

Submission on Draft Scoping Requirements for the Lindsay Island and Walpolla Island Floodplain Restoration Projects Environmental Effects Statement and the Draft Scoping Requirements for the Hattah Lakes North and Blesar-Yungera Floodplain Restoration Projects Environmental Effects Statement

1. This submission is made on the Draft Scoping Requirements for the Lindsay Island and Walpolla Island Floodplain Restoration Projects Environmental Effects Statement and on the Draft Scoping Requirements for the Hattah Lakes North and Blesar-Yungera Floodplain Restoration Projects Environmental Effects Statement ('Draft Scoping Requirements'). We refer to these bundled projects collectively as 'Projects' in this submission.
2. For present purposes, matters in this submission concern Draft Scoping Requirements for the Projects unless otherwise indicated.
3. This submission is made jointly by Environmental Justice Australia ('EJA'), Environment Defenders Office ('EDO') and the Wentworth Group of Concerned Scientists ('WGCS'). Each of these organisations has extensive experience and expert knowledge concerning water management generally and, specifically, law and science concerning the Murray-Darling Basin ('MDB'). This includes but is not limited to the SDL Adjustment Mechanism ('SDLAM') of which these projects are a part.
4. The principal contact person for this submission is Dr Bruce Lindsay, Senior Lawyer, Environmental Justice Australia. Dr Lindsay can be contacted at bruce.lindsay@envirojustice.org.au or on 0439 035 277. Signatories for all organisations are included at the end of this submission.
5. Our primary submission on the Draft Scoping Requirements is that the scope of environmental assessment currently proposed fails to include and take account effects arising from the fundamental legal and practical context for the Projects: the operation of the SDLAM Adjustment Mechanism under Ch 7 of the Basin Plan 2012 and as amended in 2017.¹
6. This context includes the fact that the SDLAM Adjustment Mechanism comprises 36 'supply measure' projects in total and that these 36 projects were inputted into the hydrological model that the Murray-Darling Basin Authority ('MDBA') used to determine that in combination these projects could contribute a 605GL/yr reduction in actual water available for the environment under the Basin Plan. That is, the projects were considered in tandem for the purposes of determining this reduction figure, which was in turn legislated via the aforementioned amendment to the Basin Plan.
7. However, the proposed scope of assessment of environmental effects of the Projects is limited to the Projects. That is, it does not require any consideration or assessment of the

¹ *Basin Plan Amendment (SDL Adjustments) Instrument 2017 (Cth)*

indirect and cumulative effects of the Projects delivered in concert with all other projects comprising the SDLAM. We note that these include, but are not limited to, all projects of the Victorian Murray Floodplain Restoration Project ('VMFRP'). Limiting the scope of the assessment of environmental effects in this manner is of great consequence for the reasons outlined above, namely the fact that the operation and implementation of the SDLAM as a whole facilitates or enables reduction in recovery of water for the environment by 605 GL/yr across the MDB. This quantum is approximately 22% of the amount (2750 GL/y) of water recovery intended under the Basin Plan.

8. Moreover, material prepared in relation to the Projects to date primarily focuses on assessment of the 'benefits' of the projects. Project risks (e.g. to water quality) are identified and mitigation is proposed in some cases, but there remain serious risks that are not addressed in the assessment process.²
9. The design and operation of the Projects, in concert with other SDLAM projects including those of the VMFRP,³ will likely have the further, consequential effect of avoiding re-establishment of a more naturalistic flow regime across the Murray River floodplain upstream and downstream of the Project sites. More precisely, flow impact will be in river reaches of the Southern Basin where environmental water targets will be reduced as a result of the reduction. Consequential adverse effects are to be expected across the Murray River floodplain and foreseeable for downstream ecosystems including Ramsar sites to the Lower Lakes of the Murray River system. Specific consideration of these points are included below.
10. In light of these submissions, it is our common view that:
 - a. The contextual setting of the Final Scoping Requirements must include:
 - i. The functioning of the Projects under the SDLAM (including the legal context of the *Water Act 2007* (Cth), *Basin Plan 2012* and relevant legislative instruments)
 - ii. The operation of the Projects within the practical and regulatory setting of the MDB
 - iii. The operation of the Projects within the sub-catchment of the Murray River, as affected by river regulation, from its principal storages to the Lower Lakes.
 - b. The scope of assessable environmental effects incorporated into an EES must include expressly:
 - i. Indirect effects of the Project as a component of implementation of the SDLAM on Victorian Murray River floodplain ecosystems
 - ii. Cumulative effects of the Project, in combination with all other VMFRPs, on the ecosystems of the Victorian Murray River floodplain

