

**GUIDELINES ON WASTE DISCHARGE LICENSING
UNDER THE *WATER ACT***

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1	Introduction.....	1
	PART A: Guidelines for Waste Discharge Licences	2
2	What is a waste discharge licence?	2
3	Do I need a waste discharge licence?	2
4	Legislative requirements and the role of the NT EPA	4
5	Principles of waste discharge licensing	4
	5.1 National Water Quality Management Strategy.....	5
	5.2 Environmental risk.....	5
	5.3 Natural justice (procedural fairness)	5
	5.4 Prevention and continuous improvement.....	5
	5.5 Recognition of legacy	6
6	What is in a waste discharge licence?	6
	6.1 Licence and licensee details.....	7
	6.2 Waste discharge licence conditions.....	7
	6.2.1 Administrative.....	8
	6.2.2 Operational	8
	6.2.3 Discharges and Emissions	8
	6.2.4 Monitoring	8
	6.2.5 Recording and Reporting.....	9
	6.2.6 Performance Improvement.....	9
	6.2.7 Appendices	9
7	Duration of a waste discharge licence	9
8	Public register of waste discharge licences	9
9	How do I obtain a waste discharge licence?.....	9
10	Assessing a waste discharge licence application.....	10
11	Renewing a waste discharge licence	11
12	Definitions	12
13	Additional reading	14
14	PART B: Completing a waste discharge licence application.....	15
15	Applicant details	15
16	Location of the premises.....	15
17	Emergency contact.....	16
18	Permission to use land.....	16
19	Activity.....	16
20	Discharge points.....	16

21	Mixing zone	17
22	Factors to be considered under section 90 of the Act	17
	22.1 (a) the availability of water in the area in question	17
	22.2 (ab) any water allocation plan applying to the area in question.....	17
	22.3 (b) the existing and likely future demand for water for domestic purposes in the area in question	17
	22.4 (c) any adverse effects likely to be created as a result of activities under the permit, licence or consent on the supply of water to which any person other than the applicant is entitled under this Act.....	17
	22.5 (d) the quantity or quality of water to which the applicant is or may be entitled from other sources.....	17
	22.6 (e) the designated beneficial uses of the water and the quality criteria pertaining to the beneficial uses	18
	22.7 (f) the provisions of any agreement made by or on behalf of the Territory with a State of the Commonwealth concerning the sharing of water.....	18
	22.8 (g) existing or proposed facilities on, or in the area of, the land in question for the retention, recovery or release of drainage water, whether surface or sub-surface drainage water	18
	22.9 (h) the adverse effects, if any, likely to be created by such drainage water resulting from activities under the licence on the quality of any other water or on the use or potential use of any other land.....	18
	22.10 (j) the provisions under the Planning Act relating to the development or use of land in the area in question	18
	22.11 (k) other factors the Controller considers should be taken into account or that the Controller is required to take into account under any other law in force in the Territory	19
23	Supporting documentation	19
	23.1 Environmental assessment	19
	23.2 Mining and petroleum sites.....	19
	23.3 Waste discharge licence justification	19
	23.4 Continuous improvement plan.....	19
	23.5 Discharge specifications.....	19
	23.6 Monitoring plan.....	20
	23.7 Monitoring reports	20
	23.8 Conceptual site model.....	20
	23.9 Environmental aspects and impacts register	21
	23.10 Emergency response plan.....	21
	23.11 Communication plan.....	22
	23.12 Declaration.....	22

1 Introduction

Industrial and commercial activities can result in the discharge of pollutants to water which can accumulate in sediments, groundwater and surface waters. The presence of pollutants may present a risk to the environment and public health. Pollutants can reduce ecosystem function, make waterways unsafe for recreational use, and contaminate domestic and livestock drinking water supplies.

In the Northern Territory (NT) a waste discharge licence (WDL) may be issued as a legislative instrument to regulate the quality and quantity of pollutants discharged to water.

This document is presented in two parts and provides information to industry and the community about WDLs including information on:

- Part A
 - What is a WDL?
 - Who needs a WDL?
 - Legislative requirements and the role of the Northern Territory Environment Protection Authority (NT EPA).
 - What is in a WDL?
 - How to obtain a WDL?
 - Assessing a WDL.
 - Renewing a WDL.
- Part B
 - How to complete a WDL application.

This document has been prepared in good faith, exercising all due care and attention, but no representation or warranty, express or implied, is made as to the relevance, completeness or fitness for purpose of this document in respect of any particular user's circumstances. Users of this document should satisfy themselves concerning its application to their situation and, where necessary, seek expert advice.

PART A: Guidelines for Waste Discharge Licences

2 What is a waste discharge licence?

A WDL is a permit under the *Water Act* (the Act) that allows waste to be discharged or come in contact with water. A WDL contains a number of conditions to regulate the quality and quantity of waste and/or pollutants discharged to water to protect the ecosystem function, use of land, public water supply, rural water supply, activities such as fishing, recreation and tourism, and future economic development.

Collectively, WDLs provide a transparent and consistent basis for the regulation of potentially polluting activities, ensuring that industry operates in a manner consistent with the triple bottom line principles of social, economic and environmental responsibility.

It is important to note that:

- The Act does not apply to waste and pollution that occurs in the course of carrying out a mining or petroleum activity where the waste or pollution is confined within the boundary of a mining or petroleum site (Section 7 of the Act). This means that a WDL can only be applied where evidence demonstrates that pollutants leave the boundary of a mine or petroleum site or lease. The management of waste and pollutants within the boundaries of a mine or petroleum site (or mine lease) is regulated under the *Mine Management Act* or *Petroleum Act*.
- There is not a right to obtain a WDL, and a WDL will only be granted where it is demonstrated that all reasonable and practicable measures have been taken to minimise the discharge of pollutants to water. Environmental considerations and natural justice principles (procedural fairness) are applied in reaching decisions regarding the granting of a waste discharge licence.
- WDLs are not granted for discharges to stormwater. No waste or pollutants should be discharged or disposed of into stormwater or stormwater drains.

