After a brief intermission the Ti Tree Water Advisory Committee Newsletter is back. The Ti Tree Water Advisory Committee is seven years old and there have been a lot of changes in that time and, as you will see in this edition, there are many more new and interesting developments on the way.

The Ti Tree Region Water Resource Strategy is four years old and is coming up for its first major review. The region has been growing steadily and groundwater allocations are approaching the sustainable yield of the regional aquifer.

The government is putting in some work on Groundwater Dependent Ecosystems (GDE’s) looking at the relationship between bloodwood trees and groundwater. Charles Darwin University researchers are looking at cultural values of water in the region and local growers have also been engaging with the local Anmatjere community. An article in the Centralian Advocate recently talked about the DPIFM Indigenous Horticultural Training Scheme.

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**ADVISORY COMMITTEE:**
Andrew O’Bree (Chair): Central growers
Peter McKeand: Western growers
Neil Feazey: Local community
Gary Dann: Pastoral (NTCA)
Allan Cooney: Aboriginal horticulture
David Alexander: Indigenous land management
Gavin Kahl: Grower (western zone)
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Prepared by Andrew O’Bree, Alan Cooney, Bob Millington, Dave Maynard & Mark Pierson for the Ti Tree Water Advisory Committee. Maps & data provided by the Department of Natural Resources, Environment & the Arts and the Department of Primary Industries, Fisheries & Mines.
**WAC CHAIRMAN’S REPORT**

On behalf of the Ti Tree Water Advisory Committee I would like to provide a brief overview outlining how well the Water Allocation Plan and the activities of the Ti Tree Water Advisory Committee are contributing to “maximising economic and social benefits within ecological restraints”.

The Ti Tree Region provides the Northern Territory with an incredible opportunity to expand economically and improve the social circumstance of the resident population. The Ti Tree Water Advisory Committee (TTWAC) takes its responsibilities seriously and is committed to the implementation of the Ti Tree Region Water Resource Strategy.

**Health of the Basin**

The maintenance of the health of the Ti Tree Basin remains the prime objective of the TTWAC and to that end we are grateful to the Department of Natural Resources, Environment and the Arts (NRETA) for contributing its annual Health of the Basin Report for our consideration.

The Health of the Basin Report states that water quality trends in Central Zone have remained relatively constant. However the Ti Tree Farms area in the Western Zone shows the influence of the poorer quality water to the south and should be monitored. Regular sampling (quarterly) for groundwater electrical conductivity is included on the monitoring form but response has been haphazard.

The TTWAC is stressing the importance of water quality sampling so that the matter will be better coordinated. From a production point of view growers must be aware of any change so that timely action can be taken. The current variability may be due to prolonged dry conditions and no recharge. A much improved monitoring regime will be able to find out if this is or is not true.

The TTWAC provided 10 responses to the Groundwater Training questionnaire on what producers in the basin thought was needed in training courses. Irrigation Design came out as the subject most requested for training and a handbook was thought to be the most popular way to circulate this information. The TTWAC will continue to work on producing materials like this for the borefield management manuals. July to September was nominated as the best time for workshops and that these should be not technically advanced. TTWAC will act accordingly.

The TTWAC considered a report by Vlad Kawaljenko, principal chemist DPIF&M, on pollution vulnerability assessment of termidor and nemacur chemigation. This report did not clearly answer all the queries of import put by the TTWAC, such as if one drinks the contaminated water, at what point is it or is it not dangerous to human health and if the chemical does get into the groundwater how long does it take to decompose. Although the Kawaljenko report did imply that if these chemicals were used as label / permit defined then the aquifer would not be at risk. Some issues of the efficiency of non-return valves as a protection were noted. The TTWAC was advised that funding would be sought for a comprehensive pollution risk analysis for the Ti Tree Basin.

**Metering and Monitoring**

It appears that the only meter calibrations that have ever been done have been when the bore is set up. The TTWAC agrees that meter calibration should be done periodically, say every two years. The accuracy of a meter must be within +/- 5% to be effective.