² See Wentworth Group of Concerned Scientists *Submission to Murray-Darling Basin Authority on Sustainable Diversion Limit Adjustment Draft Determination* (2017), <https://wentworthgroup.org/2017/11/submission-to-murray-darling-basin-authority-on-sdl-adjustment-draft-determination/2017/>

³ See MDBA *Register of Measures* (2018)

- iii. Further to (i), potential adverse effects and risks to water (flood) dependent forest and woodland ecosystems not the subject of works
- iv. Further to (ii), all downstream Ramsar sites including Riverland, Banrock Station Wetland Complex, and The Coorong and Lakes Alexandrina and Albert.

11. The Final Scoping Requirements should be amended as set out below in this submission, specifically in relation to directing the Proponent to account properly and fully for the legal and operational environment of the Projects and the environmental effects and risks attached to that context (especially as relate to ecological and hydrological effects and risks).

The environmental context

12. The Projects are environmental works projects located downstream of Mildura (Lindsay and Walpolla Islands) and in the vicinity of Robinvale (Hattah North and Belsar-Yungera).

13. The types of works proposed are generally known as ‘supply measures’ and may be characterised as a form of infrastructure works analogous to irrigation works intended to divert water from natural watercourses (Murray River) onto river floodplains in a controlled and engineered manner with the aim of mimicking natural flooding regimes, albeit confined to certain anticipated zones of inundation.

14. The Projects are similar to other environmental works projects previously designed and implemented as part of the Living Murray Initiative, such as at Hattah Lakes.

15. Estimated areas of inundation and preliminary consideration of works design, biodiversity, hydrological and other impacts are set out in documents referred to the Federal Environment Minister as part of the Minister’s decision-making under the EPBC Act, as well as documents on the DELWP EES website.

16. The Project areas are a part of the larger Murray River floodplain, which can be broadly characterised as extensive, connected water-dependent forest and woodland ecosystems from the foothills of the Great Dividing Range to the Murray Lower Lakes. Under natural conditions those floodplain ecosystems are served by annual, seasonal flooding regimes (lateral connectivity to the river) across the length of the river system (longitudinal connectivity). These flooding regimes are intrinsic and essential elements of ecosystem health and function.

17. Additionally, the Project areas are part of the broad MDB, especially as connected to other major water systems of the MDB such as the Darling/Baarka, Murrumbidgee, and Goulburn River basins.

18. The situation of the Project areas as subsidiary ecological assets within the Murray River sub-catchment and the MDB is intrinsic to proper consideration and assessment of environmental effects. In significant part that is the result of the operation of law, as we identify below.

The legal context: the *Environmental Effects Act 1978*

19. The assessment process operates under the *Environment Effects Act 1978* (Vic) ('Assessment Act').
20. The assessment process, in brief, requires the proponent to prepare an Environment Effects Statement on environmental effects of the works, where, as here, the Minister has decided that will be required under the Assessment Act.
21. The proponent is a public water authority, Lower Murray Water.
22. The assessment scheme is set out in detail under Ministerial Guidelines made under section 10 of the Assessment Act.⁴ These Guidelines provide the detailed machinery for the assessment process.
23. The EES will inform the Minister's assessment of the works, subject to any inquiry under section 9 and report provided from that inquiry, and the assessment can inform various statutory decisions under Victorian law and, in this instance, approval decisions under the EPBC Act.
24. The Assessment Act provides very little in the way of legislative guidance to the Minister in directing how an EES should be constructed or how, on the basis of that EES, an assessment should be made by him or her. The very wide discretion available to the Minister has been confirmed in the case law.⁵
25. Although the Assessment Act contains no objects or purposes provisions, the Courts have taken the approach, consistent with the broad discretionary nature of the Act, that its principal intention is informative – that is, its 'primary purpose is to require the environment effects of certain works to be assessed'.⁶ More specifically, it is to be targeted to 'those projects that have the potential for environmental effects of regional or State significance'.⁷ The requirement for an EES and assessment under the Act is not necessarily confined as a direct incident of a statutory decision. That is reflected in the Ministerial Guidelines which emphasis the role of an EES where 'normal statutory processes' would be insufficient to the assessment process.⁸
26. The nature of 'environmental effects' is of considerable importance and relevance. In our submission the nature and scope of 'environmental effects' is particularly critical to the scope of the EES and hence assessment in this instance. If the primary purpose of the EES is to enable assessment to be made under the Act, proper and reasonably accurate framing of assessable or potentially assessment 'effects' (or impacts) is central to the task set out under the legislation. That proposition is reinforced by the accepted test at common law that