3 Do I need a waste discharge licence?

All activities that discharge to water should be assessed to determine if a WDL is required. A WDL is required if, in the course of an activity, waste comes into contact with water or where there is a risk of polluting water or a risk of a waste coming into contact with water.

Water for the purposes of this guideline and in accordance with Section 16 of the Act means:

- a) water flowing or contained in a waterway;
- b) ground water; or
- c) tidal water.

Guidelines on waste discharge licensing under the *Water Act*

Ground water¹ means water occurring or obtained from below the surface of the ground and includes water occurring in or obtained from a bore or aquifer.

Tidal water² means water within the geographical area constituting the Territory that is directly affected by the tide.

Waterway³ means:

- a) a river, creek, stream or watercourse;
- b) a natural channel in which water flows, whether or not the flow is continuous;
- c) a channel formed wholly or partly by the alteration or relocation of a waterway described in paragraph (a) or (b);
- d) a lake, lagoon, swamp or marsh, whether formed by geomorphic processes or modified by works:
 - i. in which water collects, whether or not the collection is continuous; and
 - ii. into, through or out of which a current (which forms the flow or part of the flow of a river, creek, stream or watercourse) passes, whether or not that passage is continuous;
- e) land on which, as a result of works constructed on a waterway described in paragraph (a), (b) or (c), water collects, whether or not the collection is continuous;
- f) land which is intermittently covered by water from a waterway described in paragraph (a), (b), (c), (d) or (e), but does not include any artificial channel or work which diverts water away from such a waterway; or
- g) if any land described in paragraph (f) forms part of a slope rising from the waterway to a definite lip, the land up to that lip.

As examples, discharges generated by the following activities have been granted WDLs:

- wastewater treatment plants or sewage plants;
- mine sites;
- dredge material (spoil) disposal; and
- discharges from aquaculture facilities.

A WDL may also be required for activities that involve discharging to land where the discharge may seep into the land and cause pollution of an aquifer.

¹ For complete definition see section 4 of the *Water Act*

² For complete definition see section 4 of the *Water Act*

³ For complete definition see section 4 of the *Water Act*

4 Legislative requirements and the role of the NT EPA

WDLs are administered under the *Water Act*. In accordance with the Act the Minister has appointed a Controller of Water Resources.

On behalf of the Controller of Water Resources the NT EPA assess WDL applications and supporting documentation, prepare draft licences and provide advice to the Controller of Water Resources or his or her delegate on granting a WDL.

A WDL is a legislative instrument issued under Section 74 of the Act. The Act prohibits a person to allow waste to come into contact with water or to pollute water unless it is authorised under the Act or any other law in force in the Territory.

During the processing of WDL applications the NT EPA may consult with Northern Territory Government (NTG) Agencies that have responsibilities in relation to a WDL application including but not limited to:

- Department of Health – on public health.
- Department of Primary Industries and Fisheries – on aquatic health and monitoring plans.
- Department of Mines and Energy – on mine management practices and monitoring plans.
- Department of Land Resource Management – on land and water resources, aquatic health, and monitoring plans.

The NT EPA administers WDLs that have been granted by the Controller of Water Resources or his or her delegate by monitoring compliance with WDL conditions. The NT EPA is responsible for receiving all submissions and reports required as a condition of a WDL and advising the Controller of Water Resources and his or her delegate of any regulatory action that may be required.

Decisions regarding a WDL are made by the Controller of Water Resources or his or her delegate.

5 Principles of waste discharge licensing

The NT EPA applies the following principles when processing or administering WDLs:

- The objectives of the National Water Quality Management Strategy and the ecologically sustainable development of Australia's water resources;
- The environmental risks associated with the waste (or discharge);
- Prevention and continuous improvement;
- Natural justice (procedural fairness); and
- Recognition of legacy.

By adopting these principles in processing WDL applications the NT EPA places an emphasis on identifying existing problems, minimising environmental impacts and reducing environmental risk. The NT EPA encourages applicants to take responsibility for their actions and to continually improve performance. The NT EPA understands that in applying these principles actual improvements may take successive licensing periods and be subject to a range of social and economic factors.

5.1 National Water Quality Management Strategy

The National Water Quality Management Strategy (NWQMS) is a joint national approach to improving water quality in Australian and New Zealand waterways. It was originally endorsed by two Ministerial Councils - the former Agriculture and Resources Management Council of Australia and New Zealand (ARMCANZ) and the former Australian and New Zealand Environment and Conservation Council (ANZECC).

Since 1992 the NWQMS has been developed by the Australian and New Zealand Governments in cooperation with State and Territory governments. Ongoing development is currently overseen by the Standing Council on Environment and Water (SCEW) and the National Health and Medical Research Council (NHMRC).

The NWQMS aims to protect the nation's water resources, by improving water quality while supporting the businesses, industry, environment and communities that depend on water for their continued development. The NWQMS provides the framework for establishing a series of Beneficial Uses and Water Quality Objectives (WQOs) under the Act in the Northern Territory. Beneficial Uses and WQOs establish the environmental values of a waterway and the water quality criteria for protecting those environmental values. They are recognised as Environment Protection Objectives under the *Waste Management and Pollution Control Act*.

Where Beneficial Uses and WQOs for a waterway are not defined, the NT EPA assesses potential impact using water quality trigger values defined in the NWQMS, *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*.