The satisfactory performance of meters and the reporting of accurate water use by licence holders are not only a requirement of groundwater extraction licences but an essential tool in efficient water resource and farm-scale management. It was hoped funding through the community water grants would give WAC the resources to review standards and develop better processes.
The Department of Primary Industry, Fisheries and Mines continue to supply the TTWAC with quarterly estimates of water usage by crop type. It was noted that there is a difference of requirements by crops of different ages. With all of the crop pulling and replanting over the past few years the position has been constantly changing. A record of the situation will be passed on to the TTWAC for inclusion in the annual industry status report, required by the regional strategy.

DPIFM continue to monitor farm management issues in the area, especially the fruit fly outbreak, facing the grape growers of the Ti Tree region. DPIFM reported that they will continue to collect evaporation data and produce information sheets. Andrew Nesbitt advised technical reports are in preparation – one will show from graph information the best irrigation practices.

The TTWAC supported an application to the National Water Commission for $50,000 in community water grant funding that would address some of these matters and, even though this application was ultimately unsuccessful, these issues require constant assessment by the TTWAC. The TTWAC will continue to pursue funding opportunities through the National Water Commission.

**Environmental and Cultural Issues**

Environmental impacts are considered as part of the Ti Tree Region Water Resource Strategy. The TTWAC considered the fate of a locally endemic species of Ipomea. A small community of this plant, which is classified as vulnerable to extinction, is located in areas adjacent to the discharge from the Ti Tree Basin. Research is being done on this species and the TTWAC has requested to be kept informed. A report from Angus Duguid on the Ipomea at Stirling Swamp was considered by the TTWAC.

Researchers from Charles Darwin University provided the TTWAC with some interesting insights into the aspirations of Indigenous communities to get involved in water resource management. The team is working with Anmatjere men and women on a three year federally-funded research and capacity building project in the Ti Tree Basin. The CDU project, which is called “Recognition of Indigenous Rights to Water and Cultural Value in the Northern Territory” should provide input into the cultural and environmental components of the Ti Tree Region Water Resource Strategy.

**Employment and Economic Activity**

The Anmatjere horticulture training group had a vigorous year with industry taking a keen interest. The big issue that is taking considerable time and effort to resolve remains encouraging work ethic and commitment. To answer this DPIF&M have set up a training program at the Ti Tree Research Farm to prepare the people for mainstream employment. For this to work leaders from within the Anmatjere community must be found to set example and take a mentoring role. Anmatjere Council continues to be represented by its CEO, Neil Feazey. Anmatjere Council are improving the capacity of its workers to move into water management and horticulture as it strives to implement new Federal Government workplace initiatives.

Centrefarm has been ably represented on the TTWAC by its General Manager, Allan Cooney. Centrefarm has been very active in the Ti Tree area and has identified six sites within the Ti Tree Water Control District for future horticultural development once native title and funding issues are resolved. Centrefarm recently submitted a $35 million grant application to the National Water Commission for Watersmart funding and NRETA Land and Water Division is assisting with ongoing resource investigations. Centrefarm is also looking to employ a training officer for the Central Australian region. Allan advised he planned to convene the dormant Aboriginal Horticulture Working group.

**Conclusion**

The TTWAC acknowledges the changes that have been made within government to progress the issue of water resource management in line with the National Water Initiative, first with the change to NRETA and now with the advent of the Water Management Branch.

I would like to conclude with a big thank you to Bob Millington, our inaugural Executive Officer, who retired at the end of 2005-06. Bob’s effort over the years has been remarkable and the challenge for the TTWAC will be to cover his absence while we recruit another person into that position.

I am hoping that this satisfies the annual reporting requirement and that you are satisfied with our progress on important issues as we continue to work closely with NRETA on the implementation plan for the Ti Tree Region Water Resource Strategy and look forward to the first five-year review in 2007.
In October 2005 the NT Department of Infrastructure, Planning and Environment was split into the Department of Planning and Infrastructure (DPI) and the Department of Natural Resources, Environment and the Arts (NRETA).