⁴ DSE *Ministerial Guidelines for Assessment of Environmental Effects under the Environmental Effects Act 1978* (7th ed, 2006) ('Ministerial Guidelines')

⁵ *Mackenzie v Head, Transport for Victoria* [2020] VSC 328

⁶ *Mackenzie v Head, Transport for Victoria* [2020] VSC 328, [49]

⁷ Minister's Second Reading Speech on introduction of amendments to the Act: Victoria, *Parliamentary Debates*, Legislative Assembly, 6 October 2005, 1356–1358 (Rob Hulls, Minister for Planning), cited in *Mackenzie v Head, Transport for Victoria* [2020] VSC 328, [24]

⁸ Ministerial Guidelines, 2

environmental assessment must be ‘adequate’ and capable of directly a ‘reasonably intelligent and informed mind’ to the possible or potential consequences of carrying out or not carrying out (in this instance) the works.⁹

27. Furthermore, the treatment of ‘effects’ under the Ministerial Guidelines is broad. ‘Effects’ includes direct, indirect and cumulative effects.
28. We agree with the framing at note 6 in the Draft Scoping Requirements for Lindsay and Walpolla Islands, for example, that ‘effects’ relevantly encompasses ‘direct, indirect, combined, facilitated, consequential, short and long-term, beneficial and adverse effects’.
29. This scoping of relevant types of effects reflects a broad approach to ‘effects’ as required under the Ministerial Guidelines. As we advise elsewhere in this submission, indirect, facilitated and cumulative effects of the operation of the SDLAM (including supply measures under the VMFRP) are essential to proper assessment of effects and risks attached to the Projects. We are particularly concerned with the scope of ecological risks. As the Ministerial Guidelines note: ‘Assessment of potential project effects on, and risks to, ecological systems is a fundamental aspect of an EES.’¹⁰
30. As we indicate below, it is reasonably foreseeable that those effects and risks extend to large areas of the Murray River floodplain, downstream wetlands (including the Lower Lakes), as well as more direct effects and risks. In particular, the Projects, as part of the wider SDLAM, will facilitate managed overbank flows to only a small part of the Murray River floodplain (intermittent flooding is a natural feature of those floodplain ecological communities) and consequently large sections of the Murray River floodplain ecosystems will be stranded from a managed flooding regime. That is, those ecosystems will receive little benefit from the water recovered under the Basin Plan, and instead the flood-dependent ecosystems that lie outside the proposed works will depend on unmanaged flood events to maintain their health. These flood events are predicted to become less frequent in a changing climate. That consequence is critical to proper environmental assessment of these Projects. It poses a very high risk to the integrity of the Murray River floodplain ecosystems as a whole.¹¹ Their fate will be a green patches in a brown landscape.
31. For the purposes of informing future management of those floodplain ecosystems this broader set of environmental effects is relevant, inter alia, to public land managers responsible for that management.

The SDLAM as intrinsic to environmental effects and risks associated with the Projects: legal force and effect

32. The 36 supply measure projects will, and are intended to, enable and facilitate operation of the SDLAM. By extension, these 36 projects enable and facilitate a reduction in recovery of water for the environment by 605GL/yr across the MDB. In order words, the SDLAM allows

⁹ See *Prineas v Forestry Commission of NSW* (1983) 49 LGRA 402 and, generally, Bates *Environmental Law in Australia* (9th ed, 2016), [11.86]-[11.90]

¹⁰ Ministerial Guidelines, 16

¹¹ See Steinfeld and Kingsford ‘Disconnecting the floodplain’ (2011) 29 *River Research and Applications* 2 206

for higher rates of water diversion for consumptive uses than would otherwise occur. This legal and operational context is intrinsic to the Projects. The Projects function within complex legislative provisions, once described as a ‘legislative gymnastics exercise.’¹²

