LEGISLATIVE ASSEMBLY OF THE NORTHERN TERRITORY

WRITTEN QUESTION NO. 105

REPLY TO MR GILES FROM MINISTER FOR ESSENTIAL SERVICES

In relation to the delivery of essential services in Northern Territory Growth Towns:

For each of the identified growth towns of Maningrida, Wadeye, Borroloola, Galiwinku, Nguiu, Gunbalanya, Milingimbu, Ngukurr, Numbulwar, Angurugu/Umbakumba, Gapuwiyak, Yuendumu, Yirrkala, Lajamanu, Daguragu/Kalkarindji, Ramingining, Hermannsburg, Papunya, Elliott and Ali Curung -

Question 1.

What planning has been put in place to answer the needs of the proposed growth towns in each of the following areas:

a) **Water supply**
b) **Waste water management (sewerage)**
c) **Energy supply**

Answer:

1(a) water supply

Power and Water has been working with the Department of Local Government and Housing (DLGH) and the Strategic Indigenous Housing and Infrastructure Program on the capacity assessment of water infrastructure in the SIHIP Communities and the Territory Growth Towns.

Water supply infrastructure assessments have been undertaken by the Alliance partners and their relevant engineering partner in Maningrida, Wadeye, Galiwinku, Nguiu, Gunbalanya, Angurugu, Umbakumba and Milyakburra.

For the remaining communities that SIHIP is proposing to implement housing (including Hermannsburg, Yuendumu, Gapuwiyak, Milingimbi, Yirrkala, Lajamanu, Ngukurr and Numbulwar) engineering consultants GHD and Aurecon are in the process of finalising condition assessment investigations of existing water supply infrastructure. The scope of work of this work includes;

- Condition assessment and needs identification
- Preliminary options identification and assessment
- Concept design, preliminary costing and risk assessment of preferred option

The design is based on population growth and condition assessment.

A high level hydrogeological study has been undertaken for all of the SIHIP communities and growth towns. For the initial packages the SIHIP Alliances will be undertaking drilling works and in the remaining SIHIP communities, drilling work will be contracted directly with a hydrogeological professional services company. The purpose of this is to finalise investigations and manage the construction of a groundwater drilling program.

Provisional scopes of work have been prepared to undertake the investigations necessary to complete the planning in these remaining Growth Towns.

Table 1: Matrix of Growth Towns and SIHIP communities

SIHIP communities	**Growth Towns**
	Ali Curung
Angurugu	Angurugu
	Borroloola
	Dagaragu/Kalkarindji
	Elliott
Galiwinku	Galiwinku
Gapuwiyak	Gapuwiyak
Gunbalanya	Gunbalanya
Hermannsburg	Hermannsburg
Lajamanu	Lajamanu
Maningrida	Maningrida
Millingimbi	Millingimbi
Milyakburra	
Nguiu	Nguiu
Ngukurr	Ngukurr
Numbulwar	Numbulwar
	Papunya
	Ramingining
Umbakumba	Umbakumba
Wadeye	Wadeye
Yirrkala	Yirrkala
Yuendumu	Yuendumu

1(b) waste water management (sewerage)

As a component of the Strategic Indigenous Housing and Infrastructure Program, planning studies of the wastewater infrastructure in 15 of the identified growth towns have been completed by alliance partners. These growth towns are Maningrida, Wadeye, Galiwinku, Nguiu, Gunbalanya, Milingimbi, Ngukurr, Numbulwar, Angurugu, Umbakumba, Gapuwiyak, Yuendumu, Yirrkala, Lajamanu, Ramingining and Hermannsburg.

The investigations have included:

- A review of the condition and the capacity of wastewater infrastructure which currently exists at each growth town, including sewerage reticulation, sewer pump stations, wastewater treatment plants and effluent disposal infrastructure;
- An assessment of the infrastructure risks at each growth town;
- Development of best-estimate growth projections for each growth town to 2030;
- Identification of infrastructure which has insufficient capacity to meet current requirements, or projected requirements to 2030; and
- Development of engineering options to meet current and projected future wastewater collection, treatment and disposal requirements in each growth town up to 2030.

