Progress update on Carnarvon Ministerial Advisory Committee

Final Report Recommendations July to December 2015



Carnarvon Ministerial Advisory Committee Progress Update on Report Recommendations – July to December 2015

CARNARVON MINISTERIAL ADVISORY COMMITTEE FINAL REPORT RECOMMENDATION

THEME 1: Upgraded and integrated water supply systems

Optimising and improving the equity and reliability of the irrigated water supply to the Carnarvon horticultural district requires infrastructure upgrades and integration of the whole irrigation water supply system.

Recommendation 1 – Equity of Supply (p17)

Responsible Organisation: Gascoyne Water

Carnarvon Ministerial Advisory Committee recommends the definition of 'equity of supply' be adopted to facilitate the development of service level agreements with growers and the design and installation of infrastructure necessary to support this outcome – particularly during periods of peak demand.

Progress Report: Initiated

The Gascoyne Water Cooperative fully supports and endorses the principle of equity of supply. However it proposes to implement it in a manner that is more flexible than that proposed by Carnarvon Ministerial Advisory Committee. The Carnarvon Ministerial Advisory Committee recommendation relied largely on flow control at growers' off-takes to achieve equity of supply (and particularly ensure supply to growers at the eastern end of the distribution system). The Gascoyne Water Cooperative is of the view that the Carnarvon Ministerial Advisory Committee recommendation is too restrictive and would inhibit activities such as water trading (a matter that the Gascoyne Water Cooperative will actively encourage) as well as limit the capacity of the Gascoyne Water Cooperative to deliver water to growers when they have specific periods of high demand and water is available.

The Gascoyne Water Cooperative will endeavor to provide all growers with *as high* a level of service as it is able using a number of mutually supportive management techniques, including:

- flow control valves at growers' off-takes, but with flow controllers set at levels that may be considered more generous than proposed by Carnarvon Ministerial Advisory Committee.
- demand management, by developing watering plans in consultation with growers, and
- requirement for a minimum of 24 hours of on-farm storage to be part of the Service Agreement with growers.

This combination of management techniques was proposed by the GHD consultants in the initial stages of the Carnarvon Ministerial Advisory Committee investigations.

At that time Gascoyne Water Cooperative was not in a position to implement demand-management effectively nor specify the requirement for 24 hour on-farm storage in its Service Agreement with growers. Therefore flow control valves became the

CARNARVON MINISTERIAL ADVISORY COMMITTEE FINAL REPORT RECOMMENDATION		
	Carnarvon Ministerial Advisory Committee recommendation.	
	The Gascoyne Water Cooperative recognises that to achieve the above amended equity of supply definition will require a sound operating strategy and reliable and well maintained infrastructure.	
Recommendation 3.1 –	Progress Report: Well Progressed	
Gascoyne Water Cooperative Infrastructure	Air Bleed Valves	
(p19)	The Gascoyne Water Cooperative is currently in the process of	
Responsible Organisation: Gascoyne Water Carnarvon Ministerial	replacing seals and fully refurbishing and reintroducing air bleed valves to all member services. Of the 185 current member services approximately 155 valves still need to be installed. The work will be completed by the end of March 2016.	
Advisory Committee		
recommends that the	Isolation valves	
following improvements to the existing system owned and operated by Gascoyne Water Assets Management Cooperative / Gascoyne Water Cooperative be implemented:	The Gascoyne Water Cooperative is reviewing the requirement for and potential location of isolation valves as part of developing risk management plans throughout the distribution system. The risk plan will consider the volume of water required to be evacuated to affect a repair, the inconvenience caused by a disruption of supply in a section, the time taken for a repair and the cost of installing additional isolation valves.	
The existing distribution irrigation pipeline, also referred to as the Gascoyne Irrigation Pipeline, requires additional air bleed valves and section valves to be installed to allow sections of the irrigation pipeline to	An objective of the management plan being developed by the Gascoyne Water Cooperative is to ensure repairs to the main can be completed within 24 hours. An initial assessment indicates that the longest section of main is 5.7 kilometres, has 36 members' off-takes and contains up to 1100 kilolitres of water. The Gascoyne Water Cooperative estimates that if a leak occurred, a full repair could be affected within 24 hours. Consequently this initial risk assessment indicates minimum disruption to growers particularly if they have the equivalent of 24 hours storage without the need for installation of additional isolation valves.	
be serviced without	Supervisory Control and Data Acquisition	
shutting down and bleeding the entire pipeline.	Installation and commission of telemetry to all 10 production bores in the northern borefield was completed in October 2015 and has performed well.	
	The northern borefield Supervisory Control and Data Acquisition was not configured to harmonize with the Water Corporation southern borefield with the Gascoyne Water Cooperative running the northern borefield at lower pressures (and lower energy costs).	
 Repair and enhancement to Supervisory Control and Data Acquisition telemetry systems to ensure full and stable operation and integration of the northern 	Member services Supervisory Control and Data Acquisition was re- commissioned in early November 2015 and is also used to monitor volumes and flows within the distribution main. The final Supervisory Control and Data Acquisition calibration to enable automatic meter reading will be undertaken when instrumentation destroyed by a cyclone is reinstalled by July 2016.	
borefield into the overall	Flow Meters	
system.	There are some technical issues concerning pipeline flow meter performance. The Gascoyne Water Cooperative is in negotiations	

