

1.11 If the applicant is a Water User Association:**1.11.1** Name of WUA: ***1.12 BBEE Status**

(Mark the applicable option with an X)

- Historically Disadvantaged Individual (HDI)
- Historically Advantaged Individual (HAI)
- Black Economic Empowerment (BEE) Compliant

Declaration by applicant

Delete the words that are not applicable I/we _____ (FULL NAME(S))
hereby declare that the information provided by me/us in this application form is, to the best of my/our knowledge, true and correct.



Signature

Thumb print

Contact number during office hours

Designation of signatory

Date (ccyy/mm/dd)

It is a criminal offence to provide information that is false or misleading.

2. DESCRIPTION OF THE WASTEWATER OR WASTE GENERATED

2.1	Select the sector that generates the wastewater or waste which this application refers to (mark only one with an X)	Industry			
		<input type="checkbox"/>	Coalbed methane	<input type="checkbox"/>	Underground coal gasification
		<input type="checkbox"/>	Shale gas	<input type="checkbox"/>	Other (please specify below)
2.2	Which of the following describes the <u>nature</u> of the flowback wastewater?(Mark at least one of the applicable option(s) with an X)	2.2.1 Wastewater containing <70% water by mass (i.e. sludge)		<input type="checkbox"/>	
		2.2.2 Wastewater containing >70% water by mass		<input type="checkbox"/>	
		2.2.3 Wastewater with high acidity (i.e. pH <5) or alkalinity (i.e. pH >10)		<input type="checkbox"/>	
		2.2.4 Wastewater with temperature of >50°C		<input type="checkbox"/>	
		2.2.5 Wastewater with an oxygen content of <5 mg/l		<input type="checkbox"/>	
		2.2.6 Wastewater with an EC (Electrical Conductivity) of >500mS/m		<input type="checkbox"/>	
		2.2.7 Wastewater with an EC of <500mS/m		<input type="checkbox"/>	
2.3	Which of the following describes the <u>nature</u> of the produced wastewater?(Mark at least one of the applicable option(s) with an X)	2.3.1 Wastewater containing <70% water by mass (i.e. sludge)		<input type="checkbox"/>	
		2.3.2 Wastewater containing >70% water by mass		<input type="checkbox"/>	
		2.3.3 Wastewater with high acidity (i.e. pH <5) or alkalinity (i.e. pH >10)		<input type="checkbox"/>	
		2.3.4 Wastewater with temperature of >50°C		<input type="checkbox"/>	
		2.3.5 Wastewater with an oxygen content of <5 mg/l		<input type="checkbox"/>	
		2.3.6 Wastewater with an EC (Electrical Conductivity) of >500mS/m		<input type="checkbox"/>	
		2.3.7 Wastewater with an EC of <500mS/m		<input type="checkbox"/>	
2.4	Which of the following describes the <u>composition</u> of the flowback wastewater?Mark at least one of the applicable option(s) with an X)	2.4.1 Wastewater consisting of > 90% organic content by mass (i.e. load)		<input type="checkbox"/>	
		2.4.2 Wastewater consisting of 50 – 90% organic content and 10 – 50% metals or salts by mass (i.e. load)		<input type="checkbox"/>	
		2.4.3 Wastewater consisting of 10 – 50% organic content and 50 – 90% metals or salts by mass (i.e. load)		<input type="checkbox"/>	
		2.4.4 Wastewater consisting of >90% metals or salts by mass (i.e. load)		<input type="checkbox"/>	
2.5	Which of the following describes the <u>composition</u> of the produced wastewater? Mark at least one of the applicable option(s) with an X)	2.5.1 Wastewater consisting of > 90% organic content by mass (i.e. load)		<input type="checkbox"/>	
		2.5.2 Wastewater consisting of 50 – 90% organic content and 10 – 50% metals or salts by mass (i.e. load)		<input type="checkbox"/>	
		2.5.3 Wastewater consisting of 10 – 50% organic content and 50 – 90% metals or salts by mass (i.e. load)		<input type="checkbox"/>	
		2.5.4 Wastewater consisting of >90% metals or salts by mass (i.e. load)		<input type="checkbox"/>	
2.6	Describe the activity that generates the waste *				
2.7	Which phase of unconventional gas activity is going to be applied?	<input type="checkbox"/>	Demonstration plant	Area (in hectares/Sq.km):	
		<input type="checkbox"/>	Production	Area(in hectares/Sq.km):	
		<input type="checkbox"/>	Decommissioning	Area(in hectares/Sq.km):	

