Legislative Assembly Written Question Number 73

MIN REF: 2009/1628-ORK

DIRECTED TO	:	**MINISTER FOR ESSENTIAL SERVICES**
ASKED BY	:	**MS KEZIA PURICK, Member for Goyder**
SUBJECT	:	**Water Capacity and limits of McMinns Borefield**
DATE REFERRED TO MINISTER'S OFFICE	:	**12/11/09**
REFERRED TO	:	**Power and Water Corporation**

Please note that, once approved, answers to Written Questions are provided in electronic form to the Legislative Assembly and are published in Hansard. Hansard is published in a black & white Word format. Answers are to be provided in this format please. If it is considered a more complex format is necessary to answer the Question, please discuss this with Cabinet Office prior to finalising the answer.

PART A: Action Officer and Division Head to complete

It is recommended that the attached answer be provided.

Name: Paul Heaton Title: G.M. Water Services

Signature: Paul Heaton Date: 4/12/09

Endorsed by Branch/Division Head: ..... Date: .....

PART B: Chief Executive to complete

I support the above recommendation.

Signature: ..... Date: 7/12/09

CHIEF EXECUTIVE

PART C: Minister's Approval

I approve the submission of the attached answer in my name.

Signature: ..... Date: 13/12/09

PART D: Concluding Steps

1. Minister's office to return original documents to agency.
2. Agency to scan and email signed cover sheet and answer along with Word copy of answer to Cabinet Office (please use '*DCM Cabinet Office*' group email address). Cabinet Office is responsible for recording the response and onforwarding the answer to the Legislative Assembly.

No. 73

LEGISLATIVE ASSEMBLY OF THE NORTHERN TERRITORY

WRITTEN QUESTION

Ms Purick to the Minister for Essential Services.

Water Capacity and limits of McMinns Borefield

1. What is the depth and pumping capacity of the following Power and Water Corporation managed Government bores in the McMinns borefield:

Power and Water Corporation (PWC) operates two borefields: the McMinns Borefield (M) and the Howard East Borefield (HEB). Details of each are provided below and in the following sections.

- M54 (RN6310) 67.33m (sump) 63 litres/sec
- M55 (RN6231) 43.7m (sump) 38 litres/sec
- M62 (RN7048) 56.6m (sump) 63 litres/sec
- M64 (RN7071) 52.1m (sump) 63 litres/sec
- HEB1 (RN20496) 47.2m (sump) 45 litres/sec
- HEB2 (RN20497) 58.6m (sump) 50 litres/sec

2. What is the licence limit for each bore?

Bore	Annual limit (Million litres)
M54	2150
M55	1020
M62	1020
M64	1550
HEB1	1300
HEB2	1380
Total	**8420**

3. How much water was extracted from the bores for each of the last fiscal year by monthly breakdown?

Month	M54	M55	M62	M64	HEB1	HEB2
July 08	175	85	93	0	56	86
August 08	171	93	93	0	54	88
September 08	162	87	93	0	50	79
October 08	162	84	84	0	48	73
November 08	159	65	29	0	32	69

December 08	161	65	0	0	41	70
January 09	169	85	0	0	55	79
February 09	159	75	0	0	52	86
March 09	164	98	89	0	52	94
April 09	167	79	89	0	53	96
May 09	170	83	108	0	54	96
June 09	168	52	89	0	52	90
Total	**1987**	**951**	**767**	**0**	**599**	**1006**

Total pumped volume for 2008/09 was 5,310 ML, which was 63% of the annual licence limit.

M64 was previously removed from service due to the detection of E.coli and returned to service in August 2009 after ultraviolet (UV) disinfection equipment was installed at the bore.

4. **Are there any plans to deepen the bores at McMinns? If so, what environmental research was undertaken to support such an action.**

   There are no plans to deepen any bores at McMinns.

5. **Does the Power and Water Corporation intend to seek an increase in the licences for the McMinn bores and if so, to what extraction level and for which bores.**

   Power and Water Corporation (PWC) currently extract less than 15% of the total annual extraction from the Howard East aquifer through the McMinns and Howard East Borefields. The majority of extraction (85%) is from around 3000 unmetered private horticultural and rural residential bores.

   PWC has no plans to seek additional extraction from the existing McMinns bores.

   PWC has written to the Water Controller seeking approval to connect three additional bores in the Howard East borefield which was identified as Darwin's future water supply in the 1980's and were drilled in the 1990's. These new bores would add an additional 3000 - 4000ML per annum.

   PWC has been advised that further licences for additional extraction are subject to the finalisation and outcomes of a Water Allocation Plan being undertaken by the Department of Natural Resources, Environment, the Arts and Sport, for the whole water district.

   The McMinns and Howard East Borefields provide about 10% of Darwin's water supply and are an integral part of the diversification, security and emergency supply strategy.

6. **What impact any increase of the licence level would have on the Howard River East Aquifer.**

   The impact of any increase of PWC licence, or ongoing horticultural or rural residential development, is assessed by the Department of Natural Resources, Environment, The Arts and Sport.

7. **What is the intended use and usage quantities of fresh water by Inpex's proposed LNG plant and operations?**

   It is understood that the total water consumption of the Inpex site will be approximately 2 million litres per day. PWC does not have a detailed break-up of proposed water use by individual component.

8. **Could you advise what planning has been undertaken by PAWC in regard to the future demands from operators in industrial activities such as LNG plants, rare earths processing plant and related businesses.**

   PWC is advised by the Major Projects group of the Department of the Chief Minister regarding potential industrial activities such as LNG plants, rare earths processing plant and related businesses.

   PWC has developed a number of growth scenarios including various step changes by large industrial developments. To cater for these developments, PWC are currently raising the level of Darwin River Dam at a cost of $13.8M. This is expected to increase the safe yield by approximately 20% or 9000 ML per annum. PWC are currently investigating the return to service of Manton Dam. It is estimated this will cost in excess of $150M and will provide between 7000 – 15 000 ML per annum.

   PWC support the proposed Territory 2030 Strategy which aims for a 20% reduction in residential water consumption by 2015. Darwin's residential water consumption is between two to three times higher than the National average.

9. **Are all the storage tanks in Darwin, Palmerston and the rural area being used currently.**

   Yes.

10. **What is the holding capacity for the following tanks?**

o Humpty Doo	0.50 ML
o Howard Springs	0.50 ML
o Palmerston	3.00 ML
o West Lane	1.36 ML
o Stuart Park	36.00 ML

o Montoro	0.68 ML
o Salonika	0.68 ML
o Parap	0.65ML
o Winnellie	4.54 ML
o Mararra	36.00 ML
o Nightcliff	0.68 ML
o Rapid Creek	2.27 ML
o Casuarina (ground Level)	27.24 ML
o Casuarina (elevated)	4.54 ML
o Karama (ground Level)	18.00 ML
o Karama (elevated)	2.30 ML