with the supplier Bermad Technologies to rectify this.

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	Development of Gascoyne Water northern borefield
 Installation of additional production bores in the existing Gascoyne Water Cooperative northern borefield is required to bring peak flow up to 	The Gascoyne Water Cooperative northern borefield currently has a peak capacity of 128 litres per second from 10 production bores, including bore B11/13. The Gascoyne Water Cooperative plans to equip three extra boreholes, known as the infill bores, and bring these into production by October 2016 to provide an additional approximately 30 litres per second, taking capacity up to 158 litres per second.
183 litres per second including bores for stand-by. This will allow abstraction of the full licence volume of 3.6 gigalitres per year and will increase peaking capacity to a factor of	The Gascoyne Water Cooperative is in the process of accessing the previous Water Corporation site in the river known as GP1. Initially this will be for a sand spear but based on the history of this site, Gascoyne Water Cooperative is optimistic an application for a production bore licence will also be granted. Gascoyne Water Cooperative would expect a sand spear capacity of approximately 60 litres per second during river flow and 20 litres per second as a production bore.
1.6, ultimately allowing increased supply to growers and an improved level of service during peak supply	In addition Gascoyne Water Cooperative has another seven unequipped production bores with a combined yield of about 16.4 litres per second. It is not currently viable to equip any of these bores although they have the potential to contribute in excess of 350 000 kilolitres per year.
periods.	The Gascoyne Water Cooperative will undertake a feasibility study to determine whether at least some of this water can be abstracted though the use of only solar power.
	In summary, by December 2016, the minimum Gascoyne Water Cooperative northern borefield capacity will be 158 litres per second with the infill bores equipped. Depending on funding and licensing the potential base load could be increased in stages to 174 litres per second and then 194 litres per second.
Recommendation 3.2 –	Progress Report: On Hold
Water Corporation – Southern borefield collector main (p19)	All pipe replacement works are on hold until the outcomes of the governance review is finalised.
Responsible Organisation: Water Corporation	
Carnarvon Ministerial Advisory Committee recommends that the Water Corporation's southern borefield collector main should be progressively replaced in accordance with the Water Corporation's current replacement planning.	

