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The Honourable Justice Rachel Pepper  
Chair  
Hydraulic Fracturing Taskforce  
GPO Box 4396  
DARWIN NT 0801

Dear Hon. Justice Pepper

**RE: HYDRAULIC FRACTURING INQUIRY – INFORMATION REQUEST**

Thank you for your letter of 27 April 2017 requesting information from the Department for the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory.

The Department of Environment and Natural Resources (DENR) represents the Government's technical and scientific knowledge and expertise with regard to water resources in the Northern Territory. We are pleased to provide available water resource and ecosystem information relating to the location of the Northern Territory's known shale gas prospective source rocks, as illustrated at Attachment A.

The information, outlined at Attachment B, is supplied for public use and licensed by the Department under Creative Commons 4.0 International. I note in your letter you requested information for all water resources within the Northern Territory and that the information supplied by DENR is focussed on areas of greatest prospectivity as described in the *Scientific Inquiry into Hydraulic Fracturing in the NT - Background and Issues Paper*. In order to respond in a managed and timely way we will discuss prioritisation of the remaining information with Richard McAllister, Director of Science.

The information package, stored onto a memory stick (USB), will be delivered by courier to the Department of the Chief Minister on Monday 15 May 2017.

We trust the information provided will be of benefit to the Inquiry. If you require any further information please do not hesitate to contact the Department.