5.2 Environmental risk

The NT EPA uses a risk based approach in its assessment of a WDL application. This includes consideration of the nature of the waste and the proposed discharge, sensitivity of the receiving environment and the risk to the environment posed by a discharge. The NT EPAs priority is to ensure that a WDL achieves an appropriate environmental outcome taking into account the circumstances of each application.

The information provided in a WDL application assists the NT EPA in assessing the risks associated with of a proposed discharge.

5.3 Natural justice (procedural fairness)

To meet the requirements of natural justice the NT EPA and the Controller of Water Resources or his or her delegate consider each application on its merits and make decisions without bias in accordance with the requirements of Section 90 of the Act. The NT EPA, the Controller of Water Resources and his or her delegate take appropriate measures to provide applicants and licensees the opportunity to respond to adverse material and avoid conflicts of interest.

5.4 Prevention and continuous improvement

The NT EPA will drive a preventative approach to minimise the risk to the environment using the waste management hierarchy as a basis for assessing WDL applications. The waste management hierarchy is a nationally and internationally accepted guide for prioritising waste management practices with the objective of achieving optimal environmental outcomes. It sets out the preferred order of waste management practices from least preferred, disposal, to the most preferred, avoidance as shown in Figure 1.

A WDL may be considered where all reasonable efforts have been taken to avoid, reduce, recycle, recover or treat a pollutant or pollutants and a discharge remains.



Figure 1 Waste Management Hierarchy

Additionally the NT EPA expects that new systems and any changes, upgrades or extensions to existing systems are fit for purpose and incorporate elements to prevent or minimise pollutant discharges. The NT EPA expects that equipment associated with a waste discharge is maintained and operated appropriately so as to maintain and/or improve the quality of waste discharge.

5.5 Recognition of legacy

The NT EPA recognises a legacy of pollutant discharges to water from mines and sewage treatment plants and that there is often limited data on the environmental impacts associated with such discharges.

Acknowledging these issues, where they exist, the NT EPA will incorporate licence conditions to:

- investigate the nature and extent of the legacy issues by developing monitoring plans that incorporate multiple lines of evidence including biological, physical, chemical and ecotoxicological analysis;
- assess risk using recognised methodology;
- identify management options; and
- develop remedial action plans.

6 What is in a waste discharge licence?

A WDL has four distinct parts:

1. Licence and Licensee details.
2. Information about this Licence.
3. Waste Discharge Licence Conditions.
4. Appendices to the Waste Discharge Licence Conditions.

A discussion on each section is provided below and examples of WDLs are available from the NT EPA website at:

<http://www.ntepa.nt.gov.au/waste-pollution/approvals-licences>.

6.1 Licence and licensee details

This part lists details including:

Licence Number – is a unique number specific to the licensee and the licensed activity. The Licence Number includes a version number which changes when the licensee details are updated or the licence is amended or reissued following an application for a new WDL due to a pending expiry date.

Licensee Details – includes the legal entity name, business, and contact details of the licensee. This legal entity is the person who is granted the WDL and who will be accountable for meeting the conditions of the licence. The contact details are the primary contact details that will be used by the NT EPA for all formal correspondence relating to the administration of the WDL.

Location of Operations to which this Licence applies – is the name and address of the activity which generates the waste being discharged to water subject to the conditions of the licence.

24 hour Emergency Contact – this contact is required to be available at all times and have sufficient knowledge of the activity which generates the waste and the authorised discharge to address any emergency that may arise. In the event of an incident this person must be contactable 24 hours a day and be capable of responding to the incident. All WDLs require that any changes of 24 hour Emergency Contact details are provided to the NT EPA within 24 hours of the change.

Licensed activity – the licensed activity summarises the actions that are authorised subject to the licence conditions. This is generally in the format of a statement, for example: *The discharge of waste from ABC Mine Lease XXYY to Alphabet Creek.*

Information about this Licence - This section includes information that relates to the administration of a WDL, the licensee's responsibilities in relation to the WDL and the requirements of the legislation including the *Water Act* and the *Waste Management and Pollution Control Act*.

This section provides a list of supporting documents that have been assessed in association with the WDL application. It identifies sensitivities of surrounding land uses and the environment that represent an interest to the Northern Territory Government and the community or have been legislated as Environment Protection Objectives, i.e. beneficial use declarations and/or WQO.

6.2 Waste discharge licence conditions

Licence conditions are initially generated from a series of standard licence conditions that have been created to apply across a range of activities. Licence conditions are in six main groups:

1. Administrative.
2. Operational.
3. Discharges and Emissions.
4. Monitoring.
5. Recording and Reporting.
6. Performance Improvement.

6.2.1 Administrative

Administrative conditions relate to maintaining current contact details and informing the NT EPA of any proposed changes in operations or cessation of the licensed activity. They require the licensee to make available copies of the WDL to interested parties and provide direction on the method for providing information to the NT EPA.

6.2.2 Operational

Operational conditions relate to how the licensee conducts themselves in relation to the licensed activity. These include conditions limiting the pollution to that authorised by the licence while requiring the licensee do all things reasonable and practicable to ensure the activity does not adversely affect any beneficial use declarations that may be in effect for the duration of the licence. Operational conditions generally require the licensee to maintain and implement a communication plan, a complaints log, and an emergency response plan.

6.2.3 Discharges and Emissions

Discharge and Emission conditions include the specific authorisation to discharge waste to water. The authorisation will include the coordinates of the authorised discharge point(s) and where applicable the boundary of the authorised mixing zone.