33. The SDLAM is a legislative scheme within the *Water Act 2007* and Basin Plan intended to function as a type of environmental offsetting mechanism. It comprises 36 notified projects across the MDB.¹³ The 9 VMFRP projects are supply measure projects within the SDLAM.
34. By the process of notification of these projects, subject to the satisfaction of the MDBA, the SDLAM enables higher rates of water diversion that would otherwise occur under the Basin Plan (reduction of water recovery for the environment, or water remaining for natural health and functioning). This occurs under a purported methodology directed to ‘ecological equivalence’ of the SDLAM pathway and a non-SDLAM baseline.
35. Following the design and elaboration of the notified SDLAM projects, these were given legal effect under the *Basin Plan Amendment (SDL Adjustments) Instrument 2017*.

Indirect effects of the Projects: enabling risk and ecological compromise to floodplain ecosystems

36. Leaving aside for the moment the merits or otherwise of the SDLAM and its technical methodologies, a key effect of the Projects is, by this indirect pathway, to avoid greater recovery of water for the environment.
37. A summary outline of environmental risks and effects indirectly arising from the Projects (including as part of the SDLAM) is set out below.
38. The SDLAM projects will result in 605 GL/yr of water not being recovered for the environment. This is 22% of the 2,750 GL/yr environmental water recovery intended under the Basin Plan.¹⁴
39. The volumes of water to be ‘offset’ by each of the SDLAM projects proposed for the Victorian floodplain have not been identified to enable assessment of the merits of each of the individual projects. This means that the public and decision makers cannot fully assess the costs, risks and benefits of each project.
40. The Environmental Equivalence Method that the MDBA and Victorian Government are using to argue that more intensive management of the VFRP sites offsets the loss of environmental water to other wetlands remains scientifically highly questionable as the evidence base has not been developed to determine if the modelled outcomes are reflected as real-world environmental outcomes. The method has not been published in international peer reviewed literature, and has not been through sufficient on-ground field trials to

¹² Walker *Murray Darling Basin Royal Commission Report* (South Australia, 2019), 291. Available at: <https://www.environment.sa.gov.au/topics/river-murray-new/basin-plan/murray-darling-basin-commission>

¹³ *Water (SDL Adjustments) Notice 2017*

¹⁴ Because of the 5% rule in the Basin Plan, the 605GL needs to be counterbalanced by 62GL of ‘efficiency measures’ water so that the overall reduction is a maximum of 543GL of the 2750GL.

determine if it is fit for purpose. This approach is based on Schedule 6 of the Basin Plan.¹⁵ This method was described in the report of the Murray–Darling Basin Commission as ‘experimental and unprecedented’ and with ‘alarming shortcomings’, including ‘a great deal of uncertainty in the results produced by the modelling’ and that ‘...the current Ecological Elements Scoring Method and the modelling behind it is inconsistent with the requirement that the MDBA have regard to the principles of ESD. Further...there is real doubt whether the supply measure SDL adjustment process can be considered to be based on ‘the best available scientific knowledge’¹⁶ The ecological elements spatial scoring system does not enable spatial trade-offs between environmental outcomes to be made without significant uncertainty and risk. The ecological elements framework was described by its proponents as ‘a highly simplified hydro-ecological model’ and ‘not intended for site-scale planning or assessment of works and measures scenarios.’¹⁷

41. The area of additional floodplain vegetation communities that would receive water is a measure of the environmental effectiveness of the VMFRP projects. The total area to be inundated (14,247 ha) is 23% of the total area of the projects, thus 77% of the area would not receive managed floods.¹⁸ Some 47% of river red gum forest and woodland (2,811 ha.) and 20% of black box woodland (3,311) within the project area would be flooded, representing only 3.2% of and 7.9% respectively of the MDB Basin Watering Strategy (‘BWS’) targets for the Murray Valley for maintenance of river red gum and black box floodplain wetlands.¹⁹ Thus, water requirements of 97% of river red gum and 92% of black box extent would have to be met by other supply projects and environmental water releases (that will be diminished by 605 GL/yr) or some other measures to reach the BWS targets.
42. Important indirect considerations of the Projects, as instrumental to the SDLAM, therefore include consequential effects and risks to River Red Gum and Black Box woodland ecosystems of the Murray River valley.
43. The proponent’s material does not assess how changing water availability due to climate change will impact on the effectiveness of the projects. There is already evidence that there is much less water in the rivers than expected under the Basin Plan. The attribution for the losses needs further research. The Wentworth Group of Concerned Scientists have found that observed flows on the River Murray at the South Australian border were 22% lower than expected flows under the Basin Plan from 2012/13-2018/19.²⁰ The MDBA in December

