Northern Territory Government
Department of Natural Resources, Environment and the Arts

MEDIA RELEASE

Leading Scientist to Conduct Research in central Australia

The arrival in central Australia this month of one of the world's leading scientists is set to bring about wide ranging benefits for the Territory.

Department of Natural Resources, Environment and the Arts land and water regional manager Graham Ride said Dr Mary Bourke's visit to central Australia from next week would help NRETA learn more about the Great Artesian Basin.

"Dr Bourke is an Irish research scientist with the United States' Planetary Science Institute in Tucson, Arizona, and has undertaken fieldwork in central Australia each year during the past decade," Mr Ride said.

"She has previously completed studies in central Australia for the Smithsonian Institute, Oxford University, NASA and other learned United States institutions."

The Simpson's Desert is the closest replica of what land is like on Mars and the Dalhouse springs look similar to features seen on Mars.

"Dr Bourke's task is to determine as closely as possible what the landscapes on Mars might be like, hence her interest in the evolution of the mound springs and associated deposits at Dalhousie," Mr Ride said.

"The study of the Simpson Desert helps understand how similar features seen on Mars may have been created."

Dr Bourke is also studying ancient flood events of the Finke River system and the formation of sand dunes in central Australia, comparing the dunes in the Northern Territory with the sand dunes that can be seen in the satellite images of Mars.

"Dr Bourke's work in the Finke river system and on the Dalhousie mound springs aligns with NRETA's need to better understand the relationship between recharge to the western fringe of the Great Artesian Basin from the Finke River, and corresponding discharge at Dalhousie Springs," Mr Ride said.

Dalhousie Springs lie on the western edge of the Simpsons Desert in Witjira National Park and are the largest natural surface expression of water in the Great Artesian Basin.

The Great Artesian Basin lies under parts of South Australia, Queensland, New South Wales and the Northern Territory.

The Great Artesian Basin covers about 1,711,000 square kilometres of Australia's land mass and 85,550 square kilometres in the NT.

There is about 450 million mega litres of water in the Great Artesian Basin within the NT, which equates to about 1000 Sydney Harbours of water or five per cent of the total resource.

Mr Ride said much would be gained by Dr Bourke's visit.

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“Dr Bourke’s understanding of the Simpsons Desert’s land formation and water channels directly relate to NRETA’s work programs,” Mr Ride said.

“The work programs are focused on landscape geomorphology with specific reference to pre-historic floods and pre-historic discharge from groundwater systems.

“The more we can understand about our ancient past the more we will be able to predict what might happen in the future.”

Dr Bourke is expected to arrive in Alice Springs on Monday, 5 June 2006.

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Media Note – For more information contact Graham Ride on 8951 9203

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