



Gloucester Gas Project Groundwater and Surface Water Work Programs for 2012 and Beyond Highlights

July 2012



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About us

Formed in 1837, AGL Energy Ltd is Australia's largest renewable energy company, selling natural gas, electricity and energy related services to more than 3.4 million customers across NSW, SA, VIC, and QLD.

AGL is committed to creating a sustainable energy future for our customers, investors and communities. The company is Australia's largest private owner, operator and developer of renewable generation assets. AGL is expanding its natural gas exploration and production to facilitate long term supplies for its domestic customers.

For more Information

If you would like to know more about our operations in Gloucester please contact the Gloucester Gas Project team.

Introduction.

As part of our Gloucester Gas Project (the Project), AGL is undertaking extensive water studies across our Stage 1 Gas Field Development Area (GFDA). Feedback from the Project's Community Consultative Committee members and from the local community has highlighted the need for continued information on the water studies. During 2011 and the first half of 2012, we completed our initial Phase 2 site investigation studies, installed our regional monitoring network and commenced baseline monitoring of water levels and water quality. This information is available on our project web site.

AGL is committed to building on our understanding of the groundwater and surface water in the GFDA with further key studies, some of which have already commenced.



^Testing of water at Gloucester



^Team purging deep monitoring bore

Current Work Programs.

Current work programs are designed to establish a wider monitoring network and a broader understanding of surface water and groundwater processes. The objective is to develop a conceptual model before entering exact data, so that we can assess any potential long term affects of wellfield development before that development begins.

Our current studies focus on water resource investigations, aquifer/water bearing zone characterisation, and associated monitoring programs. Our water investigation programs can be divided into five phases.

These phases, detailed below, will evolve as the results of earlier work programs are available and data gaps are resolved.

Phase 1: Desktop Studies

As part of the Stage 1 GFDA work programs, the 2007 URS Report and 2010 SRK Report were both completed. Reports for subsequent stages are planned for 2013.

Phase 2: Detailed Site Investigations

As part of the Stage 1 GFDA work programs, the 2012 Parsons Brinckerhoff Report was completed. In addition, fault investigations and baseline monitoring for the Waukivory flow test are both underway, and property surveys and use of deep vibrating wire piezometers are about to begin. The surface water hydrology report, which was added as a direct result of the GCCC's independent peer review (IPR)

report undertaken by Dr Richard Evans, is planned but has not yet commenced.

Subsequent site investigation stages will include baseline monitoring and flow testing of the Wards River and Weismantels areas. These studies are part of a wider regional study.

Phase 3: Numerical Modelling

As recommended by the IPR, a water balance study is underway as part of the Stage 1 GFDA work program. The IPR also recommended the revision of the conceptual model report, based on additional information that will be gathered. All data will be compiled, assessed and used by AGL to develop the numerical model of the Gloucester Basin.

Phase 4: Ongoing Monitoring Programs

The current program involves continued monitoring of:

- > five locations to monitor the surface water network, including two locations added in 2012
- > 27 locations to monitor the groundwater network, including eight locations added in 2012.

