This document is an attachment to the Goulburn Monitoring Evaluation and Research (MER) Plan and describes additional project services to be undertaken. Please visit Monitoring, Evaluation and Research Plan - Goulburn River to read the entire Goulburn MER Plan.

Visit Monitoring, Evaluation and Research Program (Flow-MER) to find out more about monitoring undertaken by the Commonwealth Environmental Water Office.

*Note that all projects will comply with Covid-19 pandemic restrictions and may require changes to activity and timelines.*

# Schedule 6 –Work Order

| **Order** |
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| The parties have agreed in accordance with clause 7 the Agreement that the Provider will provide the Additional Project Services specified in this Work Order. |

### Goulburn MER Contingency Fish Monitoring

| Item | Description | Clause | Details |
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| 1. | **Agreement description** | N/A | Agreement for Additional Project Services in respect of Long-form Services Agreement Commonwealth Environmental Water Office: Monitoring, Evaluation and Research Services for the Goulburn River Selected Area – 18 March 2019 |
| 2. | **Names of Parties to the Agreement** | N/A | The Commonwealth of Australia as represented by the Department of Agriculture, Water and the Environment<br>ABN 34 190 894 983<br>University of Melbourne<br>ABN: 84 002 705 224 |
| 3. | **Additional Project Start Date** | 1.1 | From the date of approval by CEWO of the Work Order |
| 4. | **Additional Project Timeframe** | 1.1 | From the date of approval by CEWO of the Work Order to 30 December 2022 |
| 5. | **Category of Services** | 7 | Monitoring |
| 6. | **Additional Project Services** | 7 | This work order is for work to be conducted for two different fish monitoring initiatives that will each improve our knowledge of fish movement and population sources in the Goulburn River and lower Murray River. See Background at Attachment A. |

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| | | | **Murray River golden perch larval monitoring**<br><br>The 2020 spring larval surveys in the Goulburn River (undertaken as part of the MER Core project – see MER Plan - Goulburn - Section 5.5 Fish) will be extended to include three sites around the confluence with the Murray River with samples to be collected on five occasions at weekly intervals.<br><br>**Juvenile trout cod and Murray cod tracking**<br><br>This new monitoring activity will use radio tracking to study the small-scale movements of juvenile trout cod and/or Murray cod in the Goulburn River. It will take place over 10–12 weeks in spring/summer 2021 with eight trips every 1–2 weeks. |
| 7. | **Subcontractors** | 6.5 | Arthur Rylah Institute for Environmental Research ABN: 90 719 052 204<br><br>Goulburn Broken Catchment Management Authority: ABN 89 184 039 725 |
| 8. | **Progress meetings and reports** | 11 | **Meetings**<br><br>• Meetings of the team as necessary to plan monitoring activities in concert with flow regulation decisions<br>• Provide updates to each Working Group meeting<br>• Provide verbal updates to CEWO when required<br><br>**Reports**<br><br>• Provide brief written content describing this activity to incorporate into the Core Program quarterly outcomes newsletter<br>• Report contingency monitoring activities and outcomes as part of the Goulburn MER Annual Report |
| 9. | **Performance Criteria** | 12 | The following Performance Criteria will apply to the Additional Project Services specified in the Work Order:<br><br>- Must be undertaken in accordance with the Work Order, the updated Larval Sampling Standard Operating Procedures and the new Standard Operating Procedures for juvenile trout cod and Murray cod tracking.<br>- Must be completed to a professional standard.<br>- Must address relevant feedback provided by the CEWO.<br>- Must be undertaken in accordance with the dates and timeframes specified in the Work Order |

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| | | | - Outcomes must be included in the annual Goulburn MER report in accordance with the agreed standard format and template and include recommendations for how Commonwealth Environmental Water may influence fish outcomes. |

Attachment A

**Background**

Juvenile trout cod and Murray cod tracking

This new monitoring activity will use radio tracking to study the small-scale movements of juvenile trout cod and/or Murray cod in the Goulburn River in order to better understand the types of habitats they use. Improved understanding of cod habitat use will inform flow management and complementary habitat restoration works to improve the recruitment of larval Murray cod into the adult population.

This monitoring activity will use radio tracking to study the small-scale movements of juvenile trout cod and/or Murray cod in order to better understand the types of habitats they use. Improved understanding of cod habitat use will inform flow management and complementary habitat restoration works to improve the recruitment of larval Murray cod (which we observe every year in the Goulburn River) into the adult population.

The monitoring will take place over spring 2021 and summer 2021–22.

Murray River golden perch larval monitoring

Prolonged monitoring of golden perch spawning in the lower Goulburn River has concluded that the great majority of eggs and larvae are exported from the Goulburn into the lower Murray River. However, the importance of the Goulburn River spawning for overall abundances of larval golden perch in the Murray is not well understood.

By examining the presence and abundance of eggs and larvae in the Murray River, the proportion of golden perch larvae that have come from the Goulburn River can be determined, providing arguments in favour of continued investment in late spring flows pulses in the Goulburn as a means of supporting golden perch populations at larger scales.