¹⁵ Overton, et al *SDL Adjustment Ecological Elements Method Trial Implementation Review* (Murray–Darling Basin Authority, 2015), 1. <https://publications.csiro.au/rpr/download?pid=csiro:EP156643&dsid=DS1>

¹⁶ Walker *Murray Darling Basin Royal Commission Report* (South Australia, 2019), 57; cf. also 60, 72, 302–304.

¹⁷ Overton, et al *Development of the Murray–Darling Basin Plan SDL Adjustment Ecological Elements Method* (Murray–Darling Basin Authority, 2014), iv, 145, <https://www.mdba.gov.au/publications/independent-reports/development-murray-darling-basin-plan-sdl-adjustment-ecological> cf. also: Davies, et al *Murray–Darling Basin Plan SDL Limits of Change Review. Independent Expert Advisory Panel Report* (Murray – Darling Basin Authority, 2017), 7, <https://www.mdba.gov.au/sites/default/files/pubs/FINAL%20Independent%20Expert%20Panel%20Murray%20Darling%20Basin%20Plan%20SDL%20Limits%20of%20Change%20Review.pdf>

¹⁸ Kirsch, E, et al ‘Lacking character? A policy analysis of environmental watering of Ramsar wetlands in the Murray–Darling Basin, Australia’ *Marine and Freshwater Research* (in press), 9

¹⁹ MDBA *Basin-Wide Environmental Watering Strategy* (2nd, 2019), 106

²⁰ Wentworth Group of Concerned Scientists *Assessment of river flows in the Murray-Darling Basin: Observed versus expected flows under the Basin Plan 2012-2019* (2020)

2020 acknowledged that inflows into Basin rivers over the past 20 years are 39% below the historical average flows to 1999/2000.²¹ Furthermore, the species preference curves used in the Ecological Elements framework do not account for the effects of climate change on the water requirements of species.

44. The contribution to the total increase in SDLs due to supply measures projects is not detailed adequately in Section 7.15 of the Basin Plan, other than the statement that it will be calculate based on ‘a repeat of the historical climate conditions’. This ‘repeats the error made by the MDBA in its ESLT determination, and the setting of the Basin-wide SDL that reflects it.’²²
45. There is no alignment between the proposed VMFRP flow regimes for operating the proposed infrastructure and the MDB stream flow indicators (‘SFIs’) that formed the basis of the ecologically sustainable level of take under the Basin Plan.²³ The proposed Victorian regime can be summarised as greatly increased frequency and duration of inundation for the VFRP sites compared to those intended in the Basin Plan. The flow regimes were criticised in an assessment of the projects by the MDBA because their frequency and duration generally exceed natural flows, which would be inconsistent with the Basin Plan.²⁴
46. The above finding raises doubts as to whether the flow regimes intended for the VMFRP sites can deliver the environmental benefits anticipated since the inundation may not be supported by flows proposed in the Basin-wide Environmental Watering Strategy (‘BWS’) in the River Murray or that are possible with available water, even where the SDLAM is not implemented. Further, the flows intended for the River Murray will be diminished by the loss of 605 GL/yr under the SDLAM.
47. There is already evidence of considerable degradation of wetlands due to inadequate environmental flows along the River Murray system downstream of the VMFRP sites. The failure to recover an extra 605 GL/yr in environmental flows is likely to exacerbate degradation of these wetlands. There are three Ramsar listed wetlands downstream of the Victorian sites, namely the Riverland, Banrock Station Wetland Complex, and The Coorong and Lakes Alexandrina and Albert.
48. In the example of the Riverland Ramsar site, the South Australian Government says: ‘Altered flow regimes are considered the most significant factor in deterioration of the ecological

²¹ MDBA *The Basin Plan 2020 evaluation* (2020)

²² Walker *Murray Darling Basin Royal Commission Report* (South Australia, 2019), 56

²³ Kirsch, E, et al ‘Lacking character? A policy analysis of environmental watering of Ramsar wetlands in the Murray–Darling Basin, Australia’ *Marine and Freshwater Research* (in press), Table 3, S3.

