APPENDIX T

Water Discharge Licence WDL 147-05 Annual Audit and Compliance Report (December 2014)



ANNUAL AUDIT AND COMPLIANCE REPORT WASTE DISCHARGE LICENCE

LICENCE NO.	WDL 147-05
REPORTING PERIOD	28 November 2013 to 2 December 2014

Please email a copy of your completed AACR to pollution@nt.gov.au.

Licensee Details

Legal Entity Name:

Power and Water Corporation

ABN:

15 947 352 360

Registered Business

15 Iliffe Street

Address:

STUART PARK NT 0820

Postal Address:

PO BOX 37471 WINNELLIE NT 0821

Contact Person:

Water Services Executive Group

Contact Details:

b/h: 08 8985 7123

mobile: 0401 117 644

email: waterservicesexecutive@powerwater.com.au

Location of Premises

Name:

Leanyer Sanderson Wastewater Treatment Plant

Address:

141 Fitzmaurice Drive LEANYER NT 0812

Section 3388 Hundred of Bagot

Telephone Numbers:

b/h: 08 8941 7218

mobile: 0401 114 461

24 hour emergency response

Contact Person:

Power and Water Corporation Emergency Response Line

Telephone Number(s):

1800 245 090

Compliance with Licence Conditions

1. The Licensee must notify the NT EPA within 24 hours if there are changes to the details of the 24 hour emergency contact as provided on page of this Licence. 2. The Licensee must notify the NT EPA within 14 if there are changes to the Licensee details sho on page one of this Licence. 3. The Licensee must notify the NT EPA within 14 after ceasing to conduct the activity to which this Licence relates. 4. The Licensee must notify the NT EPA prior to making any operational change that will cause, likely to cause, an increase in the potential for environmental harm, environmental nuisance, material environmental harm. 5. The Licensee must cause a copy of this Licence for the Licensee must cause a copy of this Licence for the Licensee must cause a copy of this Licence for the Licensee must cause a copy of this Licence for the Licensee must cause a copy of this Licence for the Licensee must cause a copy of this Licence for the Licensee must cause a copy of this Licence for the Licensee must cause a copy of this Licence for the Licensee must cause a copy of this Licence for the Licence	t 424- one of 1 days own t days is or is	No changes that required notification No changes that required notification No changes that required notification Penstocks opening	A A	On-aoina	***
		No changes that required notification No changes that required notification Penstocks opening	NA)	NA.
		No changes that required notification Penstocks opening		On-going	NA A
	or is	Penstocks opening	NA	On-going	NA
	harm or serious	to prevent further overflow from Sanderson 2	D2014/32757	20/1/2014	
		Penstock trial for TDT	D2014/111570	3/3/2014	
		NTEPA provided with factsheet and TDT schedule	D2014/262759	20/5/2014	Celestration (April 1997)
		Leanyer Pond 3 and 4 offline for channel works prior to TDT	D2014/290647	4/6/2014	
		Change to wet season operating mode to prevent overflow	D2014/482773	22/9/2014	
	e a copy of this Licence to				
5.1. on the License	on the Licensee's Australian website; and	PWC Internet	Web link	Ongoing	Compten
5.2. at the Registe	at the Registered business address.	PWC Aquanet (intranet)	D2013/29734; D2013/424331	18/1/2013 Ongoing	Complement
6. Where this Licence requires the provision of ar	uires the provision of any	PWC provides all	Refer to evidence with	Ongoing	Camplight of

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Condition	Action	How	Evidence	When (Date)	Status
	notice, document or other correspondence to the NT EPA, the relevant contact is:	notifications to pollution@nt.gov.a	respect to specific notifications in this		
	Pollution Control	3	AACK		
	NTEPA				
	Physical Address: Level 2 Darwin Plaza, 41 Smith Street Mall, Darwin NT 0800				
	Postal Address: GPO Box 3675, Darwin NT 0801	411			
	Email: pollution@nt.gov.au				
.7	All notices, documents or other correspondence required to be provided pursuant to this Licence must be provided in both hard and electronic form unless otherwise specified as a condition of this Licence.	PWC requested that a concession to submit electronic as opposed to hardcopies for WDL 150-03 be considered for WDL 147-05, 151-04 and 159-04 as well NTEPA advised PWC they no longer requires hard copies for WDL 147-05	D2013/653494	11/12/2013	
	OPERATIONAL				