Recommendation 4 – Development of Gascoyne Food Bowl Initiative project borefield infrastructure (p20) Responsible Organisation: Department of Agriculture and Food Carnarvon Ministerial Advisory Committee recommends a staged approach to the development of the Gascoyne Food Bowl Initiative project borefield and related assets. Stage 1 – completion of infrastructure so it is fully integratable to the design system (by September 2016); and Stage 2 – the release of temporary water to existing growers and permanent water with the Gascoyne Food Bowl Initiative land releases.	Progress Report: Progressing Stage 1: The Gascoyne Food Bowl Initiative project has progressed in accordance with the Carnarvon Ministerial Advisory Committee recommended staged approach. Construction of the northern borefield pipeline and powerline are planned for completion prior to September 2016 to a design that will allow integration and connection to existing infrastructure. Note: The northern borefield supply pipeline to the Gascoyne Water Cooperative borefield was planned to be temporary until the Gascoyne Food Bowl Initiative supply pipeline was installed. However Gascoyne Water Cooperative has now fully repaired and upgraded the existing pipeline and it has been buried throughout its length. (Generous support of Department of Agriculture and Food, WA acknowledged). This revitalized supply pipeline should now be considered as part of the permanent infrastructure of the borefield. This supply pipeline and the proposed Gascoyne Food Bowl Initiative mains pipeline can run parallel along the northern bank of the Gascoyne River and both discharge into the distribution system. This means that with the southern borefield supply pipeline there could be three separate supply lines bringing irrigation water in from all borefields. The three supply lines would provide for greater flexibility in managing flows in the distribution system and would also provide an alternative water source in event of interruption of supply from either northern or the southern borefield. Stage 2 – Policy is currently being developed with interagency meetings set for late January and February 2016 for the temporary use of Gascoyne Food Bowl Initiative water will be allocated for proposed new Gascoyne Food Bowl Initiative water will be allocated for proposed new Gascoyne Food Bowl Initiative water will be allocated for proposed new Gascoyne Food Bowl Initiative water will be allocated for proposed new Gascoyne Food Bowl Initiative water will be allocated for proposed new Gascoyne Food Bowl I
Recommendation 5 – Ultimate integration of the irrigation scheme (p21) Responsible Organisation: Department of Water and then Gascoyne Water,	Progress Report: On Hold The Carnarvon Ministerial Advisory Committee report recommends Option 1 of the GHD report as the preferred configuration for an integrated irrigation supply. Whilst this recommendation is supported in principle, it will be subject to confirmation of the financial impacts and future funding arrangements. Major works are on hold until completion of the governance review.
Water Corporation and Department of Agriculture and Food Carnarvon Ministerial Advisory Committee recommends the infrastructure configuration	The Department of Water and Water Corporation have let an engineering contract to better define and document (including drawings) of the current and proposed infrastructure network. These drawings will form a basis of the proposed integrated system and any variations to it by individual supply entities during the single entity assessment process.
outlined as Option 1 of the	In the meantime any upgrade works undertaken will be consistent

GHD report as the preferred engineering option for the scheme.

with this longer-term objective.

THEME 2: Improved cooperatives' governance and viability

Carnarvon Ministerial Advisory Committee recognises the need to put in place actions to build the good governance, capability and future viability of the cooperatives. The improved capacity of the cooperatives dovetails into the question of the preferred bulk water supplier for the irrigation system, as the Committee has recommended that the cooperatives may be the bulk supplier based on their demonstrated performance against agreed criteria.