The treatment and disposal of wastewater in all 20 identified growth towns will be managed according to the Wastewater Management Strategy, which is currently being developed by Power and Water. This strategy will outline the operating, maintenance and monitoring objectives for managing wastewater treatment and disposal in all 20 identified growth towns, and a further 46 remote Indigenous communities. The Wastewater Management Strategy will aim to provide an integrated approach to wastewater management with a focus on protecting public health, minimising environmental impact and ensuring sustainability of the entire water cycle from catchment to catchment.

Power and Water, on behalf of the NT Government, is currently retrofitting reticulated sewerage to the major residential and commercial areas of Borroloola. Part of these works include expansion of the wastewater treatment infrastructure (Sewerage Ponds and effluent disposal) and new collection and distribution network. Planning for these works has accommodated options for orderly expansion required for growth. Infrastructure upgrades required to facilitate Town Camps development forms part of the SIHIP program.

Currently Elliot is serviced by on-site treatment through individual septic tanks. The need to move to a reticulated sewerage network and centralised sewerage treatment forms part of the current risk assessment work on the borefield expansion plans.

1(c) energy supply

Power and Water has undertaken load forecasting for each of the Growth Towns taking into account the expected increase in demand associated with planned new infrastructure and services. Based on this forecasting, Power and Water has determined timing of new energy infrastructure upgrades, giving consideration to capacity requirements for the power stations and distribution networks.

Recent upgrades to Growth Town infrastructure have included expansion of power station buildings, increased generation capacity and fuel storage facilities and distribution augmentation. There is sufficient energy infrastructure capacity to meet load for the foreseeable future across all locations.

In addition to this targeted energy planning for the Growth Towns, Power and Water undertakes economic analysis annually to identify the most cost efficient future energy source option for each Growth Town and Indigenous community serviced by Power and Water. This analysis allows Power and Water to determine the energy source option that will provide necessary capacity and reliability requirements as well as enable new technologies to be evaluated as they emerge.

Question 2.

For each growth town:

a) **What is the currently available power generation capacity in MW?**
b) **What is the current water supply capacity in ML per day?**

Answer:

2(a) the currently available power generation capacity in MW:

TERRITORY 20 GROWTH TOWNS	Installed Generation Capacity (MW)
Borroloola	3.2
Elliott	1.7
Wadeye	4.0
Nguiu	4.9
Gunbalanya (Oenpelli) (L)	3.6
Galiwinku	3.6
Yuendumu (L)	2.6
Kalkarindji (L)	1.7
Gapuwiyak (L)	1.9

Hermannsburg (L)	1.2
Lajamanu (L)	1.9
Maningrida	4.8
Milingimbi (L)	2.4
Ngukurr (L)	3.4
Numbulwar (L)	1.6
Papunya (L)	1.1
Ramingining (L)	1.6
Umbakumba (L)	1.0
Yirrkala (L)	Grid connected
Ali Curung (L)	Grid connected
Angurugu (L)	Grid connected
Daguragu-	Grid connected
Total generation capacity Growth Towns	**46.2 MW**

2(b) the current water supply capacity in ML per day:

TERRITORY 20 GROWTH TOWNS	**Water Capacity ML/day**
Borroloola	2.6
Elliott	1.6
Wadeye	3.5
Nguiu	1.9
Gunbalanya (Oenpelli) (L)	1.2
Galiwinku	1.1
Yuendumu (L)	2.7
Kalkarindji (L) / Daguragu-	TBA
Gapuwiyak (L)	1.4
Hermannsburg (L)	1.0
Lajamanu (L)	3.3
Maningrida	2.5
Milingimbi (L)	1.5
Ngukurr (L)	2.5
Numbulwar (L)	1.2
Papunya (L)	TBA
Ramingining (L)	TBA
Umbakumba (L)	0.7
Angurugu	1.2
Yirrkala (L)	3.8
Ali Curung (L)	TBA