Mixing zones will be considered and recommended by the NT EPA on a case by case basis. For further information on mixing zones refer to the NT EPA *Guidelines on Mixing Zones* available from the NT EPA website at: <http://www.ntepa.nt.gov.au/waste-pollution/guidelines/guidelines>.

Discharge and Emission conditions clearly state what is being authorised and what criteria must be met or trigger values must be applied when discharging waste. Discharge and Emission conditions may include both qualitative criteria (descriptive criteria) and quantitative criteria (actual water quality numbers, dilution parameters, flow rates or other numbers) that must be applied. This section may include a condition in relation to beneficial use declarations and/or WQOs.

Discharges will generally only be permitted into a water body when water flow is evident. Mechanisms for measuring the flow of the receiving water body and the volume of discharge should be in place to support an application for a WDL.

6.2.4 Monitoring

This section of a WDL specifies what monitoring must be conducted to assess the impacts and/or potential impacts of the authorised discharge. Monitoring conditions require that sampling point(s) are identified and accessible and specify the information that must be recorded and retained for each sample collected. Monitoring conditions for a WDL will always include the requirement for a surface water monitoring plan that will include monitoring of the discharge and in-stream monitoring of the receiving water body to measure the extent of the impact or potential impact of the discharge compared with appropriate reference or un-impacted sites. Monitoring conditions may include requirements to monitor groundwater, biological impacts and/or sediment to provide multiple lines of evidence in the assessment of impact or potential impact.

Monitoring plans are required to be submitted with a WDL application and the NT EPA must approve these plans and/or any revisions to the plans before they are implemented. Revisions to monitoring plans may be proposed for a number of reasons, including proposals to reduce monitoring requirements where data verifies the risk to the environment is low and there is no detrimental environmental impact. Monitoring plans are generally included as Appendices to a WDL either in the full form as provided in the application or in a tabulated form.

Monitoring conditions generally require a current copy of the monitoring plan be provided to the NT EPA. Where there is any condition in a WDL that requires a current plan to be provided to the NT EPA the NT EPA will publish this plan with the WDL on the NT EPA website.

6.2.5 Recording and Reporting

Recording and reporting conditions define the records the licensee must maintain and when the licensee is to report to the NT EPA. For all WDLs the licensee is required to keep records in a legible format and keep records of all non-compliances. Licensees must report non-compliances with the conditions of the WDL, and any potential or actual environmental harm or pollution within 24 hours of first becoming aware of the incident.

All licensees are to submit an Annual Review and Compliance Report and provide monitoring reports including a trend analysis and interpretation of all monitoring data required as a condition of the WDL. As a minimum licensees will generally be required to submit a monitoring report on or before the expiry date of the WDL. More frequent monitoring reports may be required depending of the nature of the discharge, the environmental risks associated with the licensed activity or the compliance history of a licensee. Licensees may be required to provide monitoring data.

6.2.6 Performance Improvement

Performance improvement conditions are generally unique to a particular WDL. These are designed with the objective of improving information about the authorised discharge or improving the quality of the authorised discharge and reducing pollution.

6.2.7 Appendices

As discussed in section 5.2.4 monitoring plans are included in the Appendices along with maps showing the location of the discharge and monitoring points and any other relevant information as may be referenced in a condition of the WDL.

7 Duration of a waste discharge licence

A WDL is generally granted for a period not exceeding two years.

Under special circumstances, and with the approval of the Minister, the Controller of Water Resources, or his or her delegate, may grant a WDL for a longer period.

A person who holds a WDL may renew the licence by lodging an application in accordance with the approved form.

8 Public register of waste discharge licences

WDLs are maintained on a register that is available to the public. In the spirit of openness the Controller of Water Resources and the NT EPA make this register freely available from the NT EPA website at

<http://www.ntepa.nt.gov.au/waste-pollution/approvals-licences/wd-licences>.

Any plans for environmental management, including monitoring plans, required to be provided to the NT EPA as a condition of a WDL are available from the NT EPA website.

9 How do I obtain a waste discharge licence?

A person must apply for a WDL using the approved application form. Application forms can be obtained by contacting the NT EPA, or downloading an application form from the NT EPA website at:

<http://www.ntepa.nt.gov.au/waste-pollution>.

It is advisable to meet with officers of the NT EPA prior to submission of your WDL application to ensure licence application requirements are fully understood.

The NT EPA recommends that any person conducting an activity that includes a discharge to water apply for a WDL noting that it is an offence under the Act to allow waste to come into contact with water or to pollute water without authorisation.

The *Water Regulations* (“the Regulations”) require that application forms be submitted a minimum of 30 days prior to requiring the WDL.

The NT EPA advises that the process of assessing a WDL may take anywhere from 30 days to 90 days depending on the complexity of the proposal and the potential environmental risks. The NT EPA strongly advises submitting WDL applications a minimum of 90 days prior to the first planned discharge or 90 days prior to the expiry date of an existing WDL. The timeframe for assessment does not begin until all required information is submitted.

10 Assessing a waste discharge licence application

Assessment of a WDL involves a review of the information provided in a WDL application and an independent consideration of environmental risks. It is important that all the relevant supporting documentation is provided. Supporting documentation provides detailed information relating to the activity and a characterisation of the discharge and the receiving water. Insufficient or incomplete information will hamper the assessment process and delay decisions with respect to granting a WDL.

Where required the NT EPA may request further information to support a WDL application.

The NT EPA employs a risk based approach in its assessment of a WDL application. This includes consideration of the nature of the discharge, sensitivity of the receiving environment and the risk to the environment posed by a discharge. The NT EPA's priority is to ensure that WDLs achieve an appropriate environmental outcome taking into account the circumstances of each application.