Evidence When (Date) Position paper on SSTVs – 14/2/2012 2014 Monitoring 3/11/2014 Report – 2014/496849
0 +
How PWC does all things reasonable and practical to protect BUs within the constraints of the existing WSP technology and for a discharge in this location i.e. poorly flushed estuary (legacy issue for over 40 years). The WwTP performs well in reduction of loads and prevention of direct faecal contamination. PWC periodically undertakes necessary operational changes to ensure the optimum capacity and functioning of the WSPs. Major operational changes such as desludging of
The Licensee must, without limiting any other condition of this Licence in conducting the Activity do all things reasonable and practicable to ensure the Activity does not adversely affect the Declared Beneficial Uses and Objectives as declared from time to time, including those applying to:

Condition	Action	How	Evidence	When (Date)	Status
		activities such as desludging were undertaken within the period of this AACR. Buffalo Creek is considered a highly disturbed aquatic ecosystem and likely to remain in this state without significant infrastructure investment that will require government/public consultation. The protection of Beneficial Uses is not typically applied in mixing zones in accordance with ANZECC and ARMCANZ (2000).			
	The Darwin Harbour Region.				
တ်	The Licensee must maintain and implement a communication plan which includes a strategy for communicating with members of the public who are likely to have a genuine interest in or be affected by the Activity.	Maintenance - approved WDL communication strategy is being updated in conjunction with PWC Corporate Comms Implementation - (only partial	Approved strategy is under revision Email from Jane Dellow D2014/446957, Corporate Communications Provision of data to AHU D2014/451238	Ongoing 4/9/2014	Non-compliant
		implementation	and contribution of		

Condition	Action	How	Evidence	When (Date)	Status	
		while strategy under review). Additional task specific communication	ARC Project Summary D2014/440713 for Darwin Harbour Report Card	28/8/2014		
		developed and implemented inclusive of signage, public notices, fact sheets etc.	PWC Internet Site – News regarding continuous improvement at Leanyer Sanderson	6/3/2013		
			TDT Comms Plan D2014/191138	20/5/2014		
		NTEPA advised of non-compliance	D2014/607187	2/12/2014		
10.	The Licensee must keep a legible record of each complaint made to the Licensee or any employee or agent of the Licensee in relation to the Licensed Action(s). The record of a complaint must include details of the following:	Complaint log recorded in both PWC database MAXIMO and in the PWC WQ Complaints Tracking Worksheet	Complaints Tracking Worksheet in Compliance Matrix Tracking file; MAXIMO Search Results for this period - D2014/607982	Ongoing		
	 the date and time of the complaint; 	Recorded in MAXIMO and WQ Tracking	Refer above	Refer above		
	 the contact details of the complainant if known; 	Recorded in MAXIMO and WQ Tracking	Refer above	Refer above		
	 the nature of the complaint and events giving rise to the complaint; 	Recorded in MAXIMO and WQ Tracking	Refer above	Refer above		
	 prevailing weather conditions at the time of 	Not recorded in	Refer above	Refer above		

Condition	Action	How	Evidence	When (Date)	Status
	the complaint;	MAXIMO but recorded in WQ Tracking			
	the action taken in relation to the complaint;	Recorded in MAXIMO and WQ Tracking	Refer above	Refer above	
	any conclusions the Licensee made regarding the cause of the complaint; and	Recorded in MAXIMO and WQ Tracking	Refer above	Refer above	
	any preventative measure put in place to prevent reoccurrence.	Recorded in MAXIMO and WQ Tracking	Refer above	Refer above	
Ę	During the term of this Licence the Licensee will improve its complaint management system to enable the following details to be recorded:				
	where contact details of the complainant are incomplete, a note or flag to that effect;	<u>:</u>		Ì	
	methods, other than telephone calls, by which complaints are received;	 Complaint Tracking Worksheet captures all 	Refer Condition 10	Ongoing	Comments of the second
	details of follow-up contact with the complainant; and	relevant fields			
1. Co.	if no action was taken by the Licensee in relation to the complaint, the reasons why no action was taken.				
	DISCHARGES AND EMISSIONS				
12.	This Licence authorises wastewater to be discharged from the Authorised Discharge Point(s) identified in Table 1, and in Appendix 1.	Overflow from Sanderson 2 in wet	Non-compliance notification to NTEPA - D2014/32757	20/1/2014	Non-compliant
	Table 1 Authorised Description Location Discharge Point	season (heavy rain)	Overflow log sheet -D2014/36306		