	(Mark at least one of the applicable option (s) with an X and indicate area in hectares or square kilometres)				
2.8	Is this a re-fracturing or similar related activity? (Mark the applicable options with an X)	<input type="checkbox"/>	Yes (if yes is selected, then complete 2.9)	<input type="checkbox"/>	No
2.9	Describe the re-fracturing activity				

3	Well pad and Well Information (Please complete supplementary form DW908)
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4	Details of water use			
4.1	Water use start & end date			
	When did/will this water use start? (ccyymmdd)*	<input type="text"/>		
	When did/will this water use end? (If applicable) (ccyymmdd)	<input type="text"/>		
4.2	Portion of property/land under unconventional gas activity			
	Total area *	<input type="text"/> hectares		
4.3	Volume of wastewater (flowback and produced (cubic metres))			
	Total volume of flowback wastewater per year*	<input type="text"/>		
	Maximum volume of flowback wastewater on any given day	<input type="text"/>		
	Total volume of produced wastewater per year*	<input type="text"/>		
	Maximum volume of produced wastewater on any given day	<input type="text"/>		
4.4	Monthly flowback wastewater pattern expressed in:	<input type="checkbox"/> Cubic metres		
		Minimum	Average (compulsory)	Maximum
	January	<input type="text"/>	<input type="text"/>	<input type="text"/>
	February	<input type="text"/>	<input type="text"/>	<input type="text"/>
	March	<input type="text"/>	<input type="text"/>	<input type="text"/>
	April	<input type="text"/>	<input type="text"/>	<input type="text"/>
	May	<input type="text"/>	<input type="text"/>	<input type="text"/>
	June	<input type="text"/>	<input type="text"/>	<input type="text"/>
	July	<input type="text"/>	<input type="text"/>	<input type="text"/>
	August	<input type="text"/>	<input type="text"/>	<input type="text"/>
	September	<input type="text"/>	<input type="text"/>	<input type="text"/>
	October	<input type="text"/>	<input type="text"/>	<input type="text"/>
	November	<input type="text"/>	<input type="text"/>	<input type="text"/>
	December	<input type="text"/>	<input type="text"/>	<input type="text"/>

4.5	Monthly produced wastewater pattern expressed in:			<input type="checkbox"/> Cubic metres		
		Minimum	Average (compulsory)	Maximum		
	January					
	February					
	March					
	April					
	May					
	June					
	July					
	August					
	September					
	October					
	November					
	December					
5.	Origin of unconventional gas injection water					
	National Water Act - Section 21(?) Water Use					
	Section 21(Indicate applicable S21 water use below)	Registered*		Volume of water (m ³)	If Registered*	
		<input type="checkbox"/> Yes	<input type="checkbox"/> No		Register number	Water Use Number
		<input type="checkbox"/> Yes	<input type="checkbox"/> No			
		<input type="checkbox"/> Yes	<input type="checkbox"/> No			
		<input type="checkbox"/> Yes	<input type="checkbox"/> No			
	Other (Indicate the origin of the injection water/ water to be used for fracturing)					

6 Registered Flowback Waste Discharge Information

Average flowback volume (cubic metres)	<input type="text"/>	Time Interval: <input type="checkbox"/> Per Month	<input type="checkbox"/> Per Annum
Maximum flowback volume anticipated (cubic metres)	<input type="text"/>	Time Interval: <input type="checkbox"/> Per Month	<input type="checkbox"/> Per Annum

