- Environment Protection Act 1993
- National Environment Protection Council (SA) Act 1995
- Natural Resources Management Act 2004
- South Australian Public Health Act 2011
- Radiation Protection Control Act 1982
- Road Traffic Act 1961
- Zero Waste SA Act 2004

Tasmanian legislation

- Dangerous Goods (Road and Rail Transport) Act 2010
- Environmental Management and Pollution Control Act 1994
- Litter Act 2007
- National Environment Protection Council (Tas) Act 1995
- Public Health Act 1997
- Transport Act 1981
- Water Management Act 1999

Northern Territory legislation

- Agriculture and Veterinary Chemicals (NT) Act
- Dangerous Goods Act
- Environmental Assessment Act
- Environmental Offences and Penalties Act
- Litter Act
- Marine Pollution Act
- National Environment Protection Council (NT) Act
- Northern Territory Environment Protection Authority Act
- Nuclear Waste, Transport, Storage and Disposal (Prohibition) Act
- Waste Management and Pollution Control Act
- Water Act

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

6 PLANNING


6.1 Environmental Aspects

Barkly Plumbing has reviewed all of its activities, products and services that it can control and influence, including planned and new developments and new and modified activities, products and services and has identified all of its environmental aspects. These are listed in a Register of Environmental Aspects.

Each identified environmental aspect is subject to a qualitative risk analysis based on likelihood and consequences of environmental impact or impact on the organisation from environment-related issues, in the context of *existing* measures to control the risk. Both positive and negative impacts can be considered. The risk analysis matrix is as follows:

LIKELIHOOD	CONSEQUENCES				
	Catastrophic	Major	Moderate	Minor	Insignificant
	1	2	3	4	5
A (almost certain/daily)	Extreme	Extreme	Extreme	High	High
B (likely/weekly)	Extreme	Extreme	High	High	Medium
C (possible/monthly)	Extreme	Extreme	High	Medium	Low
D (unlikely/annually)	Extreme	High	Medium	Low	Low
E (rare)	High	High	Medium	Low	Low

Likelihood refers to the possibility or frequency of an environmental impact. The organisation undertakes many routine activities that have an environmental impact on a daily or relatively frequent basis. Other activities are done less routinely, and environmental incidents can also occur. The following criteria explain the five categories of likelihood:

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

- Almost certain/daily: An environmental impact or impact on the organisation from an environmental-related issue is expected to occur in most circumstances, or will occur on a daily basis.
- Likely/weekly: An environmental impact or impact on the organisation from an environmental-related issue will probably occur in most circumstances, or will occur on a weekly basis.
- Possible/monthly: An environmental impact or impact on the organisation from an environmental-related issue could occur, or will occur on a monthly basis.
- Unlikely/annually: An environmental impact or impact on the organisation from an environmental-related issue could occur but is not expected, or will occur annually.
- Rare: An environmental impact or impact on the organisation from an environmental-related issue would occur only in exceptional circumstances.

The following provides criteria for determining **consequence** to the environment or the agency from an environment-related issue:


- Catastrophic: Widespread, irreparable environmental damage; loss of human life or long term human health effects; national attention; serious litigation; over \$1 million to manage consequences.
- Major: Widespread, medium to long term impact; serious human health impacts; state-wide or national attention; major breach of legal requirements; major disruption to operations; agency's reputation badly tarnished; \$100,000 to \$1 million to manage consequences.
- Moderate: Localised medium to long term impact; moderate contribution to climate change; moderate human health impacts requiring medical treatment; regional media attention; moderate breach of legal requirements with fine; \$10,000 to \$100,000 to manage consequences.
- Minor: Localised short to medium term impact; minor contribution to climate change; minor and reversible human health impacts treatable with first aid; negative publicity from local media; minor breach of legal requirements; \$1000 to \$10,000 to manage consequences.
- Insignificant: Limited impact to a local area but no long-term effects; concern or complaints from neighbours; no injury to people; minor technical nonconformity but no legal nonconformity; less than \$1000 cost to the agency to manage consequences.

Conducting a risk analysis results in the allocating of a risk level of *extreme*, *high*, *moderate* or *low* for each environmental aspect. Environmental aspects with an *extreme* or *high* risk are considered to be *significant*, that is, they have or can have a significant environmental impact.

Environmental aspects associated with a legal requirement, or another requirement to which the organisation subscribes, such as an Australian Government policy, are also considered to be significant, regardless of the outcome of the risk analysis.

Significant environmental aspects of the agency are flagged in the Register of Environmental Aspects. These are given priority for management, and are taken into account in establishing, implementing and maintaining the agency's environmental management system.

The Register of Environmental Aspects is reviewed each year to ensure that it is kept up to date. It is also reviewed if there is any change to activities, products or services of the agency.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


6.2 Objectives, Targets

Consistent with our environmental policy, measurable objectives and targets are set each year for our significant environmental aspects and recorded in a Register of Environmental Objectives and Targets. The register also lists action plans, improvement programs and controls for achieving those objectives and targets, as well as key performance indicators (KPIs) to monitor progress in achieving the objectives and targets. The register is revised each year in the management review in the item on the extent to which objectives and targets have been met.

Forms


Register of Environmental Objectives and Targets - Form 3.1

Register of Environmental Aspects – Form 3.2


	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Form 3.1 - Register of Environmental Objectives and Targets

Aspect no.	Aspect description	Objective	Target & date	Action plan, improvement program or control	Key Performance Indicator (KPI)
1	Use of electricity for office lighting	Reduce annual electricity consumption for lighting	5% reduction	Energy consumption awareness	kWh
2	Use of electricity for air-conditioning	Reduce annual electricity consumption for air conditioning	5% reduction	Energy consumption awareness	kWh
3	Use of electricity for computer & other office equipment	Reduce annual electricity consumption for air conditioning	5% reduction	Energy consumption awareness	kWh
6	Consumption of paper	Reduce annual paper & printing purchases by 5%	5% reduction		
13	Generation of waste from	Segregation of waste for			

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Aspect no.	Aspect description	Objective	Target & date	Action plan, improvement program or control	Key Performance Indicator (KPI)
	employees kitchens	recycling			

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Form 3.2 - Register of Environmental Aspects

No.	Environmental aspect	Associated environmental impact	Likelihood	Consequence	Risk rating	Significant	Control Measures
			A: Almost certain/daily B: Likely/weekly C: Possible/monthly D: Unlikely/annually E: Rare	1: Catastrophic 2: Major 3: Moderate 4: Minor 5: Insignificant	Extreme High Medium Low	Yes No	
1	Use of electricity	Generation of greenhouse gases	C	4	Low	No	<ul style="list-style-type: none"> Only hand tools used on site
3	Generation of domestic waste	Use of landfill	B	5	Medium	Yes	<ul style="list-style-type: none"> Recycling initiatives
4	Generation of	Use of landfill	A	5	High	Yes	<ul style="list-style-type: none"> Recycling initiatives



HSEQ_00071_Environmental Manual

Issue: 1:0

HSEQ

Issued: February 2022

Environmental Manual

Next Review: October 2022

No.	Environmental aspect	Associated environmental impact	Likelihood	Consequence	Risk rating	Significant	Control Measures
	industrial waste						
7	Use of petrol and diesel	Generation of greenhouse gases & use of fossil fuel	A	5	High	No	<ul style="list-style-type: none"> Vehicles not left idling Car pooling where possible
8	Use of water	Use of water resources	A	3	High	Yes	<ul style="list-style-type: none"> Considered approach to when to turn water off and on
9	Dust	Pollution of air, disturbance to flora and fauna	B	4	High	No	<ul style="list-style-type: none"> Using water for dust suppression
10	Noise and vibration	Pollution of air, disturbance to flora and fauna	B	4	High	Yes	<ul style="list-style-type: none"> Operating in residential areas only during permitted hours
11	Pollution into	Pollution of	C	3	Medium	Yes	<ul style="list-style-type: none"> Appropriate use of chemicals to avoid



HSEQ_00071_Environmental Manual

Issue: 1:0


HSEQ

Issued: February 2022


Environmental Manual

Next Review: October 2022

No.	Environmental aspect	Associated environmental impact	Likelihood	Consequence	Risk rating	Significant	Control Measures
	waterways	waterways					getting into waterways
12	Chemical spills	Pollution of waterways and land	C	3	Medium	Yes	<ul style="list-style-type: none"> Spill kits with all teams Staff trained in chemical handling and clean up
13	Vegetation clearing	Disturbance of habitats, impact on flora and fauna	B	3	High	Yes	<ul style="list-style-type: none"> Plans include where is permitted to be cleared Only clearing what is necessary Relocating wildlife as required
14	Excavations	Disturbance of habitats, impact on flora and fauna	A	4	High	Yes	<ul style="list-style-type: none"> Plans include where is permitted to be cleared Only clearing what is necessary Relocating wildlife as required
15	Exhaust fumes	Generation of	A	4	High	Yes	<ul style="list-style-type: none"> Vehicles not left idling

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

No.	Environmental aspect	Associated environmental impact	Likelihood	Consequence	Risk rating	Significant	Control Measures
		greenhouse gases & use of fossil fuel Pollution of air					
16	Demolition	Disturbance of habitats, impact on flora and fauna Pollution of air Noise pollution	A	4	High	No	<ul style="list-style-type: none"> Operating in residential areas only during permitted hours Plans include where is permitted to be demolished Only demolish what is necessary Relocating wildlife as required

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

7 IMPLEMENTATION AND OPERATION


Objective

Barkly Plumbing will ensure that all employees are informed of their own responsibilities for environmental management in the workplace. Barkly Plumbing will ensure that employees have specific knowledge concerning the management of environmental hazards created by tasks undertaken. This will be achieved through training in workplace procedures, environment, equipment and materials.