The Act requires the Controller of Water Resources, or his or her delegate, to take into account a number of relevant factors when granting, amending or modifying a licence. The factors listed under section 90 of the Act are:

- (a) the availability of water in the area in question;
- (ab) any water allocation plan applying to the area in question;
- (b) the existing and likely future demand for water for domestic purposes in the area in question;
- (c) any adverse effects likely to be created as a result of activities under the permit, licence or consent on the supply of water to which any person other than the applicant is entitled under this Act;
- (d) the quantity or quality of water to which the applicant is or may be entitled from other sources;
- (e) the designated beneficial uses of the water and the quality criteria pertaining to the beneficial uses;
- (f) the provisions of any agreement made by or on behalf of the Territory with a State of the Commonwealth concerning the sharing of water;

Guidelines on waste discharge licensing under the *Water Act*

- (g) existing or proposed facilities on, or in the area of, the land in question for the retention, recovery or release of drainage water, whether surface or sub-surface drainage water;
- (h) the adverse effects, if any, likely to be created by such drainage water resulting from activities under the licence on the quality of any other water or on the use or potential use of any other land;
- (j) the provisions under the *Planning Act* relating to the development or use of land in the area in question;
- (k) other factors the Controller considers should be taken into account or that the Controller is required to take into account under any other law in force in the Territory.

Any person applying for a WDL will be required to address each of these factors in relation to any proposed discharge in their WDL application. The factors are further explained in Part B, section **Error! Reference source not found.**

11 Renewing a waste discharge licence

A WDL may be considered for renewal under Section 15 of the Regulations. Renewals are generally applicable when a WDL:

- has previously been granted following an assessment as outlined in this guideline under Section 8;
- has been complied with; and
- does not require a change to:
 - the authorised discharge point(s);
 - the nature of the waste discharge (e.g. volume, rate, quality, time, source);
 - trigger values; or
 - the monitoring plan(s).

To apply to renew a WDL an application must be lodged no later than one month before the date on which the licence is due to expire.

The application form for renewing WDL is available on the NT EPA website at <http://www.ntepa.nt.gov.au/waste-pollution>. Applications should be lodged electronically by emailing the NT EPA at pollution@nt.gov.au.

12 Definitions

“Act”	Means the <i>Water Act</i>
“ANZECC 2000”	National Water Quality Management Strategy – Australian and New Zealand Guidelines for Fresh and Marine Water Quality 2000 developed by the Australian and New Zealand Environment and Conservation Council and the Agriculture and Resource Management Council of Australian and New Zealand
“Beneficial Use”	<p>Beneficial use has the same meaning as in the Act.</p> <p>Beneficial Use Declaration is a legislated process that aims to reduce the effects of water pollution. It is a consultative process whereby the community decides the uses that should be protected for a particular water body by choosing one or more beneficial uses of water which are described in section 4 (3) of the <i>Water Act</i> and listed below:</p> <ul style="list-style-type: none">(a) agriculture – to provide irrigation water for primary production including related research;(b) aquaculture – to provide water for commercial production of aquatic animals including related research;(c) public water supply – to provide source water for drinking purposes delivered through community water supply systems;(d) environment – to provide water to maintain the health of aquatic ecosystems;(e) cultural – to provide water to meet aesthetic, recreational and cultural needs;(f) industry – to provide water for industry, including secondary industry and a mining or petroleum activity, and for other industry uses not referred to elsewhere in this subsection;(g) rural stock and domestic – to provide water for the purposes permitted under sections 10, 11 and 14 of the <i>Water Act</i>.
“Conceptual site model”	A conceptual illustration of the characteristics of the environment into which discharges will be directed. May include a graphical or schematic diagram, flowchart or detailed process model.
“Ecosystem function”	The physical, chemical and biological processes or attributes that contribute to the self-maintenance of the ecosystem. Assessing ecosystem function requires understanding what the ecosystem does and how this is maintained.
“Ecotoxicological	Is a multidisciplinary field of study that assesses the

Guidelines on waste discharge licensing under the *Water Act*

assessments”	environmental effects of natural and synthetic chemicals released into a biosphere. An ecotoxicological assessment must quantify the effects of toxic stressors upon natural populations, communities, or ecosystems.
“Impact zone/ mixing zone”	Means an area or volume of receiving water contiguous to a waste discharge where the receiving waters within a specified zone may not meet all applicable water quality criteria. The impact zone is where the waste and the receiving waters mix. Mixing zones are unique to a WDL and are developed on a site specific basis with consideration of the pollutants in the discharge and the receiving environment.
“Legacy issue”	Historic events that may have caused pollution through inappropriate management of discharges, faulty equipment or limited emergency response or clean up of previous environmental pollution.
“Pollution”	Is a derivative of pollute and has the same meaning as in the Act.
“Site capability assessment”	Determines the capability of the site to contain potential toxic discharges and its ability to recover following a pollution event.
“Trigger value”	Means the value that prompts an action. ANZECC 2000 provides water quality values that if exceeded trigger an action to ensure protection of environmental uses and values.
“Waste Management Hierarchy”	A systematic approach to assessing options for waste management where avoidance of the creation of waste is the most preferred option and disposal of the waste the least preferred.



