

ATTACHMENT F: ADDITIONAL INFORMATION REQUESTED BY OEH

A targeted survey for exuviae and adults of the threatened Giant Dragonfly (Petalura gigantea) in all upland swamps within Area 3B be carried out in December 2015 and January 2016. This information was not provided in the original SMP application and is important for establishing both a baseline for ongoing monitoring and to inform offset negotiations for this upland swamp dependent threatened species.

Targeted surveys for the Giant Dragonfly were undertaken between 20 and 27 January 2016 (Attachment R). Surveys were undertaken when weather parameters were favourable for flying adults i.e. days above 20°C, wind speeds lower than 15 km/h and no precipitation.

The 13 swamps within Dendrobium Area 3B were surveyed for the presence of both exuviae and adults, including Swamps 01a, 01b, 03, 04, 05, 08, 10, 11, 13, 14, 23, 35a and 35b.

Surveys were undertaken by two zoologists experienced in the identification of the species, with the aim of covering all, or the majority of each swamp. Cyperoid Heath and Tea-Tree Thicket were prioritised as these sub-communities have been found to provide the most suitable Giant Dragonfly breeding habitat in swamps of the Cordeaux and Cataract catchment area. Foraging habitat for adult Giant Dragonfly was also surveyed throughout all swamps and within adjacent woodlands.

When an exuviae was observed, its location was noted along with its sex and where it was perched. Surveys for adults, included scanning for flying individuals and searching for perched individuals in all sub-community types visited within swamps and adjacent woodlands. When an adult was observed, its location was noted along with its sex and its behaviour at the time (i.e. perched, flying, copulation).

Giant Dragonfly were recorded at Swamp 01a, Swamp 11 and Swamp 14. A total of 11 adults and one exuviae were recorded during the surveys. The exuviae recorded was a female found at Swamp 01a, in an area of Cyperoid Heath.

A total of three adults were recorded within Swamp 11, including a solitary female and two males engaging in a territorial dispute. A total of eight adults were recorded within Swamp 14, including three males attempting copulation with a female, several solitary males flying and a solitary male observed actively foraging.

All records of exuviae and adults were located in areas recognised as suitable habitat for the species, within either Cyperoid Heath or Tee-tree Thicket.

A finalised biodiversity offset strategy for predicted impacts of Longwalls 9-18 on upland swamps and the Giant Dragonfly. This should include calculations of the offset requirements for the mining impacts on upland swamps and associated threatened species in Area 3B and calculations of how the land proposed for transfer at Maddens Plains, and other proposed actions if relevant, meets those requirements.

A Strategic Biodiversity Offset located at Maddens Plains, New South Wales is proposed to meet the biodiversity offsetting requirements pursuant to Condition 2.15 of the Dendrobium Mine Development Consent.

Dendrobium Mine proposes to transfer the entire 598 ha Maddens Plains site to the NSW Government for inclusion into the National Parks Estate. The Maddens Plains site secures an important biodiversity corridor and establishes connectivity between the Illawarra Escarpment State Conservation Area and the Dharawal Nature Reserve.

The Strategic Biodiversity Offset proposes to provide like-for-like physical environmental offsets for the predicted impacts associated with both Dendrobium and Bulli Seam Mining Operations. An assessment of the vegetation on the proposed Strategic Biodiversity Offset land, based on mapping undertaken for the Native Vegetation of the Illawarra Escarpment and Coastal Plain (NPWS 2002), shows that 140 ha of upland swamp is present to compensate for potential subsidence related impacts to upland swamps in the Dendrobium mining areas. The Maddens Plains site also includes additional environmental attributes such as; threatened flora and fauna, Aboriginal cultural heritage sites, waterways and cliff lines are also present at the Strategic Biodiversity Offset site.