7.1 Resources, Roles, Responsibility and Authority

Various positions in the organisation have roles, responsibilities and authorities for managing environmental aspects, action plans, programs and controls. All of these roles, responsibilities and authorities are documented in a Responsibility Matrix.

- A special management role of environmental co-ordinator has responsibility for overall co-ordination of the environmental management system in accordance with the requirements of AS/NZS ISO 14001:2004 and reporting its performance, including recommendations for improvement, to top management for review. The specific tasks associated with this role include:
 - Maintenance of the Register of Environmental Aspects.
 - Maintenance of the Register of Legal and Other Requirements.
 - Maintenance of the Register of Environmental Objectives and Targets.
 - Maintenance of the Responsibility Matrix, including records of incumbents in positions and roles, competence requirements, competence possessed, training needs, training plans and training undertaken.
 - Assessment of general environmental awareness of employees and contractors.
 - Control of documents, forms and records required by the EMS.
 - Co-ordination of environmental monitoring and measurement.
 - Evaluation of compliance with legal and other requirements relevant to the EMS.
 - Management of the internal audit program.
 - Co-ordination of corrective and preventive action.
 - Maintenance of the emergency preparedness and response procedure and management of testing the procedure.
 - Co-ordination of management review of the EMS.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

7.2 Competence, Training and Awareness

Positions and roles which have responsibility for an activity, product or service that has the potential to cause a significant environmental impact are also included in the Responsibility Matrix, along with competence requirements of each position and role. Competence refers to the knowledge, understanding, skills or abilities required for a person to effectively and efficiently carry out the position or role. Competence can be determined through appropriate education, training, experience and assessment.

For each person in each position and role, competence possessed, training needs, and training or other personal development undertaken to acquire the required competence are also recorded in the Responsibility Matrix. Copies of education and training qualifications are maintained in personnel files.

The Responsibility Matrix is updated as required with changes to positions, roles and employees, and training or other personal development undertaken.

General awareness of the organisation's environmental management system is propagated through an EMS training package provided during induction of employees and contractors, as well as in refresher sessions. General EMS awareness is assessed following the induction and refresher sessions, and records of assessment are maintained with the employee's members training records.

More specific training on Barkly Plumbing's Environmental Management System is provided on documented operational procedures and emergency preparedness and response as required. Records of such training are made in the Responsibility Matrix.


7.3 Communication

Information about the organisation's environmental aspects and environmental management system is communicated among the levels and functions of the organisation through:

- EMS awareness package provided during induction and at refresher sessions.
- Provision of this manual and supporting documentation as requested.
- Monthly employees meetings.

Communication received from external parties regarding the organisation's environmental management is managed in the same way as formal communication received by the organisation on all issues. However, it is also tracked in the organisation's environmental corrective and preventive action process by the environmental co-ordinator. The environmental co-ordinator is also responsible for reporting on communication from external interested parties, including complaints, in management reviews.

External communication required during response to emergency situations and accidents is documented in its emergency response plan.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

The organisation will decide on a case by case basis whether to communicate externally about its significant aspects. Top management and the environmental co-ordinator will be involved in making this decision. Records of all communication will be kept, including the organisation's responses, and the communication will be tracked in the agency's environmental corrective and preventive action process.

7.4 Documentation

A Register of Documents and Records lists policies, manuals, procedures, plans, external documents, registers, forms, templates and records relevant to the environmental management system.

7.5 Control of Documents

All environmental management system documents are filed within the organisation's record management system. Each internal document is identified by a unique name and a *last updated* date and listed in the Register of Documents and Records. Each external document required for the environmental management system is also recorded in this register.

This EMS manual specifies the frequency for which certain documented information is revised. For example, the environmental policy, environmental aspects, legal and other requirements, and objectives and targets must be revised at least annually, while the Responsibility Matrix requires monthly revision.


Barkly Plumbing's environmental management system documents are dynamic pieces of information used to guide what people do—they need to be kept up to date and relevant to the organisation's needs. Changes to the environmental policy, this EMS manual, a documented procedure, an environmental management plan, a form, or any register or matrix referenced in this manual require approval from the environmental co-ordinator. Corrective and preventive action resulting from identification of actual and potential nonconformities often results in recommendations for changes to documents. Suggestions for improvement to documents can also be made directly on corrective and preventive action records.

Managers are expected to promote relevant and significant changes to documents to their employees.

The immediate earlier version of a revised document is stored as a record, to which only the environmental co-ordinator and the system administrator have access.

7.6 Operational Control

The following documented procedures and work instructions have been devised on the basis of risk to control operations associated with significant environmental aspects, including the significant environmental aspects of goods and services used by the agency:

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

- Waste Control (Including Hazardous waste).
- Energy Consumption.
- Noise.
- Water Pollution (general).
- Energy/Water Consumption.

These procedures and work instructions are also listed in the Register of Documents and Records.

7.7 Emergency Preparedness and Response

Barkly Plumbing identifies potential emergencies and accidents that can have an environmental impact during the identification of environmental aspects. Environmental emergencies and accidents are therefore subject to risk analysis and determination of environmental significance and handled accordingly in the environmental management system. Objectives and targets are set for environmental emergencies and accidents that are regarded as significant environmental aspects and an emergency response plan is established to achieve the objectives and targets.

Environmental emergencies and accidents are regarded as environmental nonconformities. Accordingly, in the event of an occurrence, immediate action is taken to mitigate the environmental impact, followed by corrective action to avoid a recurrence.

The emergency response plan is tested in each building each quarter. Planned tests are recorded in a Register of Emergency Response Tests. The organisation's emergency preparedness and response is reviewed after every test and after the occurrence of each environmental emergency and accident using the Emergency Test and Incident Review Form. The aspect identification and significant impact determination of an environmental emergency or accident, and the organisation's emergency response plan are revised where appropriate after a review.


Forms

Responsibility Matrix – Form 4.1

Register of Documents and Records – Form 4.2

Register of Emergency Response Tests – Form 4.3

Emergency Test and Incident Review form – Form 4.4

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Form 4.1 - Responsibility Matrix, Training Needs Analysis and Training Plan

Role / Position	Name	Responsibilities	Qualifications/competency	Training needs	Planned dates	Training details	Remarks
General Manager or Director		<ul style="list-style-type: none"> Participate in Management review Setting Policy Reviewing Objective & Targets Resource allocation 	Senior Business Administrator	EMS awareness (in house)			
Project Co-ordinator		<ul style="list-style-type: none"> Participate in Management review Implementing environmental policy Implementing programs for achieving set 		EMS Awareness (in house) Auditing Course			



HSEQ_00071_Environmental Manual

Issue: 1:0


HSEQ

Issued: February 2022


Environmental Manual

Next Review: October 2022

Role / Position	Name	Responsibilities	Qualifications/ competency	Training needs	Planned dates	Training details	Remarks
		<p>objectives & targets</p> <ul style="list-style-type: none"> Monitoring and measurement of environmental performance Overall responsibility for system implementation Conducting internal audits as per schedule 					
EMS committee members		<ul style="list-style-type: none"> Awareness on Policy & EMS Implementing program for achieving set Objective & Targets Helping in Monitoring and 	EMS administration	EMS Awareness (in house)			

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


Role / Position	Name	Responsibilities	Qualifications/ competency	Training needs	Planned dates	Training details	Remarks
		measurement <ul style="list-style-type: none"> • Training respective employees in implementing the waste management strategy 					
Employees		<ul style="list-style-type: none"> • Awareness on Policy & EMS 	N/A	EMS Awareness (in house)			

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


Form 4.2 - Register of Documents and Records

Part A: Policy, manual, procedures, plans and external documents

Document reference	Brief description of document
EMS Manual	Description of the scope of the environmental management system, and the documented procedures that underlie the system
Environmental Policy	Statement of the organisation's commitments to its environmental management system.
Emergency Response Plan	Procedures for responding to a comprehensive range of emergency situations that may affect the organisation
Detailed work instructions or operational procedures relevant to the EMS	<ul style="list-style-type: none"> • Waste Control • Energy Consumption • Noise • Water Pollution • Fauna and Flora
Documents associated with environmental action plans e.g. energy savings plan	
Legislation & regulations relevant to the EMS	


	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Document reference	Brief description of document
Government policies relevant to the EMS	
AS/NZS ISO 14001:2004	Requirements for environmental management systems
Other external documents	