Yours sincerely

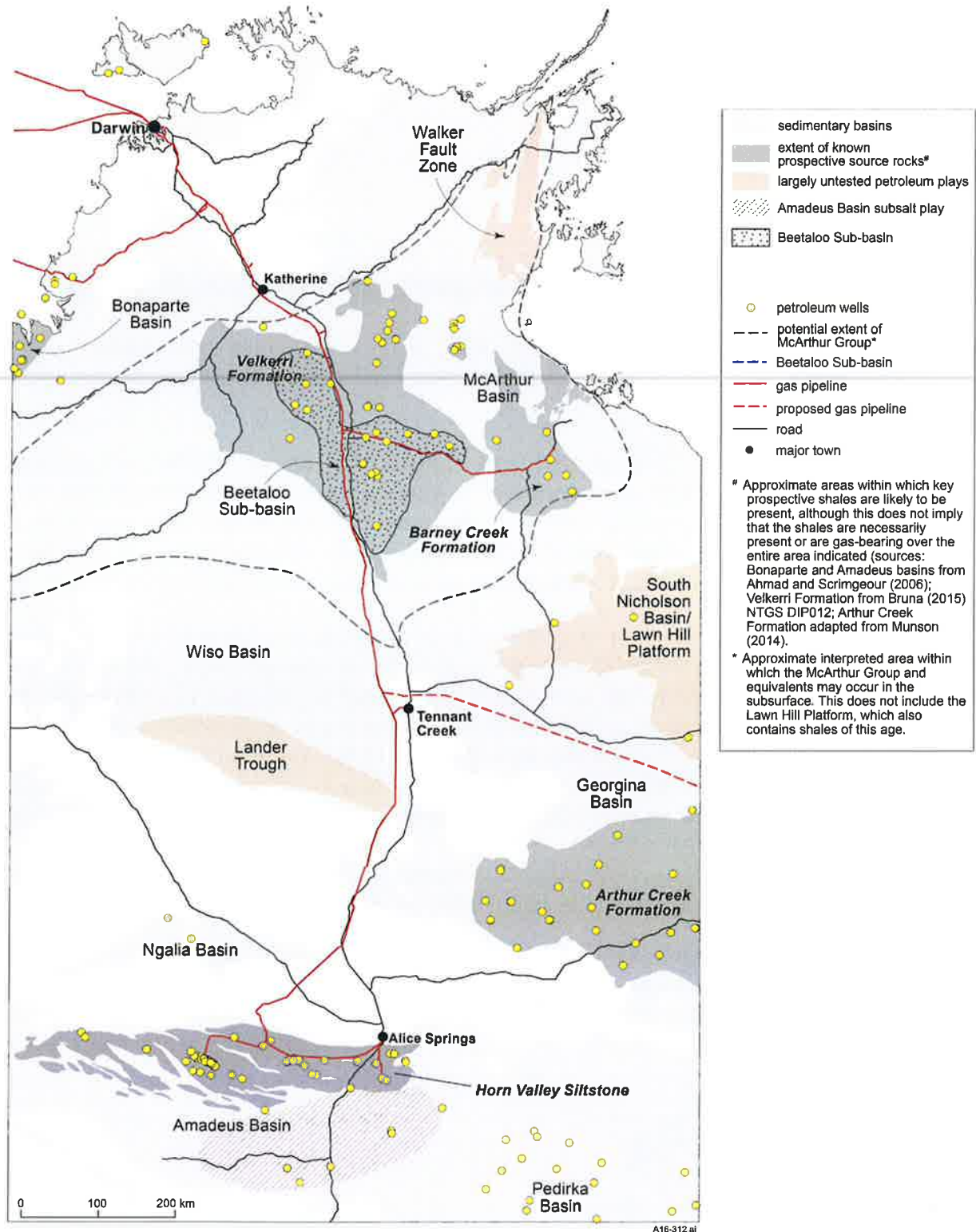


JOANNE TOWNSEND  
Acting Chief Executive Officer

12 May 2017

## Attachment A – Northern Territory's Known Shale Gas Prospective Source Rocks

Figure 7 of page 10 of the "Scientific Inquiry into Hydraulic Fracturing in the NT - Background and Issues Paper, 20 February 2017"



## Attachment B – Water Resource and Ecosystem Information Package

The information supplied by the NT Department of Environment and Natural Resources (DENR) is structured into three folders with the following contents:

### 1\_INFORMATION

About Spatial Data for Download.pdf	Supply of DENR data is subject to the Northern Territory Government Disclaimer and Creative Commons Licensing described in this file.
DENR Data List.xlsx	<p>List of supplied data and other links to other organisation or site for sourcing information that is not available from DENR.</p> <p>There are two tabs in the spreadsheet:</p> <p><b>Data Availability</b> – summary of available data, other possible information provider and related links</p> <p><b>DENR Data</b> – contains water resource and ecosystem data and information that DENR is providing</p>
Product Catalogue 2016.pdf	An inventory of DENR's natural resources digital data, printed maps and technical reports. It provides a comprehensive list of products organised into six themes: Fauna, Flora, Land, Water, Bushfires, Maps and Reports.
Spatial Data Links.pdf	DENR entire spatial data bundles, available for free download from the DENR File Transfer Server. Users can search for data by browsing the server or by using direct download links provided in this document. Each zipped bundle contains spatial data in an ESRI format (GDB and shape files), auxiliary data where relevant (for example LUT tables), metadata link, and available maps and reports in pdf format.

### 2\_WATER\_RESOURCE\_INFO

Aquifers	Aquifer data and information in the Northern Territory
Bores > Datasets	Bore dataset in the Northern Territory
Bores > Information	Bore dataset metadata
Hydrogeology_surveys	<p>Available hydrogeology surveys within the following basins:</p> <ul style="list-style-type: none"><li>• Amadeus</li><li>• Beetaloo</li><li>• Bonaparte</li><li>• Georgina</li><li>• McArthur</li><li>• Pedirka</li></ul>
SW_Discharge_GS > Datasets	Current operational gauging station data recordings within the Amadeus, Bonaparte, Georgina and McArthur basins.
SW_Discharge_GS > Information	Gauging station data recordings metadata

### 3\_ECOSYSTEM\_INFO

Species Atlas Fauna.zip	Dataset containing all bird, mammal, reptile and frog species records for the Northern Territory. The records include presence information, date, time, and location of sighting. As well as data collected by our scientists, this atlas includes information from museums, environmental consultants, naturalist, other researchers and historical accounts. New information is constantly added to the database and it contains over 1 million records.
Species Atlas Flora.zip	Dataset containing all plant records for the Northern Territory. The Flora Atlas is derived from all plant species records and their locations, contained within the Vegetation Site Database (VSD) and HOLTZE. The records include the species scientific and common name, recorded date, location of sighting, conservation status, introduced status and survey information. The Flora Atlas currently contains nearly 1 million plant records.
Species Atlas Sites Botanical Significance.zip	Areas that are considered to be important for plant conservation generally and specifically for conserving significant plant taxa. Sites are designated as either nationally significant (41 sites), bioregionally significant (79 sites) or of undetermined significance (33 sites). The criteria that were used to select the sites include: the conservation of plant biodiversity, including populations and species of plants, the genetic resources they harbour, the plant communities which they form and the range of ecological and evolutionary processes operating in the landscape.
Species Atlas Sites Conservation Significance.zip	This dataset identifies 67 sites of significance for biodiversity conservation in the Northern Territory, of which 42 considered of International Conservation Significance and 25 sites of National Conservation Significance. There are 29 sites in the Arid Centre, 12 in the Savannah Region, and 26 in the Top End.