

September, 2015

Gascoyne Food Bowl Initiative

Growing the Carnarvon Horticultural Precinct

Newsletter of the Department of Agriculture and Food, Western Australia (DAFWA).

The \$25 million Gascoyne Food Bowl initiative is made possible by the State Government's Royalties for Regions program.



Welcome to the September edition of the Gascoyne Food Bowl Initiative (GFB) newsletter. Highlights of this edition include:

- An update on the drilling program
- First sand spear is installed
- Electrification and pipeline progress
- An update on the land expansion process
- Next Steps

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Drilling program



The Department of Agriculture and Food Western Australia (DAFWA) was tasked in 2012 with extending the northern borefield to make available an additional 4GL/year of groundwater to support an expansion of approximately 400 hectares of farmland.

This drilling program has now been completed, ahead of time and within budget.

The program started in September 2014 and was completed in May 2015 with 120 exploration and 35 production bores being drilled in the northern borefield – within three focus areas:

- (i) Expansion area – where 35 production bores have now been installed
- (ii) Eastern area - to forecast **future** water supplies
- (iii) Infill of the current Gascoyne Water Cooperative (GWC) borefield - to assist in drought conditions prior to river flow and Cyclone Olwyn

The test pumping of production bores has confirmed that a majority of the 35 bores have above average yields compared to existing bores in the area and the borefield has the capacity to deliver 4GL/year.

DAFWA has commenced the last stage of the water development program and commissioned a modelling study of the groundwater resource to test the aquifer's capacity to sustainably deliver this water. The updated aquifer model and results of analysis will be given to the Department of Water to assist with the water licensing process.

The model results will be reviewed towards the end of 2015.

First sand spear is installed



Under the Top Water Optimisation program, the first sand spear (to pump water from the sands of the river bed after a flow event) has been installed with another five possible sites identified. This program is aimed at optimising the use of the water resource by further reducing the draw from the aquifer during and post river flow events.

Electrification

In November 2014, the Stage 1 section of the power line was completed. This 22 000 Volt (high voltage) line was built by Horizon Power from McGlades Road to the end of the current GWC borefield. The line provides the opportunity for growers and GWC to reduce the cost of pumping water and increase the operating efficiency of the borefield.

The Stage 2 power line will extend from the 11.5km point to approximately 24km at the proposed end of the production bore and pipeline program. Planning for the Stage 2 power line design is underway and construction is anticipated to commence in October 2015.

Power supplied by Horizon Power is sourced from the 18 MW Mungullah Power Station. In the longer term, Horizon is also considering solar fields to provide power to the GFB borefield and similar projects.

Pipeline

Planning for the pipeline started prior to initiation of the replacement of the out-dated asbestos/cement pipe during the Gascoyne Irrigation Pipeline Project (GIPP). Reports identified that High Density Polyethylene pipe (HDPE) connected to the new GIPP 900mm supply main at McGlades Road would provide optimum pressure and serviceability.

The preliminary design for the proposed GFB pipe was based on a borefield of approximately 33km in length (McGlades Road to just west of Rocky Pool), an average flow of 10L/second per bore, and a peak flow of 20L/sec per kilometre of river frontage.

The GFB collector main will be capable of delivering 400L/second peak instantaneous flow.

Land Expansion

The GFB initiative will see 400 hectares of additional land and infrastructure for horticulture development released to the market. During 2013/2014, DAFWA undertook rigorous processes to identify suitable parcels of unconstrained land for future release. This included:

- an airborne electromagnetic survey (AEM) and analysis of soil quality and salinity risk
- land based soil surveys
- revised floodway modelling
- land use constraints mapping
- flora surveys

As a result of this work, approximately 600 hectares of high to moderate capability land has been identified for potential annual and perennial horticulture. From this it is expected that about 400 hectares will ultimately be released to the market, with the scale of the land release being closely tied to confirmation of, and access to, the groundwater resource.

During 2015, the focus to progress the GFB new land expansion will be land tenure change and land use planning. There are several types of existing land tenure covering the proposed new land release areas. Tenure change from Unallocated Crown Land and Pastoral Lease to special lease and freehold will be facilitated before the land can be made available to the market. Importantly, the majority of land also requires Native Title negotiations to be completed.

Town Planning consultants Urbis have recently been commissioned by DAFWA to undertake the necessary technical and land use planning studies required to incorporate the new land into the Shire of Carnarvon's Town Planning Scheme 10 and Region Scheme 11. Part of this work will be a formal advertising of the new land plans for public comment by the Shire. This is expected to occur late 2015 and the overall land use planning process will take approximately one year.

Finally, it is anticipated that an 'Expression of Interest' (Eoi) competitive process will be the mechanism by which interested parties will be able to submit proposals to enter into a lease for the new land. An Eoi would typically address a number of matters including financial capacity, project proposal, access, land management and water supply and would be assessed by a GFB Eoi evaluation panel. This could occur as early as 2016; however this is dependent on the land use planning, land tenure and Native Title processes proceeding in a timely manner.

Next Steps



The next steps you can look forward to seeing are:

- Drilling results to be reviewed
- Further sand spears to be installed
- The land use planning and tenure change process to continue to progress
- Eol process for interested parties to submit proposals to enter into a lease for the new land, eta 2016
- More regular information will be available on the Department of Agriculture and Food, Western Australia Facebook site.

<https://www.facebook.com/DepartmentofAgricultureandFoodWA>

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