	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Part B: Registers, forms and templates

Form or template reference	Brief description of form or template
Register of Environmental Aspects	Register of environmental aspects with their risk score
Register of Environmental Objectives & Targets	Register of environmental objectives, targets and action plans for significant environmental aspects
Register of Legal and Other Requirements	Register showing how legal and other requirements apply to environmental aspects, with provision for evaluation of compliance
Responsibility Matrix	Identifies responsibilities and authorities of positions, roles and individuals for managing environmental aspects and the environmental management system, and of individuals performing tasks that have a potential to cause a significant environmental impact; also records competencies and identifies training needs, and plans the delivery of training.
Assessment of General Environmental Management System Awareness	Questionnaire to assess awareness and competency about environmental management system.
Generic Internal Audit Checklist	Generic checklist for internal audit of environmental management system to requirements of AS/NZS ISO 14001:2004
Internal Audit Report Template	Template for internal audit reports of environmental management system

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


Form or template reference	Brief description of form or template
Generic Internal Audit Schedule	Generic schedule for internal audit of environmental management system for a single site agency
Register of Environmental Nonconformity and Suggestions for Improvement	Register of actual and potential environmental nonconformity and suggestions for improvement to the environmental management system managed with corrective and preventive action
Corrective and Preventive Action Form	Form for managing nonconformity and suggestions for improvement with corrective and preventive action
Register of Emergency Response Tests	Register used for planning tests of emergency preparedness and response
Emergency Test and Incident Review Form	Form for reviewing each test of emergency preparedness and response, and actual emergencies and accidents
Schedule Monitoring & Measurement	Annual table for monthly monitoring and measurement of key characteristics of the environmental management system
Management Review Template	Template for a briefing in preparation for a management review of the environmental management system
Register of Documents and Records	This form.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


Form or template reference	Brief description of form or template

Part C: Records


Record reference	Brief description of record	Storage location	Retention time
Register of Environmental Aspects	Annual register of environmental aspects with their risk analysis and determination of significance		
Register of Environmental Objectives & Targets	Annual register of environmental objectives, targets and action plans for significant environmental aspects		
Register of Legal and Other Requirements	On-going register showing how legal and other requirements apply to environmental aspects, with provision for evaluation of compliance		

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Record reference	Brief description of record	Storage location	Retention time
Responsibility Matrix	Identifies responsibilities and authorities of positions, roles and individuals for managing environmental aspects and the environmental management system, and of individuals performing tasks that have a potential to cause a significant environmental impact; also records competencies and identifies training needs, and plans the delivery of training.		
Assessment of General Environmental Management System Awareness	Questionnaire to assess awareness and competency about environmental management system		
Internal Audits	Schedules, completed checklists, and reports for internal audit of environmental management system		
Register of Environmental Nonconformity & Suggestions for Improvement	Register of corrective and preventive actions taken on actual and potential nonconformities and suggestions for improvement		
Corrective & Preventive Action Records	Completed forms to record corrective and preventive action		


	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Record reference	Brief description of record	Storage location	Retention time
Register of Emergency Response Tests	Register of planned tests of emergency preparedness and response		
Emergency Test & Incident Reviews	Completed reviews of tests of emergency preparedness and response and actual emergencies and accidents		
Monitoring & Measurement Records	Annual tables for monthly monitoring and measurement of key characteristics of the environmental management system		
Management Review	Records of management review		
Documents and Records	Registers of documents, forms and templates, and records		

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


Form 4.3 - Register of Emergency Response Tests

No.	Description of emergency response test	Planned date	Responsibility	Remarks


	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Form 4.4 - Emergency Test and Incident Review Form

Incident type	Spill <input type="checkbox"/>	Fire <input type="checkbox"/>	Gas leak <input type="checkbox"/>	Bomb threat <input type="checkbox"/>	Other: ... <input type="checkbox"/>
Drill <input type="checkbox"/> Incident <input type="checkbox"/>		Responsibility/Supervisor:		Assisted by:	
Date:	Start time:	End time:	No. employees participated:		
Description of emergency drill conducted or actual incident:					
Observations / compliance with procedures:					

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

<p>What could be improved (with underlying or root cause if appropriate)?</p>		
<p>Nonconformity or preventive action raised? (If so, put CPA number here):</p>		
Completed by:	Date:	Remarks:

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

8 CHECKING

8.1 Monitoring and Measurement

An annual Schedule of Monitoring and Measurement is used to record data on the organisation's environmental performance on a monthly basis.


The environmental co-ordinator is responsible for analysing the results of monitoring and measurement and reporting on the environmental performance of the organisation, in particular the extent to which environmental objectives and targets have been met, in management reviews.

8.2 Evaluation of Compliance

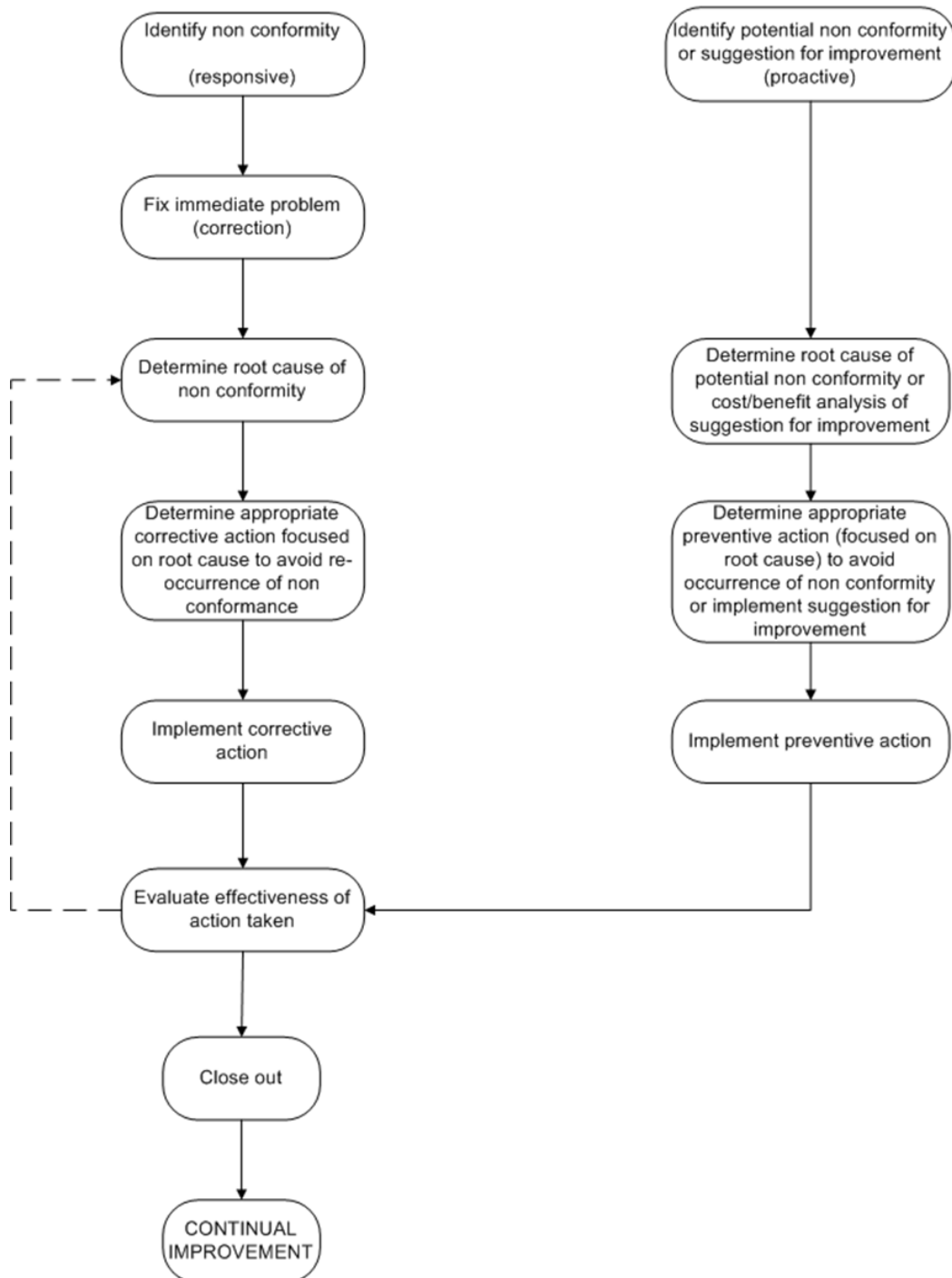
Once a year, a review or compliance audit is conducted to evaluate compliance with legal requirements applicable to the Barkly Plumbing and other requirements to which the organisation subscribes. This is undertaken by completing the following two columns in the Register of Legal and Other Requirements:


- Evidence required for compliance.
- Evaluation of compliance (yes/no).

The register that is completed in this review or compliance audit becomes a record of the evaluation of compliance. Where non-compliance is detected, this is followed up with corrective action (see 8.3 below).