Status				plesdany.	Non-compliant
When (Date)		Ongoing	Refer above	Refer above	18/10/2013 Ongoing
Evidence		Site notes and field sheets with QDL observations stored in F2011/6237	Refer above	Refer above	Notified NTEPA of ongoing non-compliance – D2013/551045
How		Qualitative discharge limits assessed during routine monitoring and recorded on site notes for each sampling day and/or field sheets for each site	Qualitative discharge limit complied with	Qualitative discharge limit complied with	Chlorophyll-a persistently elevated with respect to default guidelines indicative of high phytoplankton biomass. At times this biomass may
	End of outfall pipe Longitude: at the headwaters 130.91057 of Buffalo Creek. Latitude: -12.35888	Wastewater(s) discharged from the Authorised Discharge Point in Table 1 must not:	contain any visible matter, floating oil and grease or petroleum hydrocarbon sheen or scum, or litter or other objectionable matter;	cause or generate odours which would adversely affect the use of surrounding waters;	cause algal blooms;
Action	SLe100	Wastewater Discharge F	• cont grea scun	cause cadverse waters;	caus
Condition		13.			

Condition	Action	How	Evidence	When (Date)	Status
		be visible as a 'red tide' bloom that is more commonly identified as the dinoflagellate Kryptoperidinium foliaceum	Specific observations of 'red tides' in September 2014 reported to NTEPA Email notification to NTEPA D2014/453219 and follow up summary report provided via email D2014/464139 Additionally advised of continued observations on 17/9/2014 via email D2014/46608 Follow up report provided D2014/536042 22/10/2014	4/9/2014 – 22/10/2014	
	cause visible change in the behaviour of fish or other aquatic organisms;	Qualitative discharge limit complied with	Refer above	Refer above	C S
	cause mortality of fish or other aquatic organisms; or	Qualitative discharge limit complied with	Refer above	Refer above	Camping of
	cause adverse impacts on plants.	Qualitative discharge limit complied with	Refer above	Refer above	
	MONITORING				
4	The Licensee must for all terrestrial sampling points required by this Licence:				
	14.1. install, maintain and provide appropriate identification signage so that they are easily identifiable at all times; and	Signage in place and remains in good condition	Email notification – D2012/153355 Confirmed by NTEPA at site inspection	Ongoing 17/3/2014	
	14.2. maintain safe access and egress, as is	Clear access on site for monitoring	Site layout drawing B11-1008 -	Ongoing	Table 10

Condition	Action	How	Evidence	When (Date)	Status
	reasonably practicable.	point SLe100/SLEBCDP	D2013/223433 Confirmed by NTEPA at site inspection	17/3/2014	
7 .	For each sample required to be collected by this Licence the following information must be recorded and retained:	Refer below	Refer below	Refer below	
	the date(s) on which the sample was taken;	Recorded on Field Sheets/Site Notes and stored in TRIM	F2011/6237	Ongoing	Christian
	 the time(s) at which the sample was collected; 	Recorded on Field Sheet at each site and stored in TRIM	F2011/6237	Ongoing	1. planta
	 the point(s) at which the sample was taken; 	Recorded on Field Sheet at each site and stored in TRIM	F2011/6237	Ongoing	Charles
	the name of the person who collected the sample;	Recorded on Site Notes for each trip	F2011/6237	Ongoing) (September 1
	 the chain of custody forms relating to the sample(s); 	COC forms submitted with each sample batch and confirmation returned via email and stored in TRIM	F2011/6237	Ongoing	S
	the field measurements and/or analytical results for the sample; and	Field measurements recorded on Field Sheet for each site and stored in TRIM; Analytical results stored in TRIM by laboratory/matrix type	Field sheets - F2011/6237 Analytical results - example for AWQC (water) by year - F2013/3962 and F2014/4225 example for Eurofins (sediment) F2014/2968	Ongoing	