²⁴ Wentworth Group of Concerned Scientists *Requirements of SDL adjustment projects to ensure they are consistent with the Water Act 2007, Basin Plan 2012, MDBA policies and intergovernmental agreements* (2018); MDBA *Senate orders for production of documents—Environment—Murray-Darling Basin Authority—Adjustment mechanism projects—Assessments—Order agreed to on 7 February 2018—Letter to the President of the Senate from the Minister for Resources and Northern Australia (Senator Canavan), and attachments* (2018),

<http://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22publication%2Ftabledpapers%2F1c583c50-c828-4334-98f4-db01a74c7a35%22> [Accessed 19 April 2018]

character of the Site, followed closely by salinisation of the landscape. Recent vegetation health surveying ... has identified that the decline in vegetation health has continued beyond natural thresholds and the limits of acceptable change, indicating a possible change in the sites ecological character.’²⁵

49. In the example of The Coorong and Lakes Alexandrina and Albert Ramsar site, the South Australian Government stated: ‘The impacts of river regulation and water diversion have appeared slowly over time but are now accelerating.’ Extensive environmental degradation from lack of environmental flows is described, including increased salinity, acidification and loss of flora and fauna.²⁶ A decade later, at the end of the Millennium Drought (1997 – 2010), prolonged drought and upstream irrigation diversions had dropped water levels in the Lakes below sea level, exposing hazardous acid sulfate soil. Salinities increased dramatically in the Coorong, reducing populations of waterbirds, fish, macroinvertebrates and aquatic plants.²⁷ Under current upstream diversions, river flows have been insufficient to ensure the Murray Mouth remains open and dredging has been required. The Basin Plan requires there be sufficient flows for the mouth to be open 95% of the time without dredging. It is unlikely this requirement will be met, with the risk of long-term degradation of the Coorong.²⁸

Amendment to contextual setting as expressed in Draft Scoping Requirements

50. Description of the Projects must include their intended establishment and operation as part of the SDLAM, Basin Plan and *Water Act 2007* (Cth). General description should be included for example under section 1.1 of the Lindsay and Walpolla Island Draft Scoping Requirements.
51. Scoping requirements of project description under section 3.3 (Lindsay and Walpolla Island Draft Scoping Requirements) need to include requirement to set out specifically and as discrete points:
- a. The statutory context of the projects within the SDLAM, *Basin Plan 2012* and *Water Act 2007* (Cth) and the implications of this context to water management in the MDB (for example, the relationship between the SDLAM and recovery of water for the environment)
 - b. The technical tools employed to enable the operation of the SDLAM, such as the Ecological Equivalence Method, and their significance in development of the Projects.
52. Section 3.5 (Lindsay and Walpolla Island Draft Scoping Requirements) requiring identification of legislation, policy and strategies must include the requirement to set out the Commonwealth statutory context as noted above.

²⁵ SA Department of Environment and Heritage *The Riverland Ramsar Site Management Plan 2010-2015*, (2010), 3. Note, this is the latest plan published for the site.

²⁶ SA Department of Environment and Heritage *Coorong, and Lakes Alexandrina and Albert Ramsar Management Plan* (2000). Note, this is the latest plan published for the site.

²⁷ Kingsford, et al ‘A Ramsar wetland in crisis – the Coorong, Lower Lakes and Murray Mouth, Australia’ (2011) 62 *Marine and Freshwater Research* 255.

²⁸ Thom, et al ‘The role of coastal processes in the management of the mouth of the River Murray, Australia: present and future challenges’ (2019) 36 *River Research and Applications* 656

Amendment to Draft Scoping Requirements to account for indirect, cumulative and/or enabled effects and risks