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

8.3 Nonconformity, Corrective Action and Preventive Action



	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

The above flowchart illustrates the organisation's process for identifying actual and potential environmental nonconformity, recording suggestions for improvement to environmental management, taking appropriate action to correct nonconformity and mitigate environmental impact, taking corrective action to avoid recurrence of nonconformity and taking preventive action to avoid occurrence of nonconformity or implement a suggestion.

This process has the ultimate goal of driving continual improvement of the environmental management system.


Actual and potential nonconformity is identified and suggestions for improvement are made by the following means:

- Internal audit.
- External audit.
- Site inspections.
- Feedback from external parties.
- Complaints from customers or other stakeholders.
- Suggestions for improvement from employees and contractors.
- Occurrence of environmental emergencies and accidents.
- Testing of emergency preparedness and response.
- Management review.

The environmental co-ordinator is responsible for maintaining a Register of Environmental Nonconformity and Suggestions for Improvement to Environmental Management. Each record in this register is given a Corrective and Preventive Action Number (CPA No.) and is associated with a Corrective and Preventive Action Form used to analyse nonconformity and suggestions for improvement and manage action taken. The Corrective and Preventive Action Form provides for the following:

- The taking of immediate action to correct the nonconformity (i.e. correction) and mitigate environmental impact.
- Root cause analysis of actual nonconformity.
- The taking of corrective action addressing the root cause to avoid recurrence of nonconformity, or the taking of preventive action to avoid occurrence of nonconformity or implement a suggestion for improvement.
- Evaluation of the effectiveness of the action taken.
- Close out.
- Corrective and preventive action often requires changes to environmental system documentation. In such cases, this process feeds into the process for control of documents.

The environmental co-ordinator is responsible for reporting on the status of corrective and preventive action in management reviews.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

8.4 Control of Records

Records required by the agency's environmental management system are listed in the Register of Documents and Records. In this register, records are given an identifier and a description, and their location and retention period are recorded.

An Archives Register lists all paper records relevant to the environmental management system held in archival storage, and their disposal date and means.

Records required by the environmental management system are primarily stored electronically. Records originating in paper form are scanned, after which the electronic version is the controlled version.

8.5 Internal Audit

The organisation has established and implemented an annual internal audit program with the objective of determining whether the environmental management system conforms to planned arrangements, including the requirements of AS/NZS ISO 14001:2004 and this EMS manual, and has been properly implemented and maintained.

The environmental co-ordinator manages the internal audit program and reports the results of internal audits and the effectiveness of the program to top management.


The internal audit program covers all of the organisation's operations units and functions, environmental management system elements, and the full geographical scope of the agency's environmental management system over the year. Some units, functions, elements and sites may be audited more than once annually if justified on the basis of environmental risk. The program also provides for additional audits that may be required to follow up scheduled audits.

Internal audits are scheduled each month except December and January, when many employees are on leave, and June, which is the financial year end.

Audit criteria in the program include the requirements of AS/NZS ISO 14001:2004 for environmental management systems, the requirements of this EMS manual, the requirements of work instructions listed in this manual to control operational activities associated with significant environmental aspects, and legal and other requirements.

One audit each year is devoted to evaluating compliance with legal and other requirements. The Register of Legal and Other Requirements is used to record the evidence and findings of this audit.

An Internal Audit Checklist is used to record evidence for audits of the requirements of AS/NZS ISO 14001:2004 and this EMS manual. Findings of such audits are reported using an Internal Audit Report Template.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Internal auditors of the environmental management system must attend a course on environmental management systems and a course on internal auditing as a minimum requirement before being allowed to conduct an audit on their own. Auditors are encouraged and supported by the agency to achieve certificates of attainment in environmental management systems and auditing/lead auditing.

Auditors are selected for audits with a view to ensuring objectivity and impartiality of the audit process. That is, an auditor cannot audit the section in which he or she normally works.

Nonconformities raised in internal audits are entered into the Register of Environmental Nonconformity and Suggestions for Improvement to Environmental Management, and subject to appropriate corrective and preventive action.

Forms

Register of Environmental Nonconformity and Suggestions for Improvement – Form 5.1

Corrective and Preventive Action Form – Form 5.2

Register of Documents and Records – Form 4.2

Internal Audit Schedule – Form 5.3


Register of Legal and Other Requirements – Form 5.4

Internal Audit Checklist – Form 5.5

Internal Audit Report Template – Form 5.6


Archives Register – Form 5.7

Schedule of Monitoring and Measurement – Form 5.8

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Form 5.1 - Register of Nonconformity and Suggestions for improvement

CPA no.	Description	Category	Raised by	Assigned to	Assigned date	Close date	Remarks

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Form 5.2 - Corrective and Preventive Action Form

CPA No: Environmental incident Nonconformity from audits System failure From complaints/notices/external parties

Other

Category Document control Suggestion for improvement Wrong instructions Training
 Contractor fault Operator fault

Raised by:	Assigned to:	Date:	Remarks:
Description:			



HSEQ_00071_Environmental Manual

Issue: 1:0

HSEQ

Issued: February 2022

Environmental Manual

Next Review: October 2022

Proposed immediate action (correction):

Completed by:

Date:

Remarks:

Root cause analysis required: Yes No


Underlying / root cause:

Determined by:


Date:

Remarks:

Proposed action for long term solution (corrective/preventive action):


	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Completed by:	Date:	Remarks:
Comments on effectiveness of action taken:		
Closed out by:	Date:	Remarks:


	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Form 5.3 - Internal Audit Schedule

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Policy												
Environmental aspects												
Legal & other requirements												
Objectives, targets, programs												
Resources, roles, responsibility, authority												
Competence, training, awareness												
Communication												
Documentation												
Control of documents												
Operational control												
Emergency preparedness &												


	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

response												
Monitoring & measurement												
Evaluation of compliance												
Nonconformity, corrective & preventive action												
Control of records												
Internal audit												
Management review												


	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Form 5.4 - Register of Legal and Other Requirements


Aspect No.	Environmental aspect description	Legal or other requirement	Source	Evidence required for compliance	Evaluation of compliance (yes/no)
1	Use of electricity for office lighting	Targets for energy use, and annual reporting of energy performance to DEWHA	Energy Efficiency in Government Operations (EEGO) Policy	Monitoring of energy use, and current annual report to DEWHA of energy performance	No
2	Use of electricity for office air-conditioning				
3	Use of electricity for computers & other office equipment				
13	Energy use in kitchen				

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Aspect No.	Environmental aspect description	Legal or other requirement	Source	Evidence required for compliance	Evaluation of compliance (yes/no)
4	Generation of waste paper & cardboard in office	Monitoring of waste management, waste audits, waste management plan, provision of infrastructure to facilitate recycling	National Government Waste Reduction & Purchasing Guidelines; ACT No Waste By 2010 Management Strategy	Current annual report on progress of waste management plan	No
5	Generation of general office waste				
14	Generation of waste from employees kitchen				
15	Use of water in employees kitchens & toilets	Targets for water use	Permanent Water Conservation Measures under Utilities (Water Conservation) Regulation 2006 (ACT)	Complete records of monitoring water use;	No


	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Aspect No.	Environmental aspect description	Legal or other requirement	Source	Evidence required for compliance	Evaluation of compliance (yes/no)
		Include report on environmental matters in annual report	Section 516A of Environment Protection & Biodiversity Conservation Act 1999 (Cwlth)	Comprehensive report on environmental management in latest annual report	No
		Certification of environmental management system to requirements of AS/NZS ISO 14001:2004	AS/NZS ISO 14001:2004—Environmental management systems—Requirements with guidance for use	Current certificate from accredited conformity assessment body	No


	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Form 5.5 - Internal Audit Checklist


Prompts	Notes – Audit Evidence
4.1 SCOPE OF EMS	
<ul style="list-style-type: none"> • Documented scope of EMS • Scope of certification to requirements of AS/NZS ISO 14001:2004 (if different) • Exclusions from scope of certification • Justification of exclusions 	
4.2 ENVIRONMENTAL POLICY	
<ul style="list-style-type: none"> • Policy is documented • Consistent with scope of EMS (i.e. covers whole scope and no broader) • Appropriate to nature, scale & environmental impacts of activities, products or services • Includes commitment to continual improvement • Includes commitment to prevention of pollution • Includes commitment to comply with applicable legal requirements • Includes commitment to comply with other requirements to which organisation subscribes relating to environmental aspects (e.g. government policy, industry guidelines, voluntary agreements) • Provides framework for setting & reviewing environmental objectives & targets 	

