

ENVIRONMENTAL WORKS AND MEASURES FEASIBILITY PROGRAM

PROJECT DESCRIPTIONS

New South Wales

1. Assist New South Wales to deliver feasibility investigations including, the costs, risks and benefits, of the following environmental works and measures sub-projects that have the potential to offset sustainable diversion limits (SDLs):

(a) Euston Lake restoration and improved water efficiency sub-project (\$0.4 million) will undertake a range of feasibility studies to investigate the management of Euston Lakes to assess water efficiencies and environmental benefits through a more natural wetting and drying regime. Euston Lakes are located on the northern side of the Murray River, approximately 80 kilometres south east of Mildura near the town of Euston.

(b) Upper Murrumbidgee environmental flow enhancement sub-project (\$0.5 million) will investigate the feasibility of raising the operational flow limit at Gundagai to allow improved environmental outcomes for mid-river wetlands (Wagga Wagga to Hay, NSW). The investigation will include the potential for this to provide environmental water efficiencies and will identify the need for complementary actions such as the purchase of easements.

(c) Nimmie-Caira System Enhanced Environmental Water Delivery Sub-project (\$0.2 million) will investigate the potential to enhance environmental water delivery to key ecological assets in the Lower Murrumbidgee floodplain and potentially downstream in the Murray Valley. The investigations will consider the potential to provide both significant environmental benefit and reduce environmental water requirements through changed land use and the use of existing or enhanced infrastructure to better deliver environmental water.

(d) Piping Irrigation Demands sub-project (\$0.15 million) will undertake pre-feasibility investigations of the potential for water efficiency gains from developing pipelines to supply irrigation users in close vicinity to NSW State Water dams. The investigation will include consideration of the potential to deliver better and more water-efficient environmental outcomes from returning to more variable flow patterns in rivers and streams.

(e) Burrendong Dam sub-project (\$0.2 million) environmental flow enhancement subproject will undertake a pre-feasibility study to investigate the potential benefit from enhancing the outlet capacity at Burrendong dam, south east of Wellington, NSW. This may enable the release of higher pulse flows which could lead to environmental benefits such as native fish spawning and recruitment, and potentially the more efficient delivery of environmental water including to the Macquarie Marshes.

(f) Southern Macquarie Marshes sub-project (\$0.2 million) environmental flow enhancement sub-project will assess options for more efficient inundation of the South Macquarie Marsh (approximately 50 kilometres north of Warren, NSW). This feasibility assessment will include options for restoring more stable floodplains, streambeds and wetlands.

(g) Investigation into efficient delivery of high priority stock and domestic supplies sub-project (\$0.15 million) will undertake pre-feasibility assessments to identify additional water efficiency gains by piping stock and domestic water supply schemes in high priority locations including in the Macquarie, Murray, Murrumbidgee river systems.

(h) Modify Weirs enhance floodplain inundation sub-project (\$0.2 million) will undertake a strategic assessment (part feasibility) of some existing weirs along the Murray River to determine the optimal weir pool height for facilitating more efficient delivery of environmental water onto the floodplain in a range of flow events.

Queensland

2. Assist Queensland to deliver feasibility investigations, including the costs, risks and benefits, of the following environmental works and measures project that has the potential to offset sustainable diversion limits (SDLs);

(a) Queensland Murray Darling Basin Environmental Works and Measures project (\$1.0 million) will identify the prospects for environmental works and measures in priority locations for diversion limit reductions such as the Lower Balonne catchment of Queensland. Individual projects will be shortlisted for further development in close consultation with existing community groups and key stakeholders. The proposal also includes development of preliminary costs estimates for priority proposals and development of a program to remediate/ retire overland flow diversion works in priority locations.

South Australia

3. Assist South Australia to deliver feasibility investigations including, the costs, risks and benefits, of the following environmental works and measures sub-projects including their potential to offset sustainable diversion limits (SDLs):

(a) Katfish Reach and Pike Implementation (Stage 3) sub-project (\$0.65 million) will assess the feasibility of installing new environmental regulators in the Pike floodplain near Renmark and the Katfish Reach floodplain, south of Berri, South Australia. The aim is to enable broad floodplain inundation with less environmental water than required under a natural flood event. Katfish reach is a demonstration reach for native fish under the Murray Darling Basin Native Fish Strategy.

(b) Eastern Mount Lofty Ranges Low Flow Bypasses sub-project (\$0.18 million) will undertake pre-feasibility hydrological modelling to determine the strategic placement of possible low flow bypass devices in dams at locations in the Eastern Mount Lofty Ranges region of South Australia.

(c) Proposed sub-project (\$0.17 million) – details being finalised1.

Victoria

4. Assist Victoria to deliver feasibility investigations including, the costs, risks and benefits, of the following environmental works and measures sub-projects that have the potential to offset sustainable diversion limits (SDLs):

a) Watering the Lindsay Island floodplain sub-project (\$1.1 million) will progress Stage 2 of the Lindsay Island project by revising concept designs and conducting studies, such as salinity, geotechnical and cultural heritage. Stage 2 involves construction of a large weir and eight smaller regulators to improve inundation regimes for over 5000 hectares including large areas of River Red Gum floodplain.

b) Watering the Wallpolla Island floodplain sub-project (\$0.1 million) will undertake a review of the existing concept designs for a three kilometre long channel and seven regulating structures proposed to improve inundation regimes of around 1,000 hectares of floodplain, including River Red Gum communities and wetlands, as well as increasing flowing habitat by 50 kilometres. This process may also identify potential additional environmental benefits. 1 South Australia – a further sub-project to the value of \$0.17 million has been proposed for which details are being finalised.

c) Watering River Red Gum sites along the Murray sub-project (\$0.2 million) will undertake scoping studies and feasibility investigations into using structural works to deliver environmental water to various Victorian sites, between Echuca and the South Australian Border, including in the newly established reserves for the protection of River Red Gums.

d) Watering black box wetlands in Gunbower forest sub-project (\$0.45 million) will undertake concept design of a 50 metre channel to deliver water from the Torrumbarry weir pool to the Gunbower forest; an off take regulator and fishway; and minor earth works to remove man made barriers. These works could potentially inundate over 8,000 hectares of forest, including threatened Black Box woodland and wetlands. The concept design and preliminary studies for the proposed work are already completed

e) Watering the Hattah Lakes - Chalka Creek North sub-project (\$0.15 million) will complete feasibility studies and progress detailed designs of an environmental regulator, upgrade roads and box culverts for Chalka Creek north, approximately 50 kilometres south of Mildura, Victoria. It will investigate the delivery of water to the site via a pump station that is to be constructed un