Quality Variable And Unit Of Measurement (Mark at least one quality variable if flowback details are applicable to the application)	Average Concentration	For Office Use Only	
		Load (kg)	NPS Load (kg)
Coliforms (Colony Forming Units/ml)			
Enteric pathogens e.g. E.coli (Colony Forming Units/ml)			
pH (pH units)			
Electrical conductivity (microsiemens per cm)			
Temperature (°C)			
Acidity (mg/l)			
Alkalinity (mg/l)			
Aluminium (mg/l)			
Ammonia (mg/l)			
Arsenic (mg/l)			
Barium (mg/l)			
Boron (mg/l)			
Beryllium (mg/l) found in coal slag			
Benzene (mg/l)			
Bicarbonate (mg/l)			
Bromide (mg/l)			
Cadmium (mg/l)			
Calcium (mg/l)			
Carbonate (mg/l) a salt of carbonic acid			
Chemical oxygen demand (mg/l)			
Chloride (mg/l)			
Chromium (mg/l)			
Chromium(vi) (mg/l)			
Cobalt (mg/l)			
Copper (mg/l)			
Cyanide (mg/l)			
Ethyl benzene (mg/l)			
Fluoride (mg/l)			
Iron (mg/l)			
Lead (mg/l)			
Lithium (mg/l)			
Magnesium (mg/l)			
Manganese (mg/l)			
Mercury (mg/l)			
Methane (mg/l)			
Molybdenum (mg/l)			
Nickel (mg/l)			

Phenol (mg/l)			
Polycyclic aromatic hydrocarbons (mg/l)			
Potassium (mg/l)			
Reactive phosphorus (mg/l) found in fertilizers, promotes microbial growth in surface waters. Maybe related to total phosphorus (checking).			
Radionuclides (mg/l)			
Soap, oil or grease (mg/l)			
Sodium (mg/l)			
Silica (mg/l)			
Selenium (mg/l)			
Strontium (mg/l) found in mining ores			
Sulphate (mg/l)			
Tin (mg/l)			
Toluene (mg/l)			
Total dissolved solids (mg/l)			
Total suspended solids (mg/l)			
Total petroleum hydrocarbons (mg/l)			
Total nitrogen (mg/l) (might account for nitrate and nitrite, checking)			
Total phosphorus (mg/l)			
Uranium (mg/l)			
Vanadium (mg/l)			
Xylene (mg/l)			
Zinc (mg/l)			
Other (mg/l)			

7. Registered Produced Waste Discharge Information

Average produced waste volume (cubic metres)	<input type="text"/>	Time Interval: <input type="checkbox"/> Per Month	<input type="checkbox"/> Per Annum
Maximum produced waste volume anticipated (cubic metres)	<input type="text"/>	Time Interval: <input type="checkbox"/> Per Month	<input type="checkbox"/> Per Annum

Quality Variable And Unit Of Measurement (Mark at least one quality variable)	Average Concentration	For Office Use Only	
		Load (kg)	NPS Load (kg)
Coliforms (Colony Forming Units/ml)			
Enteric pathogens e.g. E.coli (Colony Forming Units/ml)			
pH (pH units)			

Electrical conductivity (microsiemens per cm)			
Temperature (°C)			
Acidity (mg/l)			
Alkalinity (mg/l)			
Aluminium (mg/l)			
Ammonia (mg/l)			
Arsenic (mg/l)			
Barium (mg/l)			
Boron (mg/l)			
Beryllium (mg/l) found in coal slag			
Benzene (mg/l)			
Bicarbonate (mg/l)			
Bromide (mg/l)			
Cadmium (mg/l)			
Calcium (mg/l)			
Carbonate (mg/l) a salt of carbonic acid			
Chemical oxygen demand (mg/l)			
Chloride (mg/l)			
Chromium (mg/l)			
Chromium(vi) (mg/l)			
Cobalt (mg/l)			
Copper (mg/l)			
Cyanide (mg/l)			
Ethyl benzene (mg/l)			
Fluoride (mg/l)			
Iron (mg/l)			
Lead (mg/l)			
Lithium (mg/l)			
Magnesium (mg/l)			
Manganese (mg/l)			
Mercury (mg/l)			
Methane (mg/l)			
Molybdenum (mg/l)			
Nickel (mg/l)			
Phenol (mg/l)			
Polycyclic aromatic hydrocarbons (mg/l)			
Potassium (mg/l)			
Reactive phosphorus (mg/l) found in fertilizers, promotes microbial growth in surface waters. Maybe related to total phosphorus (checking).			
Radionuclides (mg/l)			
Soap, oil or grease (mg/l)			
Sodium (mg/l)			
Silica (mg/l)			