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


Prompts	Notes – Audit Evidence
<ul style="list-style-type: none"> • Implemented • Maintained • Communicated to everyone working for or on behalf of organisation (incl. contractors, volunteers, temp employees, remote workers) • Available to public 	
4.3.1 ENVIRONMENTAL ASPECTS	
<ul style="list-style-type: none"> • Procedure to identify environmental aspects within scope of EMS that it can control & influence • Procedure provides for planned or new developments, or new or modified activities, products & services • Procedure provides for determining significant aspects (i.e. those that have or can have significant impact on the environment) • Procedure maintenance • Information on all environmental aspects documented & up-to-date (not just significant aspects) • Significant aspects are taken into account during implementation & maintenance of EMS (e.g. communication, setting environmental objectives, audit program, training/awareness, emergency preparedness) 	
4.3.2 LEGAL & OTHER REQUIREMENTS	
<ul style="list-style-type: none"> • Procedure to identify & have up-to-date access to legal & other requirements (e.g. WPI, Greenhouse Challenge) to which your organisation subscribes directly applicable to all environmental aspects (not only significant ones) 	

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


Prompts	Notes – Audit Evidence
<ul style="list-style-type: none"> • Procedure provides for determining how these legal & other requirements apply to environmental aspects • Responsibility for identifying and determining how requirements apply • Procedure maintenance • Assurance that requirements are taken into account in the EMS 	
4.3.3 OBJECTIVES, TARGETS & PROGRAMS	
<ul style="list-style-type: none"> • Documented environmental objectives & targets at relevant functions & levels in organisation (obtain copy to check progress against several objectives & targets later*) • Objectives & targets are measurable (where practical) • Objectives & targets are consistent with the policy regarding: <ul style="list-style-type: none"> • prevention of pollution • legal & other requirements • continual improvement • Objective & targets maintained (reviewed & updated) • Legal & other requirements & significant environmental aspects are taken into account when establishing and reviewing objectives and targets • When setting objectives & targets, the following are considered: <ul style="list-style-type: none"> – technological options? – financial, operational & business requirements – view of interested parties 	

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


Prompts	Notes – Audit Evidence
<ul style="list-style-type: none"> • Environmental program(s) • Program(s) established for achieving environmental objectives & targets • Responsibility for achieving objectives & targets at relevant functions & levels in organisation • Means includes or resources allocated • Program includes timeframe 	
4.4.1 RESOURCES, ROLES & RESPONSIBILITIES	
<ul style="list-style-type: none"> • Management provides resources for implementation, maintenance & improvement of EMS (resources include human resources, specialised skills, organisational infrastructure, technology, and financial resources) • Roles, responsibilities and authorities for effective environmental management defined and documented (e.g. in position descriptions) • Roles, responsibilities and authorities for effective environmental management communicated • Management representative(s) responsible for EMS: • Management representative has responsibility for ensuring that EMS is established, implemented and maintained • Management representative has responsibility for reporting to top management on performance of EMS for review, including recommendations for improvement 	
COMPETENCE, TRAINING & AWARENESS	

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


Prompts	Notes – Audit Evidence
<ul style="list-style-type: none"> • Determination of competence of persons performing tasks on its behalf with potential to cause significant environmental impacts • Competency records • Identification of training needs associated with (all) environmental aspects &EMS (including internal audit, corrective & preventive action) • Training or other action taken to meet such needs • Training records • Procedure on making workers aware of: <ul style="list-style-type: none"> – importance of conformity with environmental policy & procedures & with requirements of EMS – significant environmental aspects & actual or potential impacts associated with their work, & environmental benefits of improved personal performance – their roles & responsibilities in achieving conformity with requirements of the EMS (including emergency preparedness & response) – potential consequences of departure from specified operating procedures • Procedure maintenance 	
4.4.3 COMMUNICATION	
<ul style="list-style-type: none"> • Procedure(s) regarding environmental aspects &EMS for: <ul style="list-style-type: none"> – internal communication between various levels & functions of organisation 	

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


Prompts	Notes – Audit Evidence
<ul style="list-style-type: none"> – receiving, recording & responding to external communication • Documented decision whether to communicate externally about significant environmental aspects • If the decision is YES, method(s) used: 	
4.4.4 DOCUMENTATION	
<ul style="list-style-type: none"> • The EMS documentation includes the following: <ul style="list-style-type: none"> – Environmental policy (cl. 4.2) – Environmental objectives & targets (cl. 4.3.3) – Description of scope of EMS (cl. 4.1) – Description of main elements of EMS& their interaction, & reference to related documents (cl. 4.4.4) – Documents & records determined to be necessary to ensure effective planning, operation & control of processes relating to significant environmental aspects (cl. 4.4.6) – Other documents & records required by AS/NZS ISO 14001:2004: <ul style="list-style-type: none"> – Environmental aspects (cl. 4.3.1) – Roles, responsibilities & authorities for environmental management (cl. 4.4.1) – Records of competence (cl. 4.4.2) – Training records (cl. 4.4.2) 	

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


Prompts	Notes – Audit Evidence
<ul style="list-style-type: none"> – Decision to communicate externally (cl. 4.4.3) – Records of monitoring performance, operational controls & conformity with environmental objectives & targets (cl. 4.5.1) – Records of calibration (cl. 4.5.1) – Records of evaluation of compliance (cl. 4.5.2) – Records of results of corrective & preventive action – Records of planning & conducting internal audits (cl. 4.5.5) – Records of management reviews (cl. 4.6) – Use of the certification mark of the certification body? – Use of JAS-ANZ logo? 	
4.4.5 CONTROL OF DOCUMENTS	
<ul style="list-style-type: none"> • Procedure(s) on document control established to: • Approve documents for adequacy prior to issue • Review & update as necessary & re-approve documents • Ensure changes & current revision status of documents are identified • Ensure relevant versions of applicable documents are available at points of use • Ensure documents remain legible & readily identifiable • Ensure external documents are identified & their distribution 	

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


Prompts	Notes – Audit Evidence
<p>controlled</p> <ul style="list-style-type: none"> Prevent unintended use of obsolete documents, and apply suitable identification to them if they are retained for any purpose. Procedure maintenance Documents required by EMS & AS/NZS ISO 14001:2004 & sighted in the audit are effectively controlled (record any nonconformities to this requirement) 	
4.4.6 OPERATIONAL CONTROL	
<ul style="list-style-type: none"> Identification & planning of operations & activities associated with significant environmental aspects consistent with policy, objectives & targets to ensure they are carried out under specified conditions: Establishment of documented procedures to control situations where their absence could lead to deviations from environmental policy & objectives & targets Procedures stipulate operating criteria Procedure maintenance Establishment of procedures related to significant environmental aspects of goods & services used by the organisation Communication of procedures & requirements to suppliers & contractors Procedure maintenance 	
4.4.7 EMERGENCY PREPAREDNESS & RESPONSE	
<ul style="list-style-type: none"> Procedures to identify potential emergency situations & potential 	

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


Prompts	Notes – Audit Evidence
<p>accidents that can have an impact(s) on the environment</p> <ul style="list-style-type: none"> • Procedure(s) includes response to emergency situations and potential accidents? • Procedures maintenance • Actual response to actual emergency situations or accidents since last audit (especially prevention or mitigation of environmental impacts) • Periodic tests of procedure(s) where practicable • Review & revision (where necessary) of emergency preparedness & response procedures, particularly after accidents or emergency situations 	
4.5.1 MONITORING & MEASUREMENT	
<ul style="list-style-type: none"> • Procedure(s) to monitor & measure on a regular basis the key characteristics of operations that can have a significant environmental impact • Procedure(s) includes recording of information to track: <ul style="list-style-type: none"> – performance – operational controls – conformity with environmental objectives & targets • Monitoring & measuring equipment is calibrated or verified • Calibration & verification records retained & up-to-date 	
4.5.2 EVALUATION OF COMPLIANCE	

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


Prompts	Notes – Audit Evidence
<ul style="list-style-type: none"> • Procedure for periodically evaluating compliance with applicable legal requirements • Procedure for periodically evaluating compliance with other requirements to which organisation subscribes • Procedure maintenance • Records of the results of periodic evaluation 	
4.5.3 NONCONFORMITY, CORRECTIVE & PREVENTATIVE ACTION	
<ul style="list-style-type: none"> • Procedure for: <ul style="list-style-type: none"> – dealing with actual & potential environmental nonconformities – taking corrective & preventive action • Procedure defines requirements for: <ul style="list-style-type: none"> – identifying & correcting nonconformities& taking action to mitigate environmental impact – investigating nonconformities, determining their cause, & taking corrective action to avoid recurrence – evaluating need for action to prevent nonconformities & implementing preventive action to avoid occurrence (including suggestions for improvement) – recording results of corrective & preventive action – reviewing effectiveness of corrective & preventive action • Action taken is appropriate to magnitude of problems & environmental impacts encountered • Changes made to EMS documentation resulting from corrective & 	

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


Prompts	Notes – Audit Evidence
preventive action	
4.5.4 CONTROL OF RECORDS	
<ul style="list-style-type: none"> • Procedures for following control of records: • Identification • Storage • Protection • Retrieval • Retention • Disposal • Procedure maintenance • Environmental records are: • Legible • Identifiable & traceable to activity, product or service involved 	
4.5.5 INTERNAL AUDIT	
<ul style="list-style-type: none"> • Procedure(s) for: <ul style="list-style-type: none"> – the responsibilities & requirements for planning & conducting audits, reporting results & retaining associated records – determination of audit criteria, scope, frequency & methods 	