53. Design and operation of the Projects in the context of the SDLAM and above legal regime are fundamental to their proposition. Clear and express consideration and response to these conditions should be a basic component of the scope of the EES. Presently, in our view, drafting of Scoping Requirements remains, at best, too generic and therefore insufficiently targeted and precise. We propose amendment to Drafting Scoping Requirements in light of this context.
54. In our submission, Scoping Requirements for EESs for both sets of assessable Projects need to include statement of the potential effects and risks to key ecological assets and key ecological functions across the Murray Valley floodplain resulting from, and enabled by, the Projects operating within the SDLAM.
55. Without limiting the above, Scoping Requirements for EESs for both sets of assessable Projects need to include statement of potential risks or effects to downstream ecological assets, specifically including *all* Ramsar sites, resulting from, and enabled by, the Projects operating within the SDLAM. Scoping Requirements need to refer not only to the Riverland Ramsar site but also Banrock Station Wetland Complex, and The Coorong and Lakes Alexandrina and Albert. Relevant environmental effects already proposed as within scope include one Ramsar site in South Australia (Riverland). Given the essentially informative nature of the Assessment Act, considered with matters set out in this submission, it is appropriate and necessary that potentially significant effects and risks outside of Victorian jurisdiction are within scope of the EES.
56. Scoping Requirements for EESs for both sets of assessable Projects need to include a statement of potential effects and risks to key ecological assets and functions arising from or relating to:
- a. risk and uncertainty associated with reliance on the Environmental Equivalence Method and the Ecological Elements Method as the assumed and underpinning basis of Project design (having regard to the statutory context of the Projects under the Basin Plan)
 - b. effects of climate change on the availability of water for each scheme and/or the effects of increased temperature and evapotranspiration on the water requirements of specific vegetation communities
 - c. Anticipated outcomes for floodplain vegetation communities within the Murray valley within and outside of each Project footprint, having regard to future watering regimes applying to each
 - d. Alignment, or lack of alignment, of proposed project flow regimes and relevant or applicable stream flow indicators, having regard to the significance of flow regimes to anticipated environmental benefits.

57. This submission is consistent with taking a systems- and risk-based approach to framing the EES (and ultimately an assessment) as the Ministerial Guidelines intend.²⁹ Consequently effects arising from operation of project as part of regional bundle of projects (VMFRP) and SDLAM are intrinsic to preparation of an EES in accordance with the guidance.

Scoping Requirements for direct and indirect effects or risks operating within the Project sites as currently described

58. The Projects may exacerbate blackwater events in a number of ways. Frequent inundation of the flood plain reduces litter build up and blackwater events.³⁰ If Project management infrastructure and changed inundation regimes reduce wetting of floodplains outside sites then blackwater events could be more severe when there is a large flood. Further, ponding water in VFR project infrastructure may reduce dilution and increase blackwater impacts.³¹

59. These potential or likely effects are reflected in the Drafting Scoping Requirements at section 4.2 (Lindsay and Walpolla Island Draft Scoping Requirements).

60. As noted above, the proposed extent of inundation under the projects is substantially less than the extent of water-dependent ecosystems (notably Red Gum and Black Box woodlands) within the target sites.

61. The Proponent's material does not assess the extent to which the proposed floodplain infrastructure (such as levee and stop banks) will prevent inundation of adjacent floodplain wetlands habitat in low to medium flood events and thus further degrade the wetlands outside the project areas. This impact was a problem that was not addressed in the precursor projects in The Living Murray program.³²

62. Scoping Requirements under section 4.2 (Lindsay and Walpolla Island Draft Scoping Requirements) may be responsive to the need to include this information in the EES.

Amendment of Scoping Requirements to include consideration of alternative design or operational options

63. Setting out alternatives in the context of the SDLAM and policy measures anticipated under the Basin Plan. Include constraints relaxation as a device and alternative as part of what EES is required to consider in scoping.

64. Project alternatives that warrant investigation include measures less reliant on infrastructure works in order to deliver environmental water and/or alternative combinations of constructed water combined with flow regimes enabling overbank flows and flooding of riparian ecosystems.

²⁹ Ministerial Guidelines, 14

³⁰ Baldwin, et al 'The effects of drying and re-flooding on the sediment and soil nutrient dynamics of lowland river-floodplain systems: a synthesis' (2000) 16 *Regulated Rivers: Research & Management* 5, 457

³¹ Pittock, et al 'Beguiling and risky: 'Environmental works and measures' for wetland conservation under a changing climate' (2013) 708 *Hydrobiologia* 1, 111

³² Ibid, 128

65. In our view, alternative project design includes implementation of ‘constraints relaxation’ strategies, in accordance with modelling proposed.³³
66. Scoping Requirements for EESs for both sets of assessable Projects need to include statement of environmental effects and risk profiles of alternative environmental watering strategies associated with:
- a. Constraints relaxation (as set out by the MDBA)
 - b. Constraints relaxation combined with environmental works projects (including modified environmental works projects)
67. In relation to the above points, Drafting Scoping Requirements (for example, at section 3.4 for Lindsay and Walpolla Island Draft Scoping Requirements) should be amended to require the identification and assessment of alternatives in the context of the Basin Plan, the SDLAM, and technical advice and options consequential to that scheme.