Condition Action	Action	How	Evidence	When (Date)	Status
	laboratory QA/QC documentation (where laboratory analysis required).	Refer above for analytical result reports; this includes the results for blind QA/QC sampling undertaken by PWC; Location of blind duplicates recorded on site notes and field measurements for QA/QC samples on field sheets	Refer above	Ongoing	
.6	Discharge water monitoring must be conducted in accordance with Appendix 1.	All discharge water monitoring compliant with Appendix 1	WDL 147 Summary Data and Plots Spreadsheet – D2014/437516 No reports of missed sampling in Field Sheets or Site Notes in F2011/6237 in this period	Ongoing	

Condition	Action	How	Evidence	When (Date)	Status
17.	Surface water monitoring must be conducted in accordance with Appendix 2.	All surface water monitoring compliant with Appendix 2 except when access not physically possible or access not safe due to rough weather. SLEBC01 and SLEBC03 not accessible by boat on 27/11/2013 due to fallen trees. SLEBC01 not accessible on 11/12/2013 due to fallen trees. SLESB02 not accessible on 6/2/2014 due to rough weather. Samples taken from closest accessible point on 11/12 and 6/2.	NTEPA advised of these unavoidable non-compliances - D2013/630374 D2013/657033 D2014/65647	28/11/2013 12/12/2013 7/2/2014	Non-compliant
9.	The Licensee must, for <i>Enterococci spp.</i> at Monitoring Point SLEBC06, meet the National Health and Medical Research Council (NHMRC) Guidelines for secondary recreational contact.	Enterococci exceeded this SSTV twice and only in the wet season when other factors beyond the control of PWC also apply including catchment sources	WDL 147 Summary Data and Plots D2014/437516 November 2013 SSTV Exceedance Report D2014/89001 February 2014 SSTV Exceedance Report D2014/127173	27/11/2013	Non-compliant

Status				NA (last AACR period)		
When (Date)	Ongoing	17/6/2013	30/8/2013	30/9/2013	3/10/2013	16/10/2013
Evidence	WDL 147 SSTV Mastersheet D2014/227497	NT EPA acknowledgement email - <u>D2013/311007</u>	AIMS expert review by Dr Dan Alongi – D2013/434139 Email submission of review to NTEPA – D2013/455654	Email to NT EPA requesting extension - D2013/513809	Email from NT EPA - D2013/520789	Proposed BCSMP - D2013/534016;and Email submission of BCSMP - D2013/545470
How	Monitoring data processed and SSTVs applied in dedicated spreadsheet	NTEPA accepted plan to proceed with expert review and submit a revised SMP for approval by 1 October 2013.	Expert review of BCISMP provided to NTEPA.	PWC requested revision of due date for revised BCSMP from 1 October to 18 October 2013	NTEPA acknowledged revised due date	PWC submitted revised BCSMP
Action	The Licensee must, for stressors including nutrients and physiochemical parameters at Monitoring Point SLEBC08, apply the 90 th percentile for each respective parameter determined by using the most recent 24 month rolling average from data collected at SLESB02.	The Licensee must submit a Sediment Monitoring Plan by 30 April 2013. The plan must: 20.1. be approved by the NT EPA noting that the NT EPA may require the Licensee to revise, amend and/or resubmit the proposed plan; and				
Condition	6	20.				

Condition	Action	How	Evidence	When (Date)	Status
		PWC revised and resubmitted	Email submission to NTEPA – D2013/651568	10/12/2013	
		BCSMP in response to NTEPA comments	Acknowledgment of receipt and that approval letter should follow –D2013/651942	10/12/2013	
	20.2. be implemented within 10 Business Days of receiving written approval of the plan from the NT EPA.	Written approval received from NTEPA via email 21/1/2014 (your ref: EN2011/0021~016 0)	D2014/35179	21/1/2014	
		PWC notified NTEPA of evidence of implementation dating back to November 2013 with sampling commencing in	D2014/245812	12/5/2014	
	RECORDING AND REPORTING				
21.	All records required to be kept by this Licence must be in a legible format.	PWC stores all records in dedicated containers in a record management system - TRIM	Refer to links throughout this AACR	Ongoing	
22.	The Licensee must keep records of all non-compliances with this Licence.	PWC maintains a Compliance Matrix Tracking	Compliance Matrix Tracking Sheet – D2012/66732	Ongoing	