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Prompts	Notes – Audit Evidence
<ul style="list-style-type: none"> • Procedure maintenance • Internal audits of EMS conducted at planned intervals: • Interval/schedule • Last audit conducted • Next audit planned • Results of audits reported to management • Audit program based on environmental importance of the operations concerned & results of previous audits (especially significant environmental aspects) • Selection of auditors & conduct of audits ensure objectivity & impartiality of audit process (e.g. training & qualifications of auditors) 	
4.6 MANAGEMENT REVIEW	
<ul style="list-style-type: none"> • Top management reviews EMS at planned intervals to evaluate continuing suitability, adequacy & effectiveness • Types of (or forums for) management reviews (include only those that are holistic and strategic): • Management reviews recorded (agendas & minutes): • Input to management review includes: <ul style="list-style-type: none"> – results of internal audits (preferably evaluation of effectiveness of internal audit program) – evaluations of compliance with legal requirements & other requirements – communication from external interested parties, including 	

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Prompts	Notes – Audit Evidence
<p>complaints</p> <ul style="list-style-type: none"> – environmental performance of the organisation – extent to which objectives & targets have been met – status of corrective & preventative action – follow up actions from previous management reviews – changing circumstances, including developments in legal & other requirements related to environmental aspects – recommendations for improvement (from management representative) • Output includes decisions & actions related to possible changes to environmental policy, objectives, targets, & other elements of EMS, consistent with commitment to continual improvement 	

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Form 5.6 - Internal Audit Report Template

Audit No.


Audit team:

Site/section/function audited:


Audit date:

AUDIT FINDINGS

Element	Code	Findings	CPA no.
Scope of EMS			
Environmental policy			
Environmental aspects			
Legal & other requirements			
Objectives, targets & programs			
Resources, roles &			

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Element	Code	Findings	CPA no.
responsibilities			
Competence, training & awareness			
Communication			
Documentation			
Control of documents			
Operational control			
Emergency preparedness & response			
Monitoring & measurement			
Nonconformity, corrective action & preventive action			
Control of records			
Internal audit			
Management review			

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


Explanation of codes:

Ma = Major nonconformity

Mi = Minor nonconformity

C = Conformity

O = Observation

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Form 5.8 - Schedule of Monitoring and Measurement

Year:

	Unit of measure	Jan	Feb	March	April	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Remarks (comment on trends and equipment calibration status)
Electricity use	kWh													
Water use	kL													
Fuel use	L													
Air travel	km													
Waste to	kg													



HSEQ_00071_Environmental Manual

Issue: 1:0

HSEQ

Issued: February 2022

Environmental Manual

Next Review: October 2022

	Unit of measure	Jan	Feb	March	April	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Remarks (comment on trends and equipment calibration status)
recycling														
Paper	kg													
Toner Cartridges	kg													
General waste	kg													
Fluorescent light tubes	kg													
No. of non-conformities														



HSEQ_00071_Environmental Manual

Issue: 1:0

HSEQ

Issued: February 2022

Environmental Manual

Next Review: October 2022

	Unit of measure	Jan	Feb	March	April	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Remarks (comment on trends and equipment calibration status)
raised														
No. of non-conformities closed														
No. of internal audits or site inspections														
No. of environmental incidents														



HSEQ_00071_Environmental Manual

Issue: 1:0


HSEQ

Issued: February 2022

Environmental Manual

Next Review: October 2022

	Unit of measure	Jan	Feb	March	April	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Remarks (comment on trends and equipment calibration status)
No. of training or awareness sessions conducted														
<Insert any other objectives, targets, KPIs being monitored>														

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

9 MANAGEMENT REVIEW


9.1 Review

Top management of Barkly Plumbing reviews the environmental management system for its continuing suitability, adequacy and effectiveness annually. Each management review makes decisions on changes to environmental policy, the risk assessment procedure and environmental aspects, objectives and targets, environmental programs/plans, and other elements of the environmental management system.

The environmental co-ordinator compiles information for management review using the Management Review Template. The template also provides for recording the decisions of the management review, and the resulting document becomes the record of management review.


Forms

Management Review Template


	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Form 6.1 - Management Review of Environmental Management System


Date of Review	
Review Participants	
Follow-up actions from previous management reviews:	
Environmental performance of the organisation	
Extent to which objectives and targets have been met	
Results of internal audits	
Results of evaluation of compliance with legal and other requirements	

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Status of corrective and preventive action
Communication from external parties, including complaints
Changing circumstances, including developments in legal and other requirements
Other recommendations for improvement
Proposed changes to environmental management system
Environmental policy
Risk assessment procedure and environmental aspects

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Objectives, targets and programs/plans	
Other elements	
Date of next management review	
Record authorised by	
Date	

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

10 DEFINITIONS

Audit

Systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled.

Audit Criteria

Set of policies, procedures or requirements.

Audit Evidence

Records, statement of facts or other information, which are relevant to the audit criteria and verifiable.

Auditor

Person with the competence to conduct an audit.

Authority

Justification and right to exercise a power.

Carbon Footprint

Measure of the impact that human activity has on the environment in terms of the amount of greenhouse gases produced.

Certification

Verification by a conformity assessment body that a management system conforms to the requirements of a standard.

Competence

Demonstrated personal attributes and demonstrated ability to apply knowledge and skills.

Compliance

AS 3806:2006: adhering to the requirements of laws, industry and organisational standards and codes, principles of good governance and accepted community and ethical standards.


AS/NZS ISO 14001:2004: adhering to legal or other requirement.

Conformity

Fulfilment of a specification or requirement; synonymous with *conformance* which has been deprecated by ISO.

Conformity Assessment:

Checking that products, materials, services, systems, processes or people measure up to the specifications of a relevant standard or specification; conformity assessment of management systems involves conducting audits.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Conformity Assessment Body

An accredited body that performs conformity assessment.

Continual Improvement:

Recurring process of enhancing the environmental management system to achieve improvements in overall environmental performance consistent with the organisation’s environmental policy.

Control

Process for achieving an objective; also referred to as *internal control*.

Correction

Action to eliminate a detected nonconformity.

Corrective Action

Action to eliminate the *cause* of a detected nonconformity in order to avoid recurrence of the nonconformity.

Document

Information and its supporting medium.

Documentation

A set of documents, e.g. procedures and records.

Effectiveness

Extent to which planned activities are realized and planned results achieved.

Efficiency

Relationship between the result achieved and the resources used.

Element

A generic component of an environmental management system required by a clause of the international standard; could also be referred to as a *process*.

Environment


Surroundings in which an organisation operates, including air, water, land, natural resources, flora, fauna, humans and their interrelation.

Environmental Aspect

An element of an organisation’s activities, products or services that can interact with the environment.

Environmental Impact

Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation’s environmental aspects.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Environmental Management System

Part of an organisation's management system used to develop and implement its environmental policy and manage its environmental aspects; often abbreviated to *EMS*.

Environmental Noise

Is the summary of noise pollution from outside, caused by transport, industrial and recreational activities. Noise is frequently described as unwanted sound, and within this context environmental noise is generally present in some form in all areas of human activity.

Environmental Objective

Overall environmental goal, consistent with the environmental policy, that an organisation sets itself to achieve.

Environmental Performance

Measurable results of an organisation's management of its environmental aspects.

Environmental Policy

Overall intentions and direction of an organisation related to its environmental performance as formally expressed by top management.

Environmental Target

Detailed performance requirement applicable to the organisation, that arises from the environmental objectives and that needs to be set in order to achieve those objectives.

Evaluation

Systematic determination of merit, worth and significance of something using criteria, e.g. evaluation of effectiveness.

Greenhouse Gases

Gases in the atmosphere that absorb and emit radiation in the thermal infrared range; give rise to the greenhouse effect; water vapour is the most abundant greenhouse gas, followed by carbon dioxide, others are methane, nitrous oxide, various man-made fluorine compounds and ozone; increasing concentration of carbon dioxide due to human activity is believed to be the main contributor to global warming.

Hardstand


This is referred to as an area of land that is sealed by either concrete or bitumen type surfaces.

Hazardous Waste

Solvents, waste acids, alkaline and other corrosive materials, materials containing pesticides, heavy metals, explosives, highly reactive materials.

Initial Environmental Review

A review of environmental aspects of an organisation's activities, products and services as a basis for establishing an environmental management system.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Internal Audit

Audit conducted by, or on behalf of, an organisation itself for management review and other internal purposes.

Internal Audit Program

Set of one or more internal audits planned for a specific timeframe and directed towards a specific purpose.

ISO

International Organization for Standardisation, but abbreviated to ISO (from the Greek *isos* which means *equal*).

JAS-ANZ

Joint Accreditation System of Australia and New Zealand, accredits conformity assessment bodies.

Legal Requirement

Requirement of legislation, a regulation, a licence, a permit, or a contract.

Management Review

Holistic and strategic determination by top management of the suitability, adequacy and effectiveness of an environmental management system to fulfil commitments made in the environmental policy and achieve the established environmental objectives.