In June 2006 the NT Government, in keeping with the National Water Initiative, took the view that water is critical to the sustainable development of the Territory and formed a new Water Management Branch.

Ti Tree is the first Water Control District in the NT to have a Water Resource Strategy. The NT Government is about to endorse a Water Resource Strategy for Alice Springs and is developing a Water Resource Strategy for the Darwin Rural and Daly River regions.

The newly formed Water Management Branch sits within the Natural Resource Management (NRM) Division of NRETA and has close links with the old Natural Systems, now Land and Water Division of NRETA and the Lands and Planning Division of DPI. Mark Pierson is the new Water Resource Planner for Ti Tree. Mark has experience in science, social science, environmental management, urban and regional planning, native title as well as finance and administration.

The diagram below shows how the Water Management Branch interacts with the Ti Tree Water Advisory Committee through the Controller of Water Resources. The Controller of Water Resources remains a special function under the current legislation and is informed by scientific research, community consultation and government policy, so as to make informed water resource allocation decisions. John Childs (above) is the Controller of Water Resources for Ti Tree.
**Health of the Basin Report Summary Statement**

This is a summary of the 2005-06 Health of the Basin Report prepared by NRETA Land and Water Division. The behaviour of groundwater in the Ti Tree Basin can be summarised as follows:

*The Ti Tree Basin is performing more or less as expected; regionally the basin demonstrates relatively static to slightly declining water levels due to natural recession. Locally the water levels have decreased in the vicinity of pumping activities. In the Ti Tree Farms area this decline has been slightly higher than the anticipated rates as determined from groundwater modelling.*

Groundwater Behaviour of the Ti Tree Borefields

To demonstrate the behaviour of the two main borefields in the Ti Tree Basin, a cross-section has been prepared to show the top of the main aquifer, and the decrease in the groundwater level from 2003 to 2006. Figure 1 is a cross-section between the Ti Tree Farms and Table Grape Growers of Australia of the water levels over the past 3 years and the average elevation of the top of the high permeability aquifer.

![Figure 1](image.png)

**Figure 1** Cross-section through Ti Tree Basin from the Ti Tree Farms to Table Grape Growers of Australia demonstrating water level changes from 2003 to 2006 and typical high permeability aquifer zone.

The top of the highly permeable aquifer, and the optimal location of the top of the screens, is considered to be approximately 520 mAHG. This means that generally the available drawdown is approximately 19, 23 and 20 metres at the Ti Tree Farms, Table Grape Growers of Australia and the Ti Tree Farm East respectively.
Water Levels

Standing water levels were measured in May 2005 and May 2006. The distribution of groundwater levels are presented in Figure 2. An obvious feature of the contour map is the distinct “bulls eye” centred on the Ti Tree Farms area and the Table Grape Growers of Australia due to drawdown from the extraction bores.

Regionally the Ti Tree groundwater basin exhibits a state of relatively static to slightly declining water levels. This is to be expected as throughflow to the Northern Zone and discharge from pumping exceed inputs/recharge, which have been minimal in recent years. The groundwater levels in the borefields show much greater decline than the regional decline. There is approximately 20 metres available drawdown at each of the borefields in the Ti Tree Basin.

Assessment of Groundwater Modelling Predictions

Groundwater levels in recent years show that the groundwater modelling completed in 2002 has underestimated the effects of pumping in the Ti Tree Farms area. Detailed analysis shows that the decline in the modelled water levels are underestimated compared to the decline in the observed water levels, even though the annual rate of pumping is only 67% of the 2000 ML/yr used in the modelling. The deviation of the modelled response from the observed is not so great as to totally discount the near future predictions about the borefield performance, although, the groundwater model should be revised to address this issue.
Comparison of the 2001 modelling to the current response to extraction in the Ti-Tree Farms area (Figure 3) indicates the conceptual model is still valid although it should be noted that the response from the “no recharge” scenario underestimates the observed response. The conceptual model for the area is still considered valid although recalibration using lower transmissivity values should be considered. Rates of decline in the borefield estimated by groundwater modelling indicate that the current water allocation regime from a borefield perspective is sustainable in the medium term.