“Waterway”	Has the same meaning as in the Act.
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13 Additional reading

Northern Territory of Australia *Water Act*

<http://notes.nt.gov.au/dcm/legislat/legislat.nsf/d989974724db65b1482561cf0017cbd2/623a5c0ee1491ecd69257941007cecef?OpenDocument>

Northern Territory of Australia Water Regulations

<http://notes.nt.gov.au/dcm/legislat/legislat.nsf/linkreference/water%20regulations>

Freshwater related environmental management principles and guidelines (ANZECC 2000)

<http://www.environment.gov.au/water/publications/environmental/pubs/principles.pdf>

Australian Government, Department of Resources, Energy and Tourism, Leading Practice Sustainable Development Program handbooks.

http://www.ret.gov.au/resources/resources_programs/lpsdpmining/handbooks/handbooks-English/Pages/English.aspx

Ecological Sustainable Development

<http://www.environment.gov.au/about/esd/publications/strategy/index.html>

Beneficial Uses Declarations

<http://www.DLPE.nt.gov.au/natural-resource-management/water/legislation/beneficial>

14 PART B: Completing a waste discharge licence application

This part provides more detailed information to assist applicants in completing a WDL application.

The application form for a WDL is available on the NT EPA website at: <http://www.ntepa.nt.gov.au/waste-pollution>.

Applications should be lodged electronically by emailing the NT EPA at: pollution@nt.gov.au

or by delivering to:

NT EPA
Pollution Control
Physical Address: Level 2 Darwin Plaza, 41 Smith Street Mall, Darwin NT 0800
Postal Address: GPO Box 3675, Darwin NT 0801

15 Applicant details

This section must be completed by the person or entity that will hold the Licence. The applicant must be the person, body corporate, statutory authority, council or incorporated association with overall management and control of operations.

Licenses cannot be issued to a partnership, a joint venture name or a trading name. If several individuals operate a partnership the WDL can be issued to one or more of the persons involved. Where a company is the operator, it is essential that the company holds the WDL not an individual manager. The name of the company licensed must be the registered name of the company.

For further information on joint interests refer to section 18 of the *Water Regulations*.

16 Location of the premises

The location of the premises to which the activity applies must be clearly identified. Identification details including Land Search Parcel number, Lot number, Folio identifier or Volume-folio, Registered Deed number and/or Mine Lease Northern (MLN) numbers must be provided as applicable.

The coordinates for the points of interchange for the boundaries of the site must be included. For example, if the site is close to rectangular, four sets of coordinates taken at the corners of the rectangle would be sufficient. However, if the site is a different shape please include as many readings as necessary to clearly identify the land included.

The coordinates must be recorded in longitude and latitude using decimal degrees with a minimum of five decimal places including relevant mapping references.

The applicant must provide a location map in relation to surrounding land uses, drawn to scale showing:

- Scale bars;
- True north;
- Contours;
- Site boundaries;
- Other adjoining premises (residential, commercial and/or industrial);

- All sensitive ecological receptors and local water drainage areas, including all nearby creeks, wetlands, lakes, rivers, endangered flora and fauna, local habitats;
- Discharge points and expected flow or course to receiving waters;
- Proposed mixing zone, if any; and
- The location of proposed monitoring points including in-stream monitoring points that demonstrate the extent of impact of the proposed discharge.

17 Emergency contact

The NT EPA requires information on who will be the emergency contact for the licensed activity. This person must be contactable 24 hours a day and be capable of responding to an incident associated with the licensed activity.

18 Permission to use land

Where an activity generating the waste to be discharged is conducted on land owned by a person or entity other than the WDL applicant, or the waste travels over land that is owned by a person or entity other than the WDL applicant, evidence of permission to use land for the purpose must be provided with a WDL application. Permission must be provided by the land owner. Where land owner consent cannot be provided a note to that effect with reasons must be provided with a WDL application.

19 Activity

The applicant must specify the activities relating to the WDL application and creating the waste discharge. The applicant must provide scale diagrams of site design, layout and discharge processes showing:

- True north;
- Existing and/or proposed facilities;
- Plans and cross-sectional drawings of proposed works, including inlet and outlet points, baffles or other works to be installed at the discharge point;
- A longitudinal-section drawing along the outfall drainpipe or diffuser for the disposal of waste to waters; and
- A schematic flow diagram of the treatment and disposal process proposed, including a piping and instrument diagram where appropriate.

20 Discharge points

The applicant must provide details of all discharge points pertaining to the licensed activity.

The coordinates must be recorded in longitude and latitude using decimal degrees with a minimum of five decimal places including relevant mapping references.

The description of the discharge point(s) must include proximity of the discharges to water, and an assessment of the sensitivity/significance from an environmental, cultural, and/or economic perspective. Beneficial Use Declarations and Sites of Conservation Significance will assist in identifying environmental values and are available on the Department of Land Resource Management website at:

Beneficial Use Declaration: <http://lrm.nt.gov.au/water/legislation/beneficial>

Sites of Conservation Significance: <http://www.lrm.nt.gov.au/plants-and-animals/conservation-for-land-managers/sites-of-conservation-significance>

21 Mixing zone

The applicant should clearly identify any proposed mixing zone. The NT EPA generally requires any proposed mixing zone to be supported by a model with data. For further information on mixing zones refer to the NT EPA *Guidelines on Mixing Zones* available from the NT EPA website at: <http://www.ntepa.nt.gov.au/waste-pollution/guidelines/guidelines>.

22 Factors to be considered under section 90 of the Act

22.1 (a) the availability of water in the area in question

The applicant should provide some discussion on the availability of water in the area subject to the proposed discharge. This discussion may consider any potential impacts the proposed discharge may have in relation to water availability for other uses and/or the available options with respect to water receiving the proposed discharge. Water availability information may be sought from the Department of Land Resource Management.

22.2 (ab) any water allocation plan applying to the area in question

The Act allows for enhanced water resource management in certain areas through the development of Water Allocation Plans. The applicant should be familiar with and identify in his or her application what, if any, Water Allocation Plans are in effect for the region in which the proposed discharge will occur. Water Allocation Plans are administered by the Water Resources Division of the Department of Land Resource Management. Further information on Water Allocation Plans is available from the Department of Land Resource Management at: http://lrm.nt.gov.au/water/water_allocation.