Manual

Document specifying the requirements of an environmental management system.

Nonconformity

Non-fulfilment of a requirement; synonymous with *non-conformance* which has been deprecated by ISO.

Non-Hazardous Waste

Used packaging material, construction material, plastic etc.

Operational Control


Process employed to manage environmental aspects, ensure compliance with legal and other requirements, achieve environmental objectives and targets and consistency with commitments in the environmental policy, or avoid or minimise environmental risks.

Other Requirement

A requirement, not necessarily legally enforced, that an organisation voluntarily subscribes to, e.g. codes of practice, industry or professional associations, support for environmental groups, AS/NZS ISO 14001:2004.

Prevention Of Pollution

Use of processes, practices, techniques, materials, products, services or energy to avoid, reduce or control (separately or in combination) the creation, emission or discharge of any type of pollutant

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

or waste, in order to reduce adverse environmental impacts; can include source reduction or elimination, process, product or service changes, efficient use of resources, material and energy substitution, reuse, recovery, recycling, reclamation and treatment.

Preventive Action

Action to eliminate the cause of a potential nonconformity in order to avoid occurrence of the nonconformity.

Procedure

Specified way to carry out an activity or a process.

Program

A planned set of tasks to achieve environmental objectives and targets, specifying responsibility, means and timeframe; also spelt *programme*; also referred to as *action plan* or *environmental improvement program*.

Process

Set of interrelated or interacting activities which transforms inputs into outputs.

Record

Document stating results achieved or providing evidence of activities performed.

Requirement

Need or expectation that is stated, generally implied or obligatory.

Responsibility

Accountability for something within one’s power, control or management.

Risk

A measure of the likelihood and consequences of an event that will impact on achievement of objectives; can be adverse or beneficial.

Risk Analysis

Systematic process to understand the nature of and to deduce the level of risk; provides the basis for risk evaluation and the treatment of risk.

Risk Assessment


Overall process of identifying risks, risk analysis, and risk evaluation.

Risk Evaluation

Process of comparing the level of risk against risk criteria, e.g. the process used in determining significant environmental aspects.

Risk Management

The culture, processes and structures that are directed towards realising potential opportunities whilst managing adverse effects.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

Role

A specific part played by someone in an organisation, usually associated with responsibility, e.g. role of management representative.

Scope

Boundaries of an environmental management system in terms of location, activities, products and services.

Significant Environmental Aspect


An environmental aspect that has or can have a *significant* environmental impact in the context of an organisation.

Standard

A set of requirements for a management system, e.g. AS/NZS ISO 14001:2004.

Waste

Any discarded material that no long has a useful purpose, and may include solids, liquids, packaging material, containers, etc whether it has an environmental impact or not.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

APPENDIX 1 – WASTE CONTROL

Objective

This procedure is to ensure that waste streams in offices are managed in a way that facilitates recycling.

Responsibilities and Authorities

The EMS Co-ordinator is responsible for ensuring the following:


- all employees and contractors, including cleaners, are aware of this procedure;
- appropriate recycling infrastructure is placed around the office and in the loading dock;
- contractors collect the waste at appropriate times;
- co-ordination of monitoring of waste management.

Procedure

- In the office, each waste stream is collected in a separate bin with clear signs and colour coding.
- Adequate bins shall be positioned around the office.
- Limited general waste bins shall be placed in the office, not at each employee's desk.
- Each employee shall have a tray, box or bin for clean paper waste at their desk.
- Cleaners shall empty all bins in the office, and place segregated waste into specially marked for contractor collection.
- Contractors shall remove waste and deal with it according to contract requirements. Significant contamination of waste for recycling shall be reported to the EMS Co-ordinator. Similarly, an occurrence of significant recyclable waste in the general waste bin shall also be reported.

Hazardous Substances

- We will dispose of hazardous substances according to the requirements of legislation and general good practice.
- The need for fire protection and the appropriate fire protection system should be determined by a risk assessment. The "fire protection system" includes fire detection, fire suppression and fire fighting equipment, which may be fixed or portable. The risk assessment should take into account the types and quantities of dangerous goods and other material and substances and how they are stored and handled. Additionally, the risk assessment should consider the types and quantities of dangerous goods and other materials and substances in the area and the types of incidents these could potentially cause. The fire protection system should be installed, tested and maintained in accordance with legislative requirements.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022


- Ensure spillage controls are in place to prevent or limit environmental contamination, and that ventilation is adequate for storage, handling and use. This may require a ventilation survey.
- Any atmospheric emissions from dangerous goods that are toxic, corrosive, flammable, explosive or asphyxiate must be eliminated or, if that is not reasonably practicable, reduced so far as is reasonably practicable.

Training and Competency Requirements

This procedure shall be included in inductions for new employees, and new contractors who are expected to work in Barkly Plumbing’s office for more than two days.

Waste Signs



	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

APPENDIX 2 – ENERGY CONSUMPTION

Objective

Barkly Plumbing is committed to promoting energy efficiency and conservation to benefit the environment, employees and the community. Beyond reducing utility bills, careful energy management helps protect the environment and extends the life of equipment while also maintaining a comfortable setting in which to work.

Barkly Plumbing requires support and participation from management and employees. To be successful, we will require our employees to change their behaviour in ways that promote energy savings, including turning off lights and computers after normal hours.

Responsibilities and Authorities


- All employees and management are responsible to follow the measures outlined in the procedure.
- Management are responsible for implementing and monitoring strategies to reduce energy consumption.
- Supervisors are responsible to ensure employees are informed and adhere to these strategies, and where changes are made, such changes are communicated to employees.
- Employees are responsible for adhering to strategies in place to assist in energy consumption.

Procedure

- Lighting is to be switched off when a room is not in use.
- When new equipment is purchased, the energy rating is to be taken into consideration, and it should have a “standby/power saver mode”.
- Computers are to be switched off prior to employees leaving for the day. The last person to leave each day is responsible to ensure all computers and lights have been turned off.
- Where possible, equipment not in use is to be switched off, rather than in standby mode.

Training and Competency Requirements

This procedure shall be included in inductions for new employees, and new contractors who are expected to work in Barkly Plumbing’s office for more than two days.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

APPENDIX 3 - ENVIRONMENTAL NOISE

Objective

Barkly Plumbing is committed to ensure that environmental noise is managed by controlling noise and vibration from vehicles, road construction, road maintenance activities, plant, power tools and activities/equipment that can cause loud noise on site.

Responsibilities and Authorities


- All employees and management are responsible to follow the measures outlined in the procedure.
- Management are responsible for implementing and monitoring strategies to reduce noise.
- Supervisors are responsible to ensure employees are informed and adhere to these strategies, and where changes are made, such changes are communicated to employees.
- Employees are responsible for adhering to strategies in place to reduce noise.

Procedure

- Enforce vehicle standards such as speed limits on site and driver education.
- Manage the road traffic noise impacts at the operation to keep environmental noise to a minimum.
- New Plant/equipment that is purchased, noise emission data to be assessed prior to purchase. Existing plant/equipment to be assessed by noise specialist and if an issue exists apply noise reduction devices if available.
- Manage responses to noise and vibration complaints.
- Conduct Noise and vibration risk assessment.
- If environmental noise complaints have been received by neighbours, consider conducting a boundary noise survey.

Engineering Noise Control Measures

- Eliminate or replace the machine or its operation by a quieter machine or operation with equal or better efficiency.
- Replace noisy machinery by installing newer equipment designed for operating at lower noise levels. Machinery sources and transmissions can be designed to give quiet speed regulation. Vibration sources can be isolated and treated within the machine. Cover panels and inspection hatches on machines should be stiff and well damped. Cooling fins can be designed to reduce the need for forced airflow and hence fan noise.
- Correct the specific noise source by minor design changes. For example, avoid metal-to-metal contact by the use of plastic or rubber gaskets and buffers, or replace noisy drives with quieter types or use improved gears.
- A high standard of equipment maintenance should be provided. Badly worn bearings and gears, poor lubrication, loose parts, slapping belts, unbalanced rotating parts and air leaks

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

all create noise which can be reduced by good maintenance. Plant and equipment resulting in excessive noise levels should be repaired immediately.

- Correct the specific machine elements creating noise by a local source approach, rather than by consideration of the entire machine as a noise source. For example, the addition of noise barriers, noise enclosures, vibration isolation mountings, lagging to dampen vibrating surfaces, mufflers or silencers for air and gas flows or reducing air velocity of free jets. These may be considered as a solution for the individual noise producing elements of the total operation.
- Separate the noisy elements that need not be an integral part of the basic machine. For example, move pumps, fans, compressors that service the basic machine.
- Isolate the vibrating machine parts to reduce noise from vibrating panels and guards.
- In addition to engineering changes to machinery and parts, processes can be modified to reduce noise. Specific means of modification include the use of processes that are inherently quieter than alternatives, for example, chemical demolition rather than jack hammering.