![Modelled vs Observed Water Levels](image)

**Figure 3:** Predicted vs observed water levels to March 2006 in the vicinity of Ti Tree Farms

**Water Quality**

Water quality trends in the Central Zone have remained relatively constant, and the distribution of water quality (determined by groundwater EC) suggests that the water quality is unlikely to deteriorate. The Ti Tree Farms area in the Western Allocation Zone on the other hand shows the influence of the poorer quality water to the south of the Ti Tree Farms area. Water quality testing should also be conducted especially where water is to be used for human consumption. Electrical conductivity of irrigation water should be measured to identify changes which may have impacts on crop yields.

Assessment of water quality changes have been made based on measurements conducted at bores in the NRETA regional monitoring network. It should be noted that more diagnostic and representative assessment of water quality changes at each of the respective borefields can be made based on water sampling from production bores.
Ti Tree Farms

Electrical conductivity readings to the south of the Ti Tree Farms borefield at RN16705 and to the north of the borefield at RN14098 show a slight decrease although they are only small changes in comparison with data from previous years (Figure 4).

![Figure 4](image)

**Figure 4**  
Trends in electrical conductivity in western zone bores

Central Zone

Electrical conductivity readings in the Central Zone indicate that the borefield is unlikely to be affected by salinity increases. Ti Tree Farms East at RN012156 indicates that water quality is improving with a general decreasing trend in EC from approximately 1000 µS/cm to 650 µS/cm (640 mg/l to 420 mg/l). Water quality at the Territory Grape Growers of Australia represented by RN13929 indicates a relatively constant EC of approximately 1000 µS/cm (~ 640 mg/l).

Pmara Jutunta & Pmara Jutunta North

Extraction from the Pmara Jutunta borefield has essentially been abandoned and extraction is now from the Pmara Jutunta North borefield which was commissioned in 2005. No water levels or water quality data are available from the monitoring bores in the vicinity of the Pmara Jutunta North borefield.

Conclusions and Implications for Licensees and other Stakeholders

The groundwater levels in the Ti Tree Basin indicate that current borefield practices have had a minimal effect on the regional groundwater level. Locally, however, groundwater levels show much greater decline, although roughly at rates predicted by modelling results, which, indicate the current water allocation regime from a borefield perspective is sustainable.

Monitoring of groundwater levels and groundwater modelling are considered to be the most effective borefield management tools. Water quality testing should also be conducted especially where water is to be used for human consumption. Electrical conductivity of irrigation water should be measured to identify possible changes which may impact crop yields.

It is recommended that future production bores be constructed with the top of the screened interval located at or below an elevation of 520 metres above Australian Height Datum to prevent pumps from running dry.
At the 27\textsuperscript{th} meeting of the Ti Tree Water Advisory Committee (WAC) (18/8/05), the annual "Health of the Basin Report" was considered. This report demonstrated that the drawdowns in the ‘Farms Area’ are exceeding the predictions for the amount of water being used. The possibility that water meters may be inaccurate may well be one of the causes for this situation. It was decided by the committee that water meters should be required to demonstrate their accuracy as per the licence agreements issued by the Department of Natural Resources, Environment and the Arts (NRETA).

The growers applied for a Community Water Grant through the National Water Commission but were unsuccessful. A new funding round has just opened up with the emphasis on raising national water standards so there may be an opportunity for the WAC to apply for some more money for a pilot program looking at metering.

Meanwhile, a letter has been sent to all licensees in the Ti Tree Growers area indicating the requirement for calibration.

During the 28\textsuperscript{th} meeting of the Ti Tree WAC (17/11/05) it was decided that some options be investigated by NRETA in regards to the calibration of water meters.