22.3 (b) the existing and likely future demand for water for domestic purposes in the area in question

The applicant must consider the existing and future demand for water for domestic purposes from the proposed discharge area and the potential impact of the proposed discharges on this specific use. This information and how the potential risks if any are to be addressed must be submitted with the WDL application. Information on existing and future demand for water for domestic purposes may be available from the Department of Land Resource Management.

22.4 (c) any adverse effects likely to be created as a result of activities under the permit, licence or consent on the supply of water to which any person other than the applicant is entitled under this Act

The applicant should describe what, if any, adverse effects the discharge is likely to create as a result of the licensed activity on anyone else who may be using or exposed to the receiving water body and how these will be managed.

22.5 (d) the quantity or quality of water to which the applicant is or may be entitled from other sources

The applicant is required to provide copies of permits or licences which entitle the applicant to water. Where no permits or licences are held by the applicant a statement to this effect should be provided.

22.6 (e) the designated beneficial uses of the water and the quality criteria pertaining to the beneficial uses

Information on the beneficial uses of the receiving water body and/or water bodies downstream of the receiving water body should be provided and the water quality objectives, if any are prescribed, should be outlined. A description of the measures proposed to protect the designated beneficial uses should be included.

22.7 (f) the provisions of any agreement made by or on behalf of the Territory with a State of the Commonwealth concerning the sharing of water

Include information, where known, of any agreements between the Northern Territory and State or Commonwealth governments relating to the receiving water body. This would be particularly relevant when discharges enter water bodies that may cross jurisdictions (for example, the Ord River Scheme).

22.8 (g) existing or proposed facilities on, or in the area of, the land in question for the retention, recovery or release of drainage water, whether surface or sub-surface drainage water

Provide a summary of other activities conducted upstream and downstream of the proposed discharge. Consider who else is using water from the receiving water body or catchment area and how they might be using the water. For example, are there others who may be discharging or extracting water, or participating in recreational or cultural activities in the same receiving water body and catchment area.

22.9 (h) the adverse effects, if any, likely to be created by such drainage water resulting from activities under the licence on the quality of any other water or on the use or potential use of any other land

The information required to address this factor should consider the impacts if any of the proposed discharge on any other water or land use current or future. In other words will the discharge alter the way the surrounding water or land may be used today or in the future.

22.10(j) the provisions under the Planning Act relating to the development or use of land in the area in question

Information must be provided to demonstrate that the activity being conducted in association with the proposed discharge is consistent with the provisions of the *Planning Act*, or where there is no zoning or the *Planning Act* does not apply, a statement to that effect. The statement may be in the form of a copy of the land title register available from the Department of Lands, Planning and the Environment. The applicant should describe the zoning of the land and whether or not the activity is permitted within the zone.

Under the *Planning Act* many developments in the Northern Territory, new and/or modifications to existing activities, including zone changes, require a Development Consent Permit which is issued by the Development Consent Authority, Department of Lands Planning and the Environment. A copy of the Development Consent Permit and details of how the consent conditions that relate to an applicant's WDL application will be met, must be submitted with a licence application. Where a Development Consent Permit has not been issued the applicant should provide a statement to that effect.

Please contact the Development Consent Authority for further information regarding obtaining a Development Consent Permit.

22.11(k) other factors the Controller considers should be taken into account or that the Controller is required to take into account under any other law in force in the Territory

Provide a summary of any other information you think that the Controller of Water Resources or his or her delegate should consider when assessing your WDL application. This may be information relating to your performance under other licences or permits granted under the Act or your activities in other jurisdictions.

23 Supporting documentation

23.1 Environmental assessment

The Applicant must provide information as to whether the activity required environmental assessment under the *Environmental Assessment Act*. Evidence must be provided as to whether assessment at the Public Environmental Report (PER) or Environmental Impact Statement (EIS) level was required or not.

A description of how the requirements of the EIS or PER will be implemented and adhered to and how the recommendations in the Environmental Assessment Report, relevant to the WDL application, have been addressed must be included with a WDL application.

23.2 Mining and petroleum sites

Where the WDL application relates to a mining or petroleum site the applicant must submit a copy of their authorisation to carry out mining or petroleum activities, the most current approved mine management plan (part A) and the most recent environmental monitoring report with the WDL application.

23.3 Waste discharge licence justification

A justification for why a WDL should be issued must be submitted with all WDL applications. The justification should include a comparative analysis of considered options including environmental criteria and an application of the waste hierarchy.

The WDL application will not be considered unless a robust justification is included.

23.4 Continuous improvement plan

Where applicable a Continuous Improvement Plan should be submitted as a demonstration of commitment to the reduction and/or elimination of discharge through improved waste quality.

The Continuous Improvement Plan must focus on reducing the zone of impact or any declared mixing zone and progressively moving towards the discharge quality not compromising any beneficial use declaration or relevant water quality criteria for the receiving waters. Unless otherwise specified, the water quality criteria are those derived from the *Australian and New Zealand Environment and Conservation Council (ANZECC) Guidelines for Fresh and Marine Water Quality, 2000 (ANZECC 2000)*.

23.5 Discharge specifications

A proposed discharge schedule must be submitted with the WDL application. The discharge schedule must list the details for each discharge point. It must indicate discharge flow rates, duration of discharge, discharge volume(s), time(s) of discharge and discharge patterns and monitoring regimes and must demonstrate consideration of the water cycle based on tides and seasonal variations. Where rates or volumes are unknown, an estimation, including how the estimated rate(s) and volume(s) have been determined, must be provided.