Condition	Action	How	Evidence	When (Date)	Status
		Worksheet and a dedicated WDL Compliance and Administration TRIM container.	TRIM Container – F2006/5058		
23.	The Licensee must as soon as practicable and in any case within 24 hours notify the NT EPA of non-compliances with this Licence.	PWC has notified	Compliance Matrix Tracking Sheet – D2012/66732		
		NTEPA asap of each non-compliance	TRIM Container – F2006/5058	Ongoing	Committee)
			Notification emails throughout this AACR		
54	The Licensee must immediately and in any case within 24 hours notify the NT EPA of any potential or actual environmental harm or pollution not subject to the conditions of this Licence by contacting the Pollution Hotline on telephone number 1800 064 567 and emailing pollution@nt.gov.au.	PWC notified NTEPA of potential environmental harm due to preliminary identification of Gymnodinium sp by TWS staff. Subsequently identified as Kryptoperidinium foliaceum (not harmful to human health). Follow up reports were subsequently provided to NTEPA	Notification email – D2014/453219 Follow up reports detailed in Condition 13	4/9/2014	
25.	The Licensee must for any exceedance of a site specific trigger value at SLEBC08 or NHMRC Guide at SLEBC06:	SSTV exceedances recorded and	All SSTV reports/notification emails stored in	23	
	25.1. notify the NT EPA of the exceedance as soon as practicable and in any case within 24 hours by emailing	reported for each month since November 2013 (data from October	dedicated TRIM Container for WDL 147 – F2013/6185	Ongoing	

Condition	Action		How	Evidence	When (Date)	Status
	pollution@nt.gov.au; and 25.2. provide a written report within 10 business days of the notification provin accordance with condition 25.1. To written report must include an assessment of the risk posed by the exceedance and any management actions taken.	iu; and eport within 10 he notification provided condition 25.1. The t include an risk posed by the iny management	2014 not processed to date due to reporting commitments at this time)	All monthly reports compiled in dedicated excel file WDL 147 SSTV Mastersheet D2014/227497		
26.	The Licensee must comply with the requirements of section 14 of the Waste Management and Pollution Control Act.	ith the requirements of igement and Pollution	No section 14 Incidents in this reporting period	Compliance Matrix Tracking Sheet – D2012/66732	Ongoing	Lie Marie
27.	The Licensee must provide to the NT EPA a Periodic Report. The Periodic report must: 27.1 include a tabulation of discharge flow data, field results and laboratory analytical results including discharge water, surface water and sediment monitoring parameters required as a condition of this Licence; 27.2. include a trend chart for all parameters at monitoring point SLEBC08, showing a comparison with the SSTV's; and 27.3. be submitted in accordance with the following schedule: Reporting Period Report Submission at end of: January, February, March, July April, May, June July, August, September, December, November, December	lic report must: include a tabulation of discharge flow data, field results and laboratory analytical results including discharge water, surface water and sediment monitoring parameters required as a condition of this Licence; include a trend chart for all parameters at monitoring point SLEBC08, showing a comparison with the SSTV's; and be submitted in accordance with the following schedule: g Period Report Submission at end of: Tebruary, March, July July June ust, September, January November,	January 2014 submission July 2014 submission	D2014/54302 D2014/391324	31/07/2014	

Condition	Action	How	Evidence	When (Date)	Status
28.	The Licensee must complete the attached Annual Audit and Compliance Report (AACR), Appendix 4 and provide to the NT EPA a minimum of 20 Business Days prior to the anniversary of the commencement date of this Licence, for each year of this Licence noting that the NT EPA may require the Licensee to revise, amend and/or resubmit the AACR.	2013 AACR due 13/12/2013 provided early. NTEPA did not advise that any revision, amendment or resubmission was required	Email submission to NTEPA – D2013/641895	4/12/2013	
		2014 AACR due 15/12/2014 (this document in prep)	This AACR – D2014/606122	Due outside this AACR period	NA
29.	The Licensee must provide to the NT EPA a minimum of 20 Business Days prior to the expiry date of this Licence a Licence Report.	Licence Report due 12/12/2014 submitted 3/11/2014	Submission to NTEPA - D2014/555780 2014 Licence Report -	3/11/2014	in the state of th
30.	The Licence Report must include:				
	30.1. a Monitoring Report prepared in accordance with the requirements for a Monitoring Report identified on pages 12-21 of the document: Guidelines for Consultants Reporting on Environmental Issues available from: http://www.nretas.nt.gov.au/ data/assets/pdf file/0009/14031/consultants reporting environmental issues.pdf; and	The Guideline/page numbers referred to no longer relevant (subsequently revised). NTEPA confirmed that a relevant targeted report was appropriate	Email from responsible NTEPA officer – D2014/499940	30/9/2014	Ā
	30.2. a trend analysis and interpretation of all monitoring data required as a condition of this Licence.	Attachment A of report submission and Licence Report itself. Isotope Report provided separately	Refer to Condition 29 above Submission email – D2014/503524	3/11/2014	
	PERFORMANCE IMPROVEMENT				