Method of investigation:
To determine the options available for the Ti Tree WAC to periodically calibrate water meters licensed to extract groundwater for the purpose of irrigation in the area, the following points had to be considered:
- Approximately 40 meters requiring calibration;
- Isolation from capital cities and laboratories;
- Annual or biennial calibration inspection regime;
- 8 different growers with different meter types and water delivery configurations; and
- Economic rationalisation.

A great deal of literature was investigated including the ‘Know the Flow’ reports produced by the Australian representative body of the International Commission on Irrigation and Drainage (ANCID) (see: http://www.ancid.org.au/); Flowmeter Training Manual and Review of Australian Irrigation Meter Testing Requirements and Capabilities; AS/NZ Standards. A number of meter distributors were consulted including ‘Watershed’ in Alice Springs as well as online meter manufacturers representatives.

Results:
Four options were identified as potential avenues for the Ti Tree WAC to pursue in order to realise their groundwater extraction licence conditions of meter calibration:
1. Periodically remove meters and send to Adelaide or Darwin for calibration
2. NRETA / WAC to purchase (and train officer) with portable electromagnetic flowmeter for periodic compliance / calibration checks
3. NRETA / WAC to contract a company to carry out periodic compliance / calibration checks using laboratory tested electromagnetic flowmeter from a NATA accredited laboratory
4. Growers to install electromagnetic flowmeters with inbuilt calibration verification systems which can be checked by an authorised officer with laptop and software
At the 30th meeting of the Ti Tree WAC (18/5/06) NRETA circulated information on an Ultrasonic Flowmeter to members. NRETA was offered a one-month free trial of this non-intrusive device for calibrating meters. The new Chairman offered to organise or otherwise assist at the local level. NRETA was requested to facilitate access to the equipment and the following motion was put:

“The Ti Tree Water Advisory Committee requests that John Childs as a matter of urgency assess the efficiency of and initiate a trial of the Prosol Flowmeter including the calibration test of production bores in the Ti Tree/Pine Hill Area and at the Rocky Hill Grape Farm.”

The new Water Resource Planner travelled to Ti Tree in June for a series of field trials with the Prosol Ultrasonic Flowmeter. This particular ultrasonic flow device has been measured in the lab under ideal conditions to an accuracy of within 0.5% however conditions are less than ideal in the field. It was found that the reliability of data captured in the field depended on technique and timing and that some training would be necessary to improve accuracy and consistency of readings.

All ultrasonic devices require accurate input of a number of starting parameters, of which pipe thickness is one. It was found that pipe scale/rust/pitting had the potential to influence readings. However pipe length is probably the most important issue. The problem is that the variability in borehead configuration means that true laminar flow is not always apparent.

Turbulence in the pipe has the potential to dramatically influence readings and it can't be tested ultrasonically, so the rule of thumb is that any metering device requires 10 x pipe diameter lengths before the meter and 5 x pipe diameter lengths after the meter. This could be one reason why the installed meters are not as accurate as they otherwise might be – check your installation instructions for the manufacturer's recommendation.

John Childs is working on developing National Standards for metering which include things like borehead configuration and a pilot program in the Ti Tree region could form the basis of another grant application to the National Water Commission.

In Western Australia they have their own pilot program for precisely this purpose. They spent $20,000 on a ‘highly accurate’ GC Ultrasonic flow meter (Prosol device only costs $3,000 + $3,000 for data logger and remote telemetry) and encountered the same sorts of problems in the field. Results at this early stage in their trial suggest that the GC Ultrasonic is usefully applied in determining a general level of accuracy in installed meters but correct installation, regular maintenance and calibration of installed meters at a NATA accredited testing facility is still the best option for accurate and consistent readings over long periods of time.

**Conclusion:**

It will be a decision of the Ti Tree WAC to conclude which option for future calibration of Ti Tree meters is the most appropriate to their needs. Each option has advantages and the overall goal of sustainable use of the water resource in the Ti Tree Basin needs to be kept at the fore. A decision will need to be made whether or not to purchase the Prosol Ultrasonic Flowmeter in the near future.
What are Chemigation and Fertigation?
Chemigation and Fertigation are very similar processes. Chemigation involves the release of chemical classes such as herbicides, insecticides and fungicides through injectors or siphoned into irrigation and water reticulation systems to assist in keeping weeds and pests at bay. Fertigation is the application of plant nutrients, such as liquid fertilisers and soluble fertilisers, through an automatic irrigation or reticulation system.

How do these systems operate?
Injectors are used to apply the desired substances into irrigation lines for distribution on crops. There are two main types of injectors used in the Fertigation process. The Venturi Injector is a device which creates a vacuum when water flows through it and the vacuum from the venturi sucks fertiliser or chemical into the irrigation line. The Reciprocating Pump Injection is used to pump fertiliser and chemicals from feed tanks into the irrigation line. Injectors of this type use either a stroking piston or flexing diaphragm in combination with check valves to inject a pulsating stream of liquid.

There are two main types of pumping required in the processes of injecting fertilisers and chemicals into irrigation lines. Some systems are powered through an external power source (usually electricity or engine powered), allowing the injector to run without reducing flow or pressure in the irrigation line. Some injectors are also water driven, meaning they are driven by the flow or pressure of the main irrigation pipeline. Most venturi and reciprocating pump injections systems are water driven.
How do these systems interfere with water quality?
Systems of this nature directly linked to a water source such as a bore or well have the ability, if not constructed or maintained properly, to directly contaminate groundwater and surface water supplies through the backflow, injection or siphonage of fertilisers and chemicals through the main bore lines into the groundwater system. Backflow occurs when hydraulic conditions within the system may deviate from ‘normal’ conditions causing water to flow in the opposite direction. Injection occurs when there is a failure of one or more of the barriers put in place as part of the operating system. Back siphonage is caused by mainline pumping failures or drafting due to high demands placed on the system or faulty pumps.

In the NT, pollution of groundwater and surface water is an offence under the Water Act 1992 and the Waste Management and Pollution Control Act 1998 and can incur a maximum fine ranging from $25,000 for an individual and $250,000 for corporations. It is important that if you are aware of actual or potential contamination to ground water or surface water supplies in your area that you to report it to your nearest regional branch. Contamination may not only affect the quality of your drinking water but your neighbours as well.

How can we ensure that we are not contaminating our water supplies?
There is a simple way of ensuring backflow does not occur in your system by installing and maintaining backflow prevention devices to protect your Chemigation and Fertigation systems. There are a range of backflow valves available and it is important that you choose the right type and amount of check valves for your Fertigation system. It is also recommended that you receive advice and assistance when installing or replacing systems of this nature by a certified plumber or system retailer.

Potential for contamination in equipped and unequipped systems

Example of a Reduced Pressure Zone Device used for backflow prevention in Chemigation/Fertigation systems
ENVIRONMENTAL GUIDELINES FOR HORTICULTURE

The Australian Government recently announced the Guidelines for Environmental Assurance in Australian Horticulture. Australia’s horticulture producers now have a set of national guidelines to help maintain profitability by introducing sound environmental and natural resource management practices. The guidelines explain how to tackle environmental assurance in eight key management areas — land and soil, water, nutrients, biodiversity, air, noise, waste and energy and assure our producers that they are running sustainable enterprises. They will make a significant contribution to the Australian environment and the profitability of our horticulture industries and domestic and overseas consumers will know they are buying clean-and-green produce. Copies of the Guidelines for Environmental Assurance in Australian Horticulture are available by calling (02) 8295 2300, fax Alison Turnbull at Horticulture Australia Ltd on (02) 8295 2399, or email horticulturefortomorrow@horticulture.com.au. Further information can be accessed at www.horticulturefortomorrow.com.au.