Engineering Treatment of the Noise Transmission Path

If it is not possible to change or modify the noise generating equipment or processes by engineering treatment of the source, engineering treatment of the noise transmission path between the source and the listeners (employees, public, and customers) should be investigated.

Engineering of the noise transmission path includes isolating the noise emitting object(s) in an enclosure, or placing them in a room or building away from the largest number of listeners, and acoustically treating the area to reduce noise to the lowest practicable levels.

The principles to be observed in carrying out engineering treatment of the noise transmission path are as follows:


- Distance is often the cheapest solution, but it may not be effective in reverberant conditions.
- Erect a noise barrier between the noise source and the listener, in some instances a partial barrier can be used to advantage. In cases where either area has a false ceiling, care should be taken to ensure that the dividing wall extends to the true ceiling and that all air gaps in the wall are closed and airtight.
- Once the acoustical barrier is erected, further treatment, such as the addition of absorbing material on surfaces facing the noise source may be necessary.
- Materials that are good noise barriers, for example, lead, steel, brick, and concrete are poor absorbers of sound. The denser and heavier the material, the better the noise barrier.
- Good sound absorbers, for example, certain polyurethane foams, fibreglass, rock wool and thick pile carpet, are very poor barriers to the transmission of sound.
- Walls and enclosures must be designed to minimise resonances, which will transmit acoustical energy at the resonant frequency to the protected area. Placing reinforcement or bracing in strategic areas can achieve this during construction or modification.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

- Reduce as far as possible, the reverberation of the room where the noise is generated by the introduction of acoustically absorbent material(s). The presence of reverberation in a room shows the need for absorbing material. Excessive reverberation produces unpleasant and noisy conditions that can interfere with speech communication.

Training and Competencies

This procedure shall be included in inductions for new employees, and new contractors who are expected to work at Barkly Plumbing for more than two days.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

APPENDIX 4 - WATER POLLUTION

Objectives


- To reduce the impact Barkly Plumbing's business activities have on water pollution.
- The target for all Projects is, as a minimum, to comply with the relevant regulations for specific water bodies. Through compliance with regulations, environment protection will be achieved.
- Clients may also impose discharge limits for various indicator contaminants.
- To keep all waste and products associated with the works undertaken out of the drains and waterways.

Responsibilities and Authorities

- All employees and management are responsible to follow the measures outlined in the procedure.
- Management are responsible for implementing and monitoring strategies to reduce water pollution.
- Supervisors are responsible to ensure employees are informed and adhere to these strategies, and where changes are made, such changes are communicated to employees.
- Employees are responsible for adhering to strategies in place to reduce water pollution.

Procedure

- Assess the existing features of the land including the contour, existing vegetation, stormwater drains and drainage pattern, proximity to waterways, soil type.
- Program works, where possible, to minimise the impact on the environment.
- Define where risk activities are going to take place.
- Where relevant, install soil erosion and sediment control measures prior to the commencement of works (if possible). Site activities and changes over time will/may necessitate re-assessment of control measures during works.
- Assess the possibility of installing cut off drains to divert clean storm water around the site.
- Program work to limit the extent and duration of exposed earth. This may reduce the number of erosion and sediment control structures required across the site.
- Retain vegetation where possible as it minimises exposed surfaces and assists in treating runoff.
- Stockpiles or areas that will be exposed for longer than 3 months will be hydro seeded or mulched to reduce erosion potential. Silt fencing may also be required up gradient and / or down gradient of stockpiles.
- Stockpiles will not be located near drainage lines or waterways.
- Access on site will be limited to designated areas.
- Minimise soil erosion by compacting and trimming all fill surfaces prior to any chance of rain. Roughening the surface (e.g. using a machine on tracks) on steep batters will reduce flow velocities thus limiting erosion. At the end of each day would be practical. Where


	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

possible, progressive treatment should be conducted on site rather than concentrating control devices in one location.

- Protect areas of concentrated water flow by leaving / using existing topsoil with vegetation or installing protective matting or fabric.
- Run off from disturbed areas must be filtered prior to discharge to stormwater or waterways. Sediment control devices should be located up gradient of sensitive areas such as creeks, steep embankments, and storm water inlets. Filtration may be in the form of silt fencing, sediment traps, gravel bags, settling ponds etc. All sediment control structures need to be adequate in size to cope with the amount of water anticipated and regularly maintained. Note that off line sedimentation basins are preferred to in stream sedimentation basins.
- Water from sediment ponds can be used to irrigate vegetated areas remote from waterways or alternatively be used for dust control.
- Servicing of machinery/equipment should be undertaken in a controlled manner. An area should be designated for such activities which is located away from storm water, waterways and sensitive vegetation. Sealed containers should be available for waste materials. Waste should be disposed of off-site in accordance with the Waste Control Procedure.
- Ensure wash down and fuel storage areas are located away from storm water drainage lines and waterways. Fuel and chemicals should be stored in accordance with relevant standards/guidelines (Refer to Storage, Handling & Decanting of Hazardous Substances).
- Where utilised, bitumen, concrete and concrete slurry needs to be controlled to prevent it from entering the storm water system. Storm water drains need to be protected and spill kits or suitable materials should be available on site to respond to a spill immediately.
- Water being pumped or emptied from dams needs to be filtered / treated prior to discharge to ensure water quality limits are being met.
- A detailed check of the site history and the likelihood of soil contamination should be completed such that the stockpiling of material with leachable contaminant levels is prevented (adjacent waterways).
- Water which appears contaminated (may have odour or discolouration) should not be pumped until it has been tested and found to meet EPA criteria.
- Vegetation to remain on site will be handled in accordance with the Flora and Fauna Procedure.
- Alternative methods of construction may need to be assessed when working in, adjacent to or over waterways, to minimise the impact on the environment.
- Dirt/mud should not be washed from roads unless adequate control measures are in place to prevent sediment from entering the storm water system. Washing roads with no controls in place is poor practice and likely to result in pollution.

Training and Competencies

This procedure shall be included in inductions for new employees, and new contractors who are expected to work in Barkly Plumbing's office for more than two days.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

APPENDIX 5 - FLORA AND FAUNA

Objective


To reduce the impact that Barkly Plumbing's business operations have on the flora and fauna within, and adjacent to, the boundary of the location of works.

Responsibilities and Authorities

- All employees and management are responsible to follow the measures outlined in the procedure.
- Management are responsible for implementing and monitoring strategies to reduce impact to flora and fauna.
- Supervisors are responsible to ensure employees are informed and adhere to these strategies, and where changes are made, such changes are communicated to employees.
- Employees are responsible for adhering to strategies in place to reduce impact.

Procedure

- Assess work area for examples of significant vegetation or evidence of native fauna.
 - Age of stands i.e. size of trees.
 - Faunal habitat possibilities i.e. Holes in trunks.
 - Historical European (non-native) trees i.e. elms.
- Identify any vegetation or fauna you may think is important that has not been identified in the specification i.e. old trees and habitat trees.
- If unsure seek advice from experts e.g. Department of Natural Resources and Environment (NRE - services should be free) or arborist.
- Comply with the Project Specifications.
- Define work and exclusion areas e.g. fencing.
- Assess the design impact on vegetation i.e. It may be possible to alter the design slightly to save vegetation.
- If native fauna is present or thought to be, seek expert advice.
- Ensure all machinery is thoroughly washed down prior to commencing works on site to prevent spread of foreign seed and cinnamon fungi.
- Vehicles exiting the site should be clean.
- Trucks constantly entering and exiting site should be kept to the same route where possible and turning points should be within the site works, or planned where no damage will be done to the natural vegetation.
- In high-risk areas, client may inspect decontaminated machinery and require testing of material to be imported to site.
- Strip topsoil, if any, for turnaround points, site hut locations and parking areas prior to using these areas. Stockpile this soil for site rehabilitation/re-use.

	HSEQ_00071_Environmental Manual	Issue: 1:0
	HSEQ	Issued: February 2022
	Environmental Manual	Next Review: October 2022

- Clearly mark drip line around significant trees to prevent damage to tree root zone. The actual tree should also be marked using coloured flagging. No equipment or stockpile storage should occur within drip lines.
- When works are complete, lightly rip striped areas, and replace topsoil and dress to allow native seeds to revegetate the area disturbed.
- Clearly explain and identify all requirements to employees at site induction.
- Pruning should be undertaken by an arborist.
- Food scraps should be disposed in a sealed bin.
- Injured fauna should not be handled unless safe to do so. Welfare of animals must be given top priority. All native animals including snakes are protected.
- If revegetation is a requirement of the work, ensure plants for revegetation are from local area. Revegetation should be progressive.
- If trees are not suitable or cannot be used for fauna habitat then they should be mulched on site as opposed to cut and burnt, reducing emissions of carbon dioxide to the atmosphere.
- If night works require flood lights then a filter may be necessary to prevent disturbance to nocturnal animals.
- If temporary stabilisation is required, non-native sterile grass can be used while native grasses and vegetation re-establish in the area.

Training and Competency

This procedure shall be included in inductions for new employees, and new contractors who are expected to work in Barkly Plumbing's office for more than two days.