PART B – PRELIMINARY AEIS

18. GREENHOUSE GAS EMISSIONS

18.1. Greenhouse gas emissions – water use

A submitter suggested that the calculation of greenhouse gas (GHG) emissions should consider the indirect contribution associated with the end use of water, particularly by mines. The EIS and **Section 1.2** of Part B of the AEIS note that mines are not considered a consequence of this Project. The EIS estimated the GHG emissions from construction, operation and upstream activities as required by the ToR and relevant guidelines. The ToR for the Project do not require an assessment of the GHG contribution of water users.

Water users with significant GHG contributions (>25,000 kt CO_2-e) are required to report GHG emissions under the National Greenhouse and Energy Reporting System (NGERS).

SunWater are not responsible for GHG emissions from potential water users. The development of any new mining activity will be subject to a separate approvals process including an assessment of their potential GHG emissions.

18.2. Project lifetime greenhouse gas emissions

A submitter requested the Proponent calculate total GHG emissions over the life of the Project. The GHG emissions for both construction and operation were presented in Section 18.3 of the EIS. The GHG emissions from operations were presented in the EIS on an annual basis. The design asset life of the Project is 100 years. The GHG emissions from dam operations over a 100 year period are expected to be approximately 7 Mt CO_2-e based on the annual GHG emissions estimates of 0.072 Mt CO_2-e. Australia's annual emissions for the year to September 2015 were estimated to be 549.6 Mt CO_2-e (DoE, 2016). The estimated annual GHG emissions from the operation of the Project represent a small fraction (0.01%) of Australia's annual emissions.

The submitter further requested the Proponent assess measures to mitigate GHG emissions. Section 18.4 of the EIS provided abatement measures in accordance with the ToR. SunWater will assess the feasibility of these opportunities during the detailed design phase.

A submitter suggested the Project should achieve GHG emission neutral status within three years of commissioning. SunWater are responsible for reporting and managing GHG emissions in compliance with the *National Greenhouse and Energy Reporting Act 2007* (NGER Act).

SunWater will comply with the requirements of the NGER Act.

18.3. Loss of future carbon offsets

A submitter noted that inundation of farming land would cause lost opportunity with respect to carbon farming. The carbon offset potential via tree growth in the Bowen Basin is relatively low in comparison with more productive sites, such as in high precipitation coastal areas. The water storage area represents a very small proportion of the total catchment, consequently there will remain substantial areas available for carbon farming.