Condition	Action	How	Evidence	When (Date)	Status
31.	The Licensee must conduct a desktop environmental risk assessment for the Licensed Activity.	Draft ERA prepared and undergoing internal review	Draft ERA – D2014/534342	1/12/2014	
32.	The environmental risk assessment must be:				
	32.1. conducted with reference to the Conceptual Site Model in Appendix 3; and	Refer Condition 31 (Draft includes approved CSM)	Refer above	1/12/2014	Complete
	32.2. submitted to the NT EPA with the Licence Report developed in accordance with condition 30 of this Licence, noting that the NT EPA may require the Licensee to revise, amend and/or resubmit the proposed assessment.	ERA not due until 12/12/2014 which is outside this AACR period (Licence Report submitted early – Refer condition 29)	NA	Ą	₹
ર્છ્સ સં	The Licensee must implement measures to improve the discharge such that the 80 and 20 percentile of the SLESB02 reference dataset may be defined for selected stressors at Monitoring Site SLEBC08 in the following licensing period.	TDT and Associated Monitoring Program implemented in 2014 Dry season. However it takes 2 years of data under altered conditions to determine new SSTVs (ANZECC and ARMCANZ 2000). At this stage PVVC still needs to assess the effect of the TDT before this discharge strategy can be implemented under the performance improvement plan for Leanver	Data from TDT still incoming and requires significant clean up and compilation into assessable formats – F2014/4236. The data assessment is a large task that will need to be outsourced in 2015. The 2013 AACR advised NTEPA that it was not possible to comply with this condition as written (never feasible due to the timeframes required and prior to an assessment of impacts of the TDT).		Non-compliant

Condition Action	How	Evidence	When (Date)	Status
	Sanderson			

2. Summaries

Complaints Recording

Number of complaints recorded by the licensee during the reporting period (as required by condition 10 of the licence	0
Summary of complaints	NA
Summary of outcomes	NA

Notifications of potential or actual environmental harm or pollution

Number of events recorded by the licensee during the reporting period (as required by condition 24 of the licence	1
Summary of events	Potential environmental harm due to preliminary identification of harmful species in visible bloom in Buffalo Creek.
Summary of outcomes	Specific expert identification did not identify harmful species. Follow up monitoring showed rapid bloom dissipation and DO not anoxic. Blooms naturally dissipate with tidal changes and it seems likely these observations are more of a physical phenomenon (aggregation of biomass under lower tidal ranges) in the way that phytoplankton presents on these neap tides at this time of the year.

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Signature and Certification

Seal (if signing under seal):

This declaration must only be signed by a person(s) with the legal authority to sign it. The ways in which the application may be signed, and the people who may sign the application, are set out in the categories below. Tick | The application must be signed and certified by one of the following: If the licence holder is: An individual The individual. A partnership A partner. The common seal being affixed in accordance with the Corporations Act, or Two directors, or A company A director and a company secretary, or If a proprietary company that has a sole director who is also the sole company secretary - by that director. The Chief Executive Officer (CEO) of the public authority, or By a person delegated to sign on the public authority's behalf in accordance A public authority with its legislation (Please note: a copy of the relevant instrument of delegation must be attached to this application). I/We hereby declare that the information provided in this Annual Audit and Compliance Report and accompanying documents is to the best of my/our knowledge, true and correct. Baskewill Signature Signature John Baskerville Name (printed) Name (printed) **Position** Position **Chief Executive** Date Date

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