The proposed discharge specifications for each discharge point, must include a description of mechanisms for the control and measure of discharge, and details of major items of equipment (for example aerators, diffusers, sprinkler types, pumps).

Proposed discharge specifications must include a description of the concentration of pollutants both before and after treatment at the point of discharge. Pollutants and indicators must be defined in accordance with the type of activity and assessment criteria determined by the beneficial use of the receiving waters. Unless otherwise specified in a beneficial use declaration the water quality criteria for pollutants in a receiving water body are those specified in ANZECC 2000 or any future revisions.

Proposed discharge specifications should include criteria for discharge (e.g. flow rate, river height, dilution etc.), trigger values and monitoring regimes. They must take into consideration the characteristics and hydrology of the receiving waters and the cumulative effects of a number of pollutants.

Where proposed discharge specifications are reliant on dilution the dilution factor must be specified including information on how the dilution factor was determined (e.g. ecotoxicology reports).

The discharge schedule must describe, where applicable, the details of multiple point discharges and the combined impact.

23.6 Monitoring plan

The application must be accompanied by a proposed monitoring plan designed to assess any potential impacts associated with the waste discharge for approval by the NT EPA. The monitoring checklist of the NT EPA *Guidelines for Consultants Reporting on Environmental Issues* provides further guidance in relation to monitoring requirements (<http://www.ntepa.nt.gov.au/waste-pollution/guidelines/guidelines>).

The Australian and New Zealand Environment and Conservation Council (ANZECC) Guidelines for Water Quality Monitoring and Reporting and the *Australian/New Zealand Standards for Water Quality AS 5667* provide suitable references for the development of monitoring plans and selection of appropriate monitoring points, including monitoring points to demonstrate compliance with a declared mixing zone.

The monitoring plan should include provision for the analysis of physico-chemical, microbiological and chemical parameters of discharge waters to be conducted by laboratories accredited by the National Association of Testing Authorities (NATA) or equivalent.

Monitoring plans should incorporate upstream, in-stream and downstream monitoring points to assess and demonstrate the extent of impact associated with the proposed discharge.

23.7 Monitoring reports

For activities with a history of monitoring, including water quality, sediment, biological or other monitoring, a tabulation and trend analysis of monitoring results associated with the discharge must be provided. These results must reflect the assessment criteria and discharge specifications in accordance with any defined monitoring plan and cover multiple Wet and Dry seasons where data is available.

For new activities or activities with no history of monitoring, microbiological and physico-chemical data of comparable discharge water and a reference point in the receiving waters must be submitted as part of the application.

23.8 Conceptual site model

A conceptual site model should be developed to:

Guidelines on waste discharge licensing under the *Water Act*

- identify the primary source of contamination in the environment and the key contaminants of concern;
- show how these contaminants of concern, at the original point of release, might move in the environment (fate and transport);
- identify the different ecological receptors (e.g. birds, mammals, fish, plants) that might come into contact with the discharge; and
- list the potential exposure pathways (e.g., ingestion of contaminated water, ingestion of contaminants in soil or food, direct contact with contaminated soil or water) that may occur for each population.

The extent and complexity of the conceptual model should reflect the environmental risks of the discharge. An NT EPA guideline on conceptual models is available at:

<http://www.ntepa.nt.gov.au/waste-pollution/guidelines>.

The conceptual site model will assist in identifying risks and risk mitigation measures and the refinement and development of monitoring plans by identifying sites and parameters to assess and monitor potential impacts.

23.9 Environmental aspects and impacts register

The register is a record of the environmental aspects and impacts associated with waste discharge specific to discharge points and receiving waters which have or can have a significant impact on the environment. All environmental aspects and impacts associated with waste discharge specific to discharge points and receiving waters must have appropriate management/mitigation controls in place. Details as to how the environmental aspects will be managed must be provided. The length and detail of the register should reflect the complexity of the proposed management and mitigation plans. The register should:

- describe existing environmental conditions prior to discharge as evidence of baseline data from which to measure impact of discharge;
- identify potential pollutants and estimate discharges by quantity, source and discharge point;
- estimate the nature and extent of all pollutants (surface waters, groundwater and sediment) and whether a mixing or impact zone is required;
- describe the fate and effects of pollutant(s) using biological, chemical and ecotoxicological evidence, including an assessment of cumulative impact in the environment;
- describe the methodology used for the assessment; and
- the assessment must identify gaps in information and data relevant to significant impacts of the proposal and actions proposed to address the gaps to enable the development of appropriate management actions.

23.10 Emergency response plan

An emergency response plan that includes contingency plans for addressing unexpected weather events (e.g. floods, cyclones and unseasonal rain), fire, spills, mechanical failure or malfunction that may impact the nature of the discharge must be included with the application.

The emergency response plan should consider the cumulative impacts of discharges associated with unexpected events.

The emergency response plan should include, where applicable, procedures for reporting events to the Pollution Hotline.

23.11 Communication plan

A communication plan describes the mechanisms for communicating with key stakeholders and should be tailored to the needs of the licensed activity.

The communication plan must clearly identify key stakeholders, what information will be provided to specific stakeholders, why that information is important to communicate and when and how the information will be provided.

The communication plan must incorporate a process for recording and managing complaints and must include a process for recording the following details:

- the date and time of the complaint;
- the contact details of the complainant, or where no details are provided a note to that effect;
- the nature of the complaint;
- the nature of the incident giving rise to the complaint;
- prevailing weather conditions at the time of the incident; and
- the action taken in relation to the complaint, including any follow-up contact with the complainant.

23.12 Declaration

This declaration must be completed by the applicant or by a person(s) who is/are authorised to act for the applicant.