Aboriginal heritage effects

68. The Draft Scoping Requirements set out requirements for response to Aboriginal cultural heritage matters under section 4.3 (Lindsay and Walpolla Island Draft Scoping Requirements). These draft requirements are essentially intended to be responsive to tangible and intangible heritage considerations in or near the Project footprints. In this respect, it appears these proposed requirements are primarily intended to be responsive to Aboriginal heritage legislation as the framing device for ‘effects’.
69. As noted elsewhere in these submissions, the assessment process operates ‘at large’, subject to the Minister’s guidance, rather than merely responding to particular statutory approval schemes.
70. In our submission, EES scoping requirements confined to Aboriginal heritage law is restrictive and inappropriately confining.
71. Recently, all Victorian Traditional Owner bodies with Country likely to be affected by the SDLAM published a *First Nations’ Statement on Victorian Sustainable Diversion Limit Adjustment Mechanism supply Measure Projects*. That Statement emphasizes First Nations’ clear discontent with, and opposition to, the SDLAM projects in substance, as well as deep dissatisfaction to the methods and procedures by which they have been developed. The Statement declares (emphasis in original):
- We unequivocally **do not** consent to these projects on our Country. We want the Victorian Government to immediately cease development and implementation of these projects and to initiate genuine negotiations with our communities to advance our vision of a healthy river system.
72. Having regard to this Statement, its gravity and tone, in our submission the scoping of any EES for the Projects must be framed in a manner beyond Aboriginal heritage requirements.

³³ MDBA *Hydrologic Modelling of the Relaxation of Operational Constraints in the Southern Connected System: Methods and Results* (2012); MDBA *Constraints Relaxation Strategy 2013-2024* (2013)

Arguably, such an approach is a matter of law and norms set under international instruments. Under the *Charter of Human Rights and Responsibilities Act 2006* (Vic), Aboriginal persons and communities enjoy distinctive cultural rights, which broadly speaking concern connection to Country. Assessment of relevant ‘effects’ of the Projects must be, in addition to question of heritage, framed into terms of rights. To the extent this rights framework aligns with international norms, notably those under the UN Declaration of the Rights of Indigenous Peoples, those norms also frame this assessment process.

73. Consequently, subject to the views and opinions of affected First Nations, in our submission the Scoping Requirements must include:

- a. Identification and assessment of effects on the exercise and enjoyment of rights by Aboriginal people provided for under section 19 of the *Charter of Human Rights and Responsibilities Act 2006*.
- b. Identification and assessment of effects on norms and principles established under international law including, but not necessarily limited to, the exercise of First Nations’ (Indigenous peoples’) right to free, prior and informed consent in relation to development affecting their Country.³⁴
- c. Identification and assessment of effects on First Nations’ authority to speak for and negotiation on behalf of Country, whether this is viewed as an extension of the exercise and enjoyment of cultural rights, a matter of ‘social, spiritual, economic and cultural interests’,³⁵ or otherwise.

Other matters: membership of Technical Reference Group

74. The convening of a Technical Reference Group is identified at section 2.2 of the Lindsay and Walpolla Island Draft Scoping Requirements. This appears intended to be an ‘inter-agency’ body. The subject-matter of the Projects is patently highly technical and scientific in nature. Provision for any TRG should include, expressly, appropriate and comprehensive scientific expertise in those disciplines central to the assessment process, such as ecological and hydrological sciences. It may be advisable to have appropriately qualified legal advisors involved in the TRG process as well given the complex legal and regulatory arrangements underpinning the Projects.

75. Unless otherwise agreed to by First Nations’ representatives, consideration should be given to a distinct but authoritative arrangement for consultation and negotiation with First Nations. Ultimately, the form and terms of engagement with First Nations should proceed from those expressed by First Nations’ representatives.

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³⁴ See *UN Declaration on the Rights of Indigenous Peoples*, Art 32(2)

³⁵ Ministerial Guidelines, 17

