

LEGISLATIVE ASSEMBLY OF THE NORTHERN TERRITORY

WRITTEN QUESTION

Mr Wood to the Minister for Essential Services:

Power and Water Corporation Bores

1. *How many bores are there now in total east of Girraween school?*

Six. There are two existing operational bores, HEP1 and HEP2. Power and Water is currently delivering a project to equip and connect four previously drilled boreholes in the Howard East Water Management Zone to increase emergency supply capacity for the Darwin region. The four bores were drilled in the 1980s as part of long term planning for Darwin's public water supply. The project is nearing completion and the bores are expected to be commissioned in early 2016.

The depth and pumping capacity of the bores are tabulated below:

Bore	Pump setting depth (m)	Pumping Capacity (l/s)
HEP1	32	27
HEP2	49	31
HEP3	52	35
HEP4	44	35
HEP5	43	35
HEP6	41	30

Note that there are also four existing bores in the adjacent McMinns borefield:

Bore	Pump setting depth (m)	Pumping Capacity (l/s)
M54	40	55
M55	30	39
M62	28	60
M64	46	54

2. *What is the average depth of the bores?*

Per the table above, the average pumping depth of the bores is approximately 40m.

3. *What is the amount of water that Power and Water is licenced to extract from the Howard East Bore field?*

Power and Water is licenced by the Department of Land Resource Management (DLRM) to extract water from the McMinns and Howard East Borefields under licence KD14 with a total annual extraction limit for the combined McMinns and Howard East Borefield of 8,420 million litres (ML) per year.

It is estimated that Power and Water's extraction represents less than 20% of total annual extraction from the resource.

Response to Mr Wood, Questions on Notice, October 2015

The Department of Land Resource Management has a register of licences at <http://www.lrm.nt.gov.au/water/permits/register>

4. How much is being extracted presently?

Current extraction rates are comparable to extraction rates in previous years. Power and Water's monthly extraction for July to November 2015 is included in Appendix A. For reference, monthly and annual extraction data for 2014/15 is also included. This information is reported to DLRM in accordance with licence conditions.

5. How many bores operate at the one time?

Currently and historically it has been necessary to operate all of the existing bores as continuously as possible, to enable Power and Water to meet water supply demand requirements, while staying within the limits of the 2207 licence.

Following commissioning of the four additional bores the number of bores and their operating times will be dependent on bore performance. The new bores will provide Power and Water with greater operational flexibility including the ability to more evenly distribute extraction over the whole borefield.

Extraction July – Nov 2015

	Bore		Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Accumulative total 2015/16(kL)	Percent of Extraction Limit	Maximum Annual Entitlement
	ID	RN								
McMinns Borefield	M54	6310	148,603.00	149,754.94	137,919.00	139,797.00	120,207.00	696,280.94	32.39%	2,150,000
	M55	6231	21,402.00	5,525.00	0.00	0.00	0.00	26,927.00	2.64%	1,020,000
	M62	7048	88,992.00	89,000.00	89,000.00	89,000.00	89,141.00	445,133.00	43.64%	1,020,000
	M64	7071	132,764.00	133,802.30	118,914.00	132,022.00	96,872.00	614,374.30	39.64%	1,550,000
Howard East Borefield	HEP1	20496	73,587.00	68,944.95	58,810.00	39,544.00	32,183.00	273,068.95	21.01%	1,300,000
	HEP2	20497	88,887.00	87,427.94	80,655.00	72,851.00	77,341.00	407,161.94	29.50%	1,380,000

Total Extraction 2014/2015

	Bore	Jul-14 (kL)	Aug-14 (kL)	Sep-14 (kL)	Oct-14 (kL)	Nov-14 (kL)	Dec-14 (kL)	Jan-15 (kL)	Feb-15 (kL)	Mar-15 (kL)	Apr-15 (kL)	May-15 (kL)	Jun-15 (kL)	Accumulati ve total 2014/15 (kL)	Per cent of Extraction Limit	Maximum Annual Entitlement (kL)
McMinns Borefield	M54	158,987.00	154,409.00	147,462.00	149,858.00	7,461.00	0.00	0.00	0.00	61.00	110,019.00	157,248.35	146,298.00	1,031,803.35	47.99%	2,150,000
	M55	11,561.00	0.00	123.00	0.00	36.00	0.00	61,172.40	88,050.54	89,576.85	89,000.00	89,000.00	76,896.00	505,415.79	49.55%	1,020,000
	M62	89,347.00	89,000.00	89,000.00	89,000.00	89,000.00	89,005.00	89,016.00	89,000.00	89,000.00	89,192.59	67,843.63	51,824.00	1,010,228.22	99.04%	1,020,000
	M64	130,242.00	118,953.00	125,962.00	133,890.00	109,005.00	103,237.00	101,165.00	113,340.00	112,119.00	91,711.13	104,291.67	106,528.00	1,350,443.80	87.13%	1,550,000
Howard East Borefield	HEP1	49,364.00	0.00	77.00	3,838.00	54,014.00	0.00	348.00	0.00	0.00	47.00	44,125.00	75,659.00	227,472.00	17.50%	1,300,000
	HEP2	90,812.00	81,739.00	84,589.00	86,707.00	79,900.00	85,142.00	83,479.00	64,128.00	88,687.00	87,470.07	93,877.18	86,765.00	1,013,295.25	73.43%	1,380,000