Selenium (mg/l)			
Strontium (mg/l) found in mining ores			
Sulphate (mg/l)			
Tin (mg/l)			
Toluene (mg/l)			
Total dissolved solids (mg/l)			
Total suspended solids (mg/l)			
Total petroleum hydrocarbons (mg/l)			
Total nitrogen (mg/l) (might account for nitrate and nitrite, checking)			
Total phosphorus (mg/l)			
Uranium (mg/l)			
Vanadium (mg/l)			
Xylene (mg/l)			
Zinc (mg/l)			
Other (mg/l)			

8.	Description of management measures for flowback and/or produced wastewater			
	Capacity for wastewater storage (cubic metres)		<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Is a storm water management system in place?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Are the wastewater management facilities suitably engineered to cater for all waste streams?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
	Are the wells properly sited to minimise contamination of groundwater?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
9	Receiving Environment/Receptor			
	Serves to address the following: The resource that needs to be protected and related issues such as: how close to surface water, groundwater level, presence of boreholes, whether communities use boreholes or abstract from the surface water, etc.			
9.1	Description of nearby water resource(s)			
9.1.1	Description of surface water resource (Mark only one box with an X)	a) Type of surface water resource nearest to the activity:		
		<input type="checkbox"/> River / Stream	<input type="checkbox"/> Dam	
		<input type="checkbox"/> Estuary	<input type="checkbox"/> Lake	
		<input type="checkbox"/> Wetland	<input type="checkbox"/> Government Water Scheme	
		<input type="checkbox"/> Marine	<input type="checkbox"/> Other (please specify below)	
	b) Name / description of the nearest surface water resource:*			
	c) Distance to nearest surface water resource (metres):*			
9.1.2	Description of groundwater resource (Mark only one box with an X)	a) Type of groundwater resource nearest to the activity:		
		<input type="checkbox"/> Spring / Eye	<input type="checkbox"/> Government Water Scheme	
		<input type="checkbox"/> Borehole	<input type="checkbox"/> Boreholes And Windmills On Government Land	
		<input type="checkbox"/> Other (please specify below)		
	b) Name / description of the nearest groundwater resource: *			

11. Property Relationship Details (Complete supplementary forms DW901 & DW902)

Property Name	Surveyed Property		Unsurveyed Property		Property Relationship Date	
					From:	To:
	Title Deed Number		Surname of the Leader of Village, Community or Tribal Authority			
	Surveyor-General Cadastral Code		Initial of the Leader of Village, Community or Tribal Authority			
	Property Number		Local Authority (if applicable)			
	Portion of property		Magisterial District (if applicable)			
			Tribal Authority/Council (if applicable)			
	Title Deed Number		Surname of the Leader of Village, Community or Tribal Authority			
	Surveyor-General Cadastral Code		Initial of the Leader of Village, Community or Tribal Authority			
	Property Number		Local Authority (if applicable)			
	Portion of property		Magisterial District (if applicable)			
			Tribal Authority/Council (if applicable)			
	Title Deed Number		Surname of the Leader of Village, Community or Tribal Authority			
	Surveyor-General Cadastral Code		Initial of the Leader of Village, Community or Tribal Authority			
	Property Number		Local Authority (if applicable)			
	Portion of property		Magisterial District (if applicable)			
			Tribal Authority/Council (if applicable)			
	Title Deed Number		Surname of the Leader of Village, Community or Tribal Authority			
	Surveyor-General Cadastral Code		Initial of the Leader of Village, Community or Tribal Authority			
	Property Number		Local Authority (if applicable)			
	Portion of property		Magisterial District (if applicable)			
			Tribal Authority/Council (if applicable)			