Recommendation 2 –	Progress Report: Initiated
Development of a level of service to growers (p18) Responsible Organisation: Gascoyne Water	The Gascoyne Water Cooperative is committed to providing the highest level of service achievable to both members and customers.
Carnarvon Ministerial Advisory Committee recommends that Gascoyne Water Cooperative defines the level of service and put in place service level agreements with its members as a matter of priority.	The Gascoyne Water Cooperative has prepared a revised new customer contract that sets out the terms and conditions and obligations for the supply of irrigation water to the Gascoyne Water Cooperative members and Coral Coast customers. The principle of equity of supply is a fundamental inclusion. This document is in draft form and currently under review by the Gascoyne Water Cooperative Board. It will then be provided to
	growers and peak groups such as the Carnarvon Growers Association Inc to elicit comment, modification and subsequent anticipated support.
	Proposed to be implemented by July 2016.
Recommendation 6.1 –	Progress Report: Initiated
Confirming a single bulk supplier (p23)	This recommendation was not accepted, as worded, by the Government, pending further investigations of additional
Responsible Organisation: Department of Water	governance options for a single entity to provide both bulk water and irrigation distribution services.
Carnarvon Ministerial Advisory Committee recommends that the process be commenced to confirm a single bulk supplier for irrigation water in Carnarvon. This supplier should be either the Water Corporation or the cooperatives.	Another potential supplier – a new Government-owned water utility – was identified and will be assessed through the governance review, along with the existing cooperatives, the Water Corporation and a Water Corporation subsidiary.
	It is planned for consultants to commence an independent governance review of options in early February 2016, with the aim of having the new governance option fully discussed with all stakeholders and a final recommendation to the Minister by mid- 2016.

	RECOMMENDATION
Recommendation 6.2 – Establish a deed of agreement with associated performance criteria (p25) Responsible Organisation: Department of Water Carnarvon Ministerial Advisory Committee recommends that at present it would not be appropriate to designate the Cooperatives to be the single bulk water supplier. However, Carnarvon Ministerial Advisory Committee recommends that a procedure be put in place to facilitate the development of the cooperatives' skills, capacity and experience with the intent of them being the future bulk supplier. A rigorous and regular assessment of the cooperatives' progress is required. At no stage should transfer of assets occur unless there is confidence in the long- term financial and operational success of the new scheme management. This process could take two to five years.	Progress Report: On Hold On hold until completion of the governance review. Should Gascoyne Water Cooperative be designated as the single bulk supply and distribution entity no transfer of assets should take place until such time there is confidence in its long-term financial and operational success.
Recommendation 10 – Financial viability of the cooperatives (p31) Responsible Organisation: Gascoyne Water Cooperative It is recommended that the cooperatives implement price structures (increases) that reflect actual take up of Gascoyne Food bowl Initiative project water to: • recover all costs associated with the diligent operations and maintenance of the scheme; and	Progress Report: On Hold The Government response to this recommendation was that the current charges levied by Gascoyne Water Cooperative do not reflect the actual cost of water. Any proposal for further financial assistance from the Government will only be considered after finalisation of the governance review. Currently the Gascoyne Water Cooperative considers it produces and distributes its own water profitably after consideration of capital expenditure, operating expenses, Administration/overheads and depreciation/replacement provision.
 collect sufficient monies to cover the cost of all future asset renewals of all assets 	The Gascoyne Water Cooperative recognises that this is in large part due to capital and operating assistance from particularly the state Government and also the Commonwealth Government, such as the Gascoyne Irrigation Pipeline, Gascoyne Water

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over the asset life.	 northern borefield electrification and the gifting of the Department of Agriculture and Food, WA infill bores in 2010. This has laid the foundation on which the business can operate and prosper. The Gascoyne Water Cooperative continues to believe the ultimate solution for the financial viability of its operation requires: the full integration of the existing borefield extraction system with a single management program; a separation of town water supply from irrigation water; and gifting to Gascoyne Water Cooperative of all southern borefield infrastructure not essential for town supply. The Gascoyne Water Cooperative is committed to working closely with the Government with its planned program to develop the best or most appropriate governance structure for a Carnarvon single irrigation supply service provider.
Recommendation 11 – Full cost recovery versus subsidies (p31) Responsible Organisation: Department of Water Carnarvon Ministerial Advisory Committee recommends that any level of financial assistance offered should be determined by the Government and be provided in line with the cooperatives meeting agreed performance outcomes.	Progress Report: On Hold On hold until completion of the governance review. Whilst this recommendation is supported in principle, it will also be subject to confirmation of the financial impacts and future funding arrangements.

THEME 3: Commitment to the expansion of the Carnarvon horticultural industry

The Government is committed to a future productive and sustainable irrigation industry in Carnarvon into the future. The Government is committed to the original intent of the Gascoyne Food Bowl Initiative project to expand the horticultural industry through releasing an additional 400 hectares of new horticultural land linked to providing up to four gigalitres per year of additional water.

Recommendation 7 – Ownership of Gascoyne Food Bowl Initiative project borefield assets (p27) Responsible Organisation: Department of Water and Department of Agriculture and Food The Department of Agriculture and Food, WA will not be the long-term owner or operator of Gascoyne Food Bowl Initiative project borefield and pipeline assets.	Progress Report: Initiated The Department of Agriculture and Food, WA will remain custodian of assets (Gascoyne Food Bowl Initiative production bores, 24 kilometres powerline and 24 kilometres mains pipeline) until the new single entity is determined. The Department of Agriculture and Food, WA has applied for a groundwater abstraction licence that the Department of Water is currently assessing.
Recommendation 8 – Gascoyne Food Bowl Initiative project infrastructure timetable (p27) Responsible Organisation: Department of Agriculture and Food The Department of Agriculture and Food, WA has informed Carnarvon Ministerial Advisory Committee that it anticipates the Gascoyne Food Bowl Initiative project borefield development out to 24 kilometres (as per engineering designs in recommendation 5) including electrification and the collector main pipeline will be completed by September 2016 in line with the agreement for funding from Royalties for Regions.	 Progress Report: On Target Progress of the Gascoyne Food Bowl Initiative project is on track to meet the September 2016 completion date. All pipeline hardware components have been purchased and a tender has been advertised for installation of the first 20.7 kilometres of pipeline. Current Gascoyne Food Bowl Initiative funding does not cover provision and installation of bore pumps and their connection to power source and pipeline and provision of Supervisory Control and Data Acquisition. The Department of Water has let a contract to accurately estimate costs of final connection of the Gascoyne Food Bowl Initiative borefield and production bores into the integrated system.
Recommendation 9 – Temporary use of Gascoyne Food Bowl Initiative project water (p28) Responsible Organisation: Department of Agriculture and Food Carnarvon Ministerial Advisory Committee supports the Minister for Agriculture and Food and Department of Agriculture and Food, WA announcement that any water that can be obtained	Progress Report: Initiated Water policy and procedures are currently been developed with interagency meetings set for January and February 2016 to develop policy and mechanisms/strategies for the use of temporary water by the existing industry and permanent allocation of Gascoyne Food Bowl Initiative water for proposed new Gascoyne Food Bowl Initiative land release.

project will be available through the cooperatives to
current growers on a temporary basis while land
release processes are being completed.

THEME 4: Improved water resource planning and management

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The greater availability of water in the Carnarvon horticultural district needs to be supported by better management of and planning for the water resource. It is Government's role to ensure this is done in the best way.

Recommendation 12.1 – Improved	Progress Report: On Target
Aquifer Modelling Tools (p35) Responsible Organisation: Department of Water Carnarvon Ministerial Advisory Committee recommends an accelerated upgrade of the groundwater flow model Gascoyne Floodplain Aquifer Modelling System v1.2, with the first stage completed by December 2015. This update, Gascoyne Floodplain Aquifer Modelling System v1.3, will incorporate the initial results (bore logs, aquifer test data and water quality data) from the Gascoyne Food Bowl Initiative project northern borefield drilling project. It will be coupled with recent data from the extended no-flow period and the subsequent recharge event.	An update and recalibration of the existing Gascoyne Floodplain Aquifer Modelling System model was completed in November 2015. This was slightly later than forecast due to delays in new data provision and a longer than expected model calibration time. This work has resulted in significant improvements to the reliability of modeling predictions for different scenarios. A more detailed rebuild of the model is scheduled to commence in July 2016 using improved model conceptualization from recent Aerial Electro Magnetic and borehole data. This will improve our understanding of the performance of local aquifers in Subarea A and the extraction from northern side of Subareas B–L. Modeling scenarios will provide the basis of the 2017 review of the <i>Lower Gascoyne groundwater allocation plan 2011</i> and associated community consultation. The rebuilt model will support better water resource management and prediction and the move to a single irrigation water service provider.
Recommendation 12.2 – Improved	Progress Report: Yet to Start
Aquifer Modelling Tools (p36) Responsible Organisation: Department of Water A Gascoyne Floodplain Aquifer Modelling System Lite version is	Gascoyne Floodplain Aquifer Modelling System Lite will be a version of the rebuild model with a fixed set of parameters. This will allow the model to be run by the Department's regional staff in a timely and cost effective manner.
developed for local usage that will enable the Department of Water staff to use the model for local decision-making	The Lite model conceptualization and design process will be scoped and work commenced by the end of March 2016.
and quarterly aquifer status reporting.	The Aquifer Status Reports will continue to be delivered as normal, using the current Department of Water spreadsheet model (Carnarvon Irrigation District Aquifer Condition) until Gascoyne Floodplain Aquifer Modelling System Lite becomes available.
Recommendation 13 – Improved	Progress Report: Completed for 2015–2020
Seasonal Predictions (p36) Responsible Organisation: Department of Water	The seasonal outlook was delivered by the Department of Water for the 2015 to 2020 growing seasons. This was released at the Gascoyne Water Cooperative and

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To alleviate uncertainty about water supply security it is recommended that medium term (three to five year) outlooks are generated annually to inform growers and water service	Gascoyne Water Assets Management Cooperative Annual General Meeting on 17 November 2015 and supported the announcement of a 100 per cent seasonal allocation in 2016. The seasonal outlook will be updated each year in October,
providers on current, short term and medium term water availability.	based on the past year's groundwater abstraction and any river recharge events.
	The outlook has been loaded to the Department's website at the Carnarvon irrigation district water availability outlook – October 2015.
Recommendation 14 – Increase Water Trading (p37)	Progress Report: Initiated
Responsible Organisation: Gascoyne Water Carnarvon Ministerial Advisory Committee recommends the release of water through temporary or permanent	The Gascoyne Water Cooperative has in place water trading procedures consistent with National Water Initiative principles. Details of water trades are maintained and are kept up-to-date and shown on the Gascoyne Water Cooperative website.
 Integration to perform y of permutation trading of C Class Gascoyne Water Cooperative shares be actively supported and developed by: improving grower security of supply; adoption of a pool-based trading program, administered by the Cooperative, that is impartial and considers the offset of fixed costs; and informing the grower community on the risks and benefits of water trading. Recommendation 15 – Short Term Response Plan (p38) Responsible Organisation: Department of Water Carnarvon Ministerial Advisory Committee recommends that the 	The Gascoyne Water Cooperative recognises the flexibility of operation that can be achieved by growers that use water trading to either enhance their production or to sell unused water to defray costs. Through communication the Gascoyne Water Cooperative will continue to encourage growers to include the option of water trading in their business plans.
	The Gascoyne Water Cooperative anticipates greater acceptance and use of water trading as confidence is developed with the greater reliability of service that will occur as well as with agreed service contracts (and the inclusion of the principle of equity of supply in these service contracts).
	Progress Report: Completed 2015-2016
	The 2015 Peak Demand Response Plan was released to growers on 7 September 2015. It was developed in conjunction with the Borefield Managers Group and has since been reviewed by the group twice during October to December 2015.
Department of Water, cooperatives and the Water Corporation prepare a Peak Demand Response Plan by 31 August each year to address peak demand responses for the coming October to	During the September to December 2015 peak demand period the daily demand was within the production capacity of the borefields. As a result there was no periods of extended low water pressures and therefore water

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January period.	availability to growers leading up to Christmas 2015.
Recommendation 16 – Lower Gascoyne water allocation plan (p38) Responsible Organisation: Department of Water Carnarvon Ministerial Advisory Committee supports the Department of Water's revision of the current 2011 Lower Gascoyne water allocation plan as proposed in 2018.	 Progress Report: Initiated The Department has begun pre-planning for the review and updating of the allocation plan. This includes a: list of products that are needed to support the development of a revised plan; list of modeling requirements and model scenarios; community engagement plan; and schedule for the project over the next two years. The allocation plan is proposed to be released as a draft in early 2018.
Recommendation 17 – Communications (p39)	Progress Report: An updated communication plan for the implementation of
Responsible Organisation: All Carnarvon Ministerial Advisory	the Government response to the Carnarvon Ministerial Advisory Committee report recommendations is at attachment 3.
Committee strongly recommends that the matter of communications be addressed with genuine purpose and involve all parties, particularly the cooperatives and growers and the agencies Department of Water, Water Corporation and the Department of	All agencies worked collaboratively to develop and release the Peak Demand Response Plan 2015 and the <i>Carnarvon</i> <i>irrigation district water availability outlook</i> – <i>October 2015</i> . This was delivered through the Borefield Managers Group which has met on four occasions since July 2015.
Agriculture and Food, WA as equal partners.	The Department of Water has mailed out to growers:
	 monthly meter reading notices in first week of every month; aquifer status reports on 3 August and 2 November 2015; expressions of interest notice regarding the release of
	 additional Subarea A water; and letter regarding the Carnarvon Ministerial Advisory Committee Report and the Government's response – including Vietnamese translations. The Committee's report, the Government response and 10 associated technical reports are available on the Department's website.
	 The Gascoyne Water Cooperative strongly supports active communication with growers, Government agencies and other interested and relevant parties, such as cooperatives elsewhere in Australia. The Gascoyne Water Cooperative communication program consists of a number of components as follows: direct communication with relevant state Government

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	 agencies in WA; active participation and contribution to the Borefield Managers Group; regular newsletters to Gascoyne Water Cooperative shareholders (growers). In 2015 newsletters were produced in May and October. A similar schedule is proposed for 2016. In addition to the newsletters, Gascoyne Water Cooperative issued two update communiques, conducted an information evening on 4 August 2015 and the Annual General Meeting on 17 November 2015; information evenings to provide growers and other interested parties detail on activities and progress within the Gascoyne Water Cooperative. Next meeting planned for Q2, 2016; informal interaction with cooperatives elsewhere in Australia; membership of relevant professional associations e.g. Irrigation Australia and participation in workshops/technical meetings; and annual reports for 2014–2015 have also been published. The Water Corporation met with Department of Water and Gascoyne Water on 7 December and Department of Water and GHD on 21 December 2015 to discuss technical infrastructure aspects for the scope of works for the governance review. The district office has continued with regular local communication activities.
	 informal interaction with cooperatives elsewhere in Australia; membership of relevant professional associations e.g. Irrigation Australia and participation in workshops/technical meetings; and annual reports for 2014–2015 have also been published. The Water Corporation met with Department of Water and Gascoyne Water on 7 December and Department of Water and GHD on 21 December 2015 to discuss technical infrastructure aspects for the scope of works for the governance review. The district office has continued with

Glossary of terms

Acronym	Meaning
CMAC	Carnarvon Ministerial Advisory Committee
DAFWA	Department of Agriculture and Food, Western Australia
DoW	Department of Water
GASFAMS	Gascoyne Floodplain Aquifer Modelling System
GFBI	Gascoyne Food Bowl Initiative
GIP	Gascoyne Irrigation Pipeline
GWAMCO	Gascoyne Water Assets Management Cooperative
GWC	Gascoyne Water Cooperative
SCADA	Supervisory Control and Data Acquisition