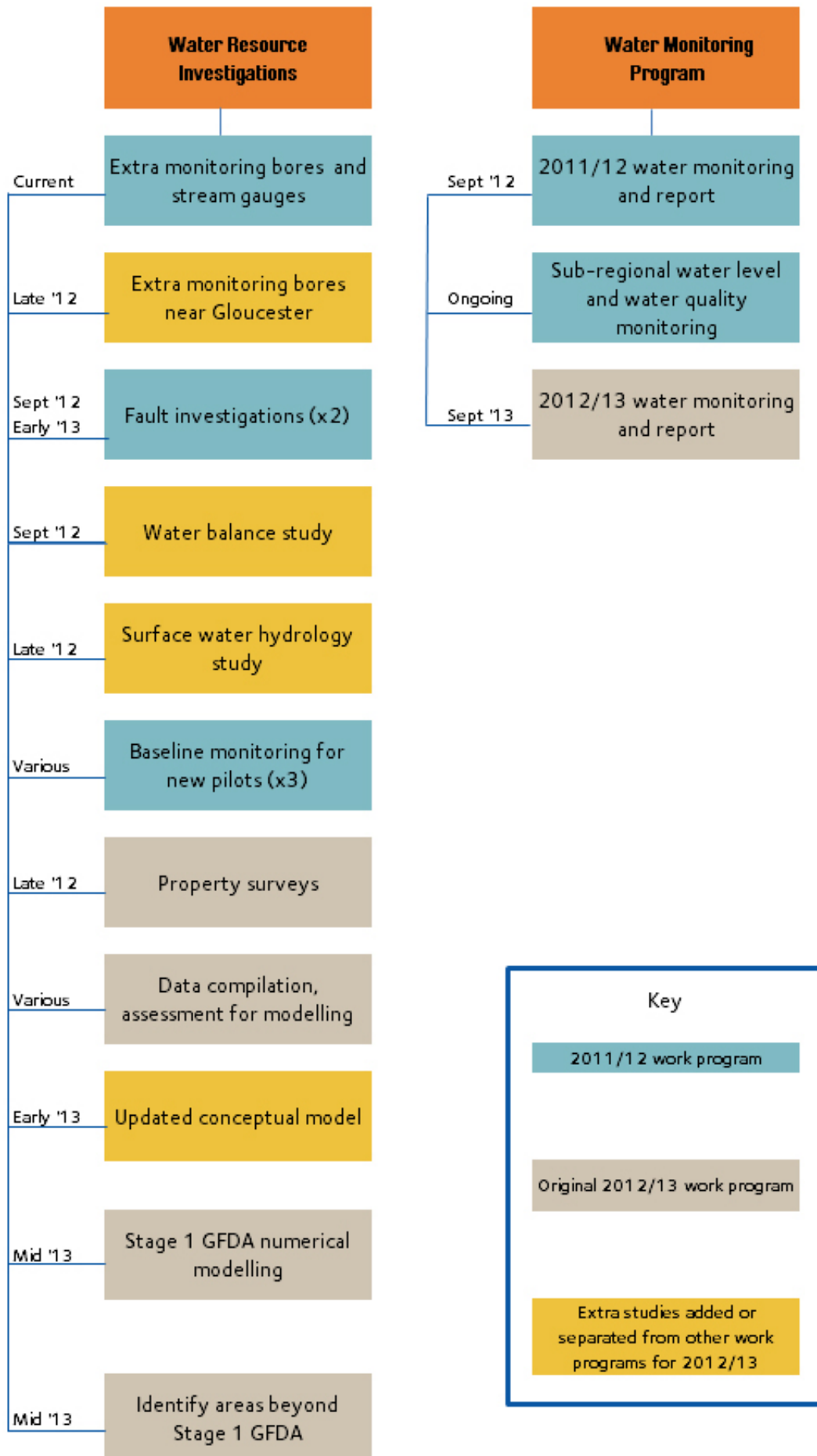
Phase 5: Project updates and additional studies

Extra monitoring bores near Gloucester are planned for 2012/13 as recommended by the IPR.

The work associated with Phases 3, 4 and 5 largely overlap and will continue into the operational phase of the Project.

The individual work programs under each phase are shown in the figure on the following page.

Overview of 2011/12 and 2012/13 Water Programs





^Measuring water levels in a monitoring bore

IPR's recommendations.

Many of the recommendations in Dr Richard Evan's IPR (see separate fact sheet) were already underway or planned as part of the Phase 3 Numerical Modelling work package prior to the May 2012 release of the final IPR report. In addition, there are several studies recommended by the IPR that are new and deserving of additional investigation and focus. These include:

- > The installation of additional dedicated monitoring bores close to Gloucester
- > An expanded surface water hydrology study that will investigate the occurrence of springs, assess the flow of an the existing project stream gauge, assess the flows along the major tributary creeks, and investigate the sources and volume of baseflow along the Avon River
- > A stand alone water balance study that quantifies all the components of groundwater recharge and discharge across the Stage 1 GFDA
- > A stand alone conceptual model report incorporating the results of the additional fault testing, water balance and surface water hydrology studies

Future deliverables.

There are several major reports to be completed in the coming months which include:

- > Water balance study by end of September 2012; and
- > 2011/12 water monitoring program report for the last 18 months, by end September 2012.

Additional fact sheets on AGL's produced water management studies and irrigation trial are available on our project website.

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