12. LIST OF SUPPORTING TECHNICAL INFORMATION

12.1 Confirm that the following forms have been included in this application

- DW901 Yes No
- DW902 Yes No
- DW905 Yes No

12.2 Mark with an X if these documents have been submitted with this application

- Environmental Impact Assessment (EIA)
- Environmental Management Programme (EMPR)
- Standard Environmental Management Programme
- Integrated Water and Waste Management Plan (IWWMP)
- Integrated Water Use License Application Report
- Report on Waste Water Quality (solute load, seasonal changes, etc.)
- Report on Industrial Process Generating Waste water
- Geohydrological Report (including models)
- Geotechnical Engineering Report (including models)
- Rock Mechanics Report (including models)
- Civil Engineering Designs
- Fracture Management Plans
- Minimum Requirements Checklist
- Contingency Plan for Failures and Malfunctions of System
- Monitoring Programme(s)
- Topographical Map (1:50 000)
- National Water Act (Act No 36 of 1998) – Section 27 Evaluation
- DW760 NWA-Section 21(a)
- DW761 NWA-Section 21(b)
- DW762 NWA-Section 21(b)
- DW763 NWA-Section 21(c)
- DW764 NWA-Section 21(d)
- DW765 NWA-Section 21(e)
- DW766 NWA-Section 21(f)
- DW767 NWA-Section 21(g)
- DW768 NWA-Section 21(i)
- DW780 NWA-Section 21(h)
- DW805 NWA-Section 21(j)
- DW903
- DW904
- Other (specify other documents submitted with this form)
- | | | | | | |
|---|---|--|--|--|--|
| D | W | | | | |
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| D | W | | | | |
|---|---|--|--|--|--|

13. THIS SECTION IS RESERVED FOR OFFICE USE ONLY

13.1 Management Classification Details

Waste Generating Sector	Constituent (Quality Variable)	Management Classification (Mark applicable option(s) with an X)		
		Best practice leading to zero impact	Standard/minimum requirements	Poor practice
Industry	Salinity, pH, SO ₄ , Cl, Na, heavy metals	<input type="checkbox"/> 0%	<input type="checkbox"/> 10%	70-100% <input type="text"/> <input type="text"/> <input type="text"/> %

13.2 Succession transfer and source part 2 details

13.2.1 Is this a 'succession in title' related water use transfer? Yes No

13.2.2 If yes, complete the following details where applicable.

Source Register Number	WU Number	WU Status to be Allocated	WU Close Date (if applicable) (ccyymmdd)
<input type="text"/>	<input type="text"/>	_____	<input type="text"/>
<input type="text"/>	<input type="text"/>	_____	<input type="text"/>
<input type="text"/>	<input type="text"/>	_____	<input type="text"/>

13.3 District Municipality

District Municipality Name
(if applicable)

13.4 Billing information

13.4.1 Applicant to be billed as:

Water User or Via a WUA/WSP

Start Date(ccyymmdd) End Date(ccyymmdd)

13.4.2 If to be billed via WUA/WSP:

Name of WUA/WSP _____

Is WUA/WSP a Billing Agent? Yes No

Billing Agent's Register Number

13.4.3 Billing Frequency: Annually Bi-annually Monthly

13.4.4 Bill incentive charge:

On actual load(s) or Registered load(s)

Start Date (ccyymmdd) End Date (ccyymmdd)

13.5 Waste management scheme information

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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	Waste scheme name (if applicable)	
	<ul style="list-style-type: none"> If the Waste Scheme is applicable, provide WSMP (Waste Scheme Management Parameter Name) 	
	<ul style="list-style-type: none"> Specify the date from which this WSMP is applicable to this water use (ccyymmdd) 	<input type="text"/>

13.6 Authorisation details

13.6.1 If this application represents a licence related water use (new licence application or previously submitted application) – complete following details if known/available.

Responsible Licensing Authority Reference

Responsible Licensing Authority Business

Unit

Water Quality Management Assessment:

Surname

Initials

Position / Rank

Signature

Date (ccyymmdd)

File number (i.e. Office Hardcopy Register File No)

Water Use Register Number

Received by:

Surname

Initials

Position / Rank

Signature

Date (ccyymmdd)

Captured on NRWU database

Captured by:

Surname

Initials

Signature

Date stamp of receiving office

Quality Assurance Executed by:

