8.0
Data management and interpretation

QGC
A BG Group business

8.0 Data management and interpretation

8.1 INTRODUCTION

Monitoring the quality of groundwater is a very important part of the water management process for QGC. Monitoring provides baseline data against which impacts can be measured and provides an early indication of any issues, which need to be mitigated. The collection, storage and interpretation of accurate data on groundwater quantity and quality is an integral aspect of groundwater management.

8.2 DATA MANAGEMENT AND REPORTING

QGC is investigating options to establish a groundwater data management system in order to consolidate the collected data from groundwater bores into a standard data model system, which has the capability to support integrated operation through integration with systems used in well engineering and production operation disciplines.

QGC data management system (Figure 29) is planned to incorporate several existing data bases:
- Well engineering data (Wellview)
- Subsurface data
- Pressure data (PDMS)
- Water quality (Envirosys).

A GIS-based platform is currently under development to link the datasets for management and communication purposes.

Safety at work. Everyone has a duty to intervene to prevent accidents.
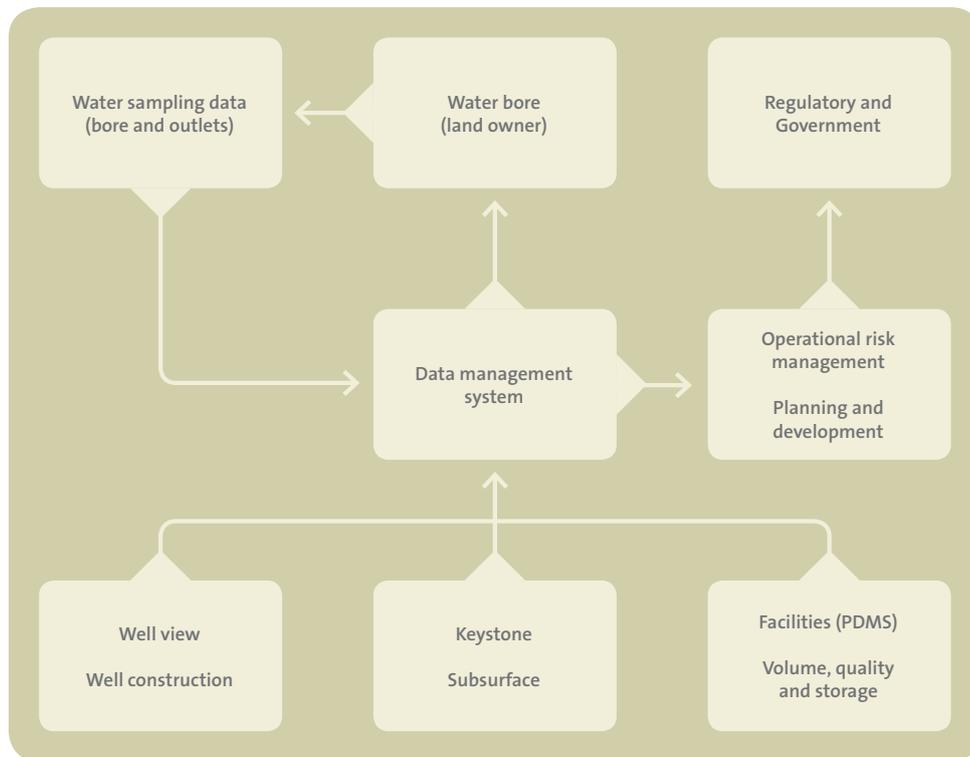
Figure 29 – QGC's data management system

8.3 DATA INTERPRETATION AND MODELLING

New geological and hydrogeological data acquired during the Stage 2 Drilling and Monitoring program will be incorporated into the GEN3 model to better determine impacts from QGC's development of the QCLNG project on the aquifers of the Surat Basin. The static model will be developed in Petrel and it is planned that the numerical simulations will be run through Eclipse.

8.4 LONG-TERM UNIFIED WATER MONITORING AND METERING PLATFORM

QGC is developing a long-term unified operations platform to manage/operate successfully its CSG groundwater monitoring and surface water infrastructure in the Surat Basin. A modelling system would receive online measurements from key monitoring points throughout the groundwater monitoring and water infrastructure network from a SCADA based network to enable real time dynamic modelling.

The specific monitoring and metering tool will be developed to be able to extract information from existing databases, utilise this to create new outputs and also be able to feed back the outcomes to the specific databases.

QGC in association with other CSG companies has developed a **comprehensive scheme of early warning and trigger monitoring bores** to protect EPBC springs.