HORTICULTURAL PROJECT OFFICER

The Department of Primary Industry, Fisheries and Mines have recently appointed a new Horticultural Project Officer based in Alice Springs. Dave Maynard joins the team at AZRI and will be working closely with Centrefarm and the Alice Springs Water Reuse Project. Originally from Sydney, Dave has been in Alice Springs for 12 months and has a background in plant ecology and natural resource management. He will be involved in the development of best practice guidelines and environmental management plans for a range of horticultural projects. Dave is available for consultation and is keen to hear of issues or suggestions for improvement in horticulture in the region. He can be contacted on (08) 89518158.
PROFILE: CENTREFARM

Centrefarm Aboriginal Horticulture Limited was established by the Central Land Council to develop commercial horticulture on Aboriginal owned land. The charter is to create a viable industry on Aboriginal land that brings Aboriginal people economic equity and social opportunity. This is done by developing and managing sustainable horticultural resources on Aboriginal land whilst maintaining equity in the Aboriginal resource and attracting substantial commercial investment, enabling significant employment and social opportunity, and thus creating a regional rural economy. The approach is focused on the Aboriginal owners of Northern Territory (NT) land and Aboriginals living in each development area gaining economic benefit from their land.

The Centrefarm charter to develop the horticulture quality ground water resources on Aboriginal land of Central Australia is based on long term sustainable principles. Centrefarm allocates resources in the startup stages of the project to establishing a group involving NT Government Agencies and institutions as well as other stakeholders to establish a methodology to progress development of the model.

Since the establishment of Centrefarm it has become abundantly clear that two major stumbling blocks remain before Aboriginal people can begin on a reasonably level playing field. Those are access to the land and access to the water. Given that the two issues can be resolved, the endeavour to establish a regional economy is achievable.

The land access dilemma is substantially resolved. Centrefarm’s strategy is to make areas within inalienable Aboriginal freehold land available for development of commercial scale horticulture. The approach is innovative in that it provides a mechanism for each stakeholder to benefit and minimises business risks to the Aboriginal owners and to the investment Government provides by way of base infrastructure.

Centrefarm is in the early stages of developing horticulture projects on Aboriginal land thus creating a new regional rural economy in Central Australia - this is currently 23 project sites with potential to irrigate about 3500 ha. This reflects Aboriginal land owner aspirations to create a horticulture industry on Aboriginal land to bring economic development to their remote region and provide significant employment and enterprise opportunities. This level of development has the prospect of directly providing about 700 jobs to indigenous people of the region and many more multiplier jobs and small business opportunities. Investigations undertaken by NT Government agencies over a number of years confirm that suitable land and sustainable water resources are available to meet the needs of this project.

The immediate Centrefarm priority is to develop the resources available on Aboriginal lands to the extent they are available and quantifiable. Available means that the land is annexed from the land trust and through a legal process is available for economic development on demand and quantifiable means the resources are measurably adequate and proven for that development. Whilst this process is well underway there is a considerable gap between being identified, made available and being useable. To be useable the water needs to be able to be delivered from the groundwater aquifers to the development sites.

The Australian Government Water Fund is a $2 billion investment in water solutions for current and future generations. The Fund is a major investment by the Australian Government in water infrastructure, improved water management, and better practices in the stewardship of Australia’s scarce water resources.

Centrefarm has proposed to the Water Smart Australia programme that a funding package to develop this infrastructure will bring real long term benefits to this region. The proposal is to develop the primary infrastructure required to deliver water that enables the development of a viable sustainable rural economy based on high value irrigated production at 23 project sites. The proposal is for assistance from NWI to establish commercial bore fields on 17 identified development sites on Land trust land to make the water commercially available thereby advancing this work in indigenous economic development in Central Australia. This application is for approximately $34 million and will expect to attract another $50 million in infrastructure investment followed by another $50 million in direct farming investment over the next ten years as per the Centrefarm Strategy. While the benefits of this project will not be realised overnight, it will establish a rural regional economy that will provide employment, training and associated social and cultural benefits long term.