

21 September 2022

Kim Farrant Assistant Secretary Environment Assessment (Vic Tas) and Post Approvals Branch | Environment Approvals Division Department of Climate Change, Energy, the Environment and Water Ngunnawal Country, John Gorton Building, King Edward Terrace, Parkes ACT 2600

Dear Kim

# Subject: Victorian Murray Floodplain Restoration Project 2020/8648 Nyah Floodplain Restoration Project – request to vary proposed action

I refer to the proposed development of the Nyah Floodplain Restoration Project by Lower Murray Water (LMW) and referral EPBC 2020/8648 pursuant to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Pursuant to section 156A of the EPBC Act, LMW requests that the Minister accepts a variation of the original proposal.

## 1. Overview

The Nyah Floodplain Restoration Project (EPBC 2020/8648) was referred to the Department of Climate Change, Energy, the Environment and Water (then the Department of Agriculture, Water and the Environment) for consideration under the EPBC Act. On 26 June 2020 the project was decided to be a 'controlled action', requiring assessment and approval under the EPBC Act. The Delegate for the Minister for the Environment decided that the project would be assessed under the bilateral agreement between Victoria and the Commonwealth.

This request to vary the proposed action seeks to amend the original referred project area and action based on design development since the submission of the original referral. Pursuant to Section 156B of the EPBC Act, the character of the varied proposal is substantially the same as the character of the original proposal, including in relation to changes to:

- . the nature of the activities proposed to be carried out in taking the action; and
- the nature and extent of the impacts the action has or will have or is likely to have on the matter protected by each provision of Part 3.

The potential for additional direct impacts on relevant matters of national environmental significance (MNES) are considered unlikely, as explained in the following assessment.

















# 2. Consideration of a variation

This document has been prepared in accordance with Section 156A of the EPBC Act, which establishes the process for amending referred actions. Pursuant to Section 156A of the EPBC Act, this variation meets the requirements of the EPBC Regulations 2000 in that it includes:

- Details of the proposed variation to the action
- The reason for the proposed variation
- How the impacts of the proposed variation on matters of national environmental significance compare with those of the original proposal
- If applicable, the impacts of the proposed variation on matters of national environmental significance not considered in the referral or assessment of the original proposal
- If applicable, alternatives, mitigation measures and offsets to compensate for additional impacts on matters of national environmental significance.

The following sections assess the overall effect of the varied proposal in relation to each of the above points.

# 3. Details of the proposed variation to the action

The project concept is still as described in the original EPBC Act referral and it retains the core components of the project which include large and small regulating structures, containment banks, spillways, access tracks and temporary construction laydown areas that are required to facilitate managed inundation of up to 474 ha of floodplain habitats at Nyah.

The referral stated that:

The indicative locations of the proposed containment bank and access tracks are shown in the Attachment 2 – Project structures, construction and access. Some of these tracks would need to be upgraded as part of the project, the extent of which would be confirmed following outcomes from geotechnical investigations, complex cultural heritage assessment (as part of the Cultural Heritage Management Plan (CHMP) for this project) and ground truthing.

Borrow pits / quarry sites - Construction of the project would require the import of material (clay/rock). VMFRP is in the process of identifying possible borrow pits to acquire this material, with the objective of selecting locations as close as possible to the project on private land outside of the Nyah-Vinifera Park, while also avoiding and minimising impacts. Sites selection would consider potential impacts on matters of national environmental significance (MNES).

Although the project is substantially the same as that described in the referral, it has been refined during project development in response to availability of additional information including LiDAR, additional site assessment and design refinements to avoid sensitive values. The following variations to the project area are proposed and have been assessed in the Environment Report (ER):

- Addition of borrow site and borrow site access tracks (previously referred to as borrow pits)
- Access track changes including addition and removal of tracks, revisions to track alignments, changes to track widths and addition of turning circle areas to address constructability requirements

















Minor changes to the project footprint associated with refinements to the design and location of
infrastructure (for example, such as the need for the N4 bank and pipe, size of N7 laydown area),
and in response to actions to avoid and minimise impacts on Aboriginal cultural heritage and ecology
values.

The EPBC referral action area was based on an area of investigation of approximately 21.6ha, which provided for a buffer around the Construction Footprint proposed in the EPBC referral. This reflected that the referred design and Construction Footprint may change as design is refined. Attachment A compares the EPBC referral action area with the Construction Footprint of the currently proposed (varied) project. Table 1 summarises the changes between the referred project and the proposed project.

Component	Referred project	Proposed project				
Overview of areas	Overview of areas					
Construction Footprint	Approximately 7.8 hectares This area includes 5.6 ha for structures and containment banks and 3.2 ha for access tracks. This area excludes borrow sites. The referral estimated approximately 9.84 ha of native vegetation would be removed due to construction of the project.	Approximately 10.16 hectares This area includes 6.73 ha for structures and containment banks (including 1.19 ha for borrow site) and 4.79 ha for access tracks (noting the access track footprints overlap with some containment bank footprints). The construction of the proposed project would result in loss of up to 14.1 ha of native vegetation. This is to account for the additional canopy impacts along the construction footprint in line with DELWP's Guidelines for the removal, destruction or lopping of native vegetation.				
Maximum Inundation Area	488 hectares	475 hectares				
Summary of key c	hanges to infrastructure					
Borrow site	Site selection and evaluation was ongoing at the time of the referral and so footprints were not included	The borrow site location has now been confirmed and is located to the				

#### Table 1 Summary of changes between the referred project and the proposed project

















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Component	Referred project	Proposed project
	within the referred Construction Footprint.	east of the Murray Valley Highway (see page 1, Attachment A). Construction Footprint of borrow site is 1.19 ha.
Access tracks and existing tracks	Most of the containment banks would be built on the alignment of existing access tracks to provide operator access to the regulators. Once the containment bank has been built, the tracks would be reinstated on top of the bank with a gravel surface. A few short lengths of non-trafficable bank would be required at tie in points where the bank needs to match the natural river bank	<ul> <li>VMFRP has reviewed and rationalised the proposed access tracks for the project and also reviewed constructability requirements. This has resulted in:</li> <li>Removal of access track between the N4 regulator and Murray Valley Highway from the referred project area</li> <li>Addition of an access track to the borrow site,</li> <li>Revised alignment of N3, N4 and N5 bank track by using 1A tracks rather than creating new tracks.</li> <li>Access track to N7 realigned to existing track to minimise impacts.</li> </ul>

# 4. The reason for the proposed variation

The proposed variation is requested for the following reasons:

#### 4.1 Addition of borrow site footprints

The referral identified that the process of identifying and evaluating potential borrow sites was ongoing at the time of referral, with the objective of selecting locations as close as possible to the project on private land outside of Nyah Park.

The selection and evaluation process has been completed and the borrow site selected and included in the assessment is located to the east of the Murray Valley Highway on private land. The Construction Footprint of the borrow site is 1.19 ha.

#### 4.2 Changes to access tracks alignments and footprints

The project described in the referral indicated that existing access tracks and some new access tracks (to regulators N3, N4, N5 and N7 would be used for construction and operation. The Construction Footprint provided for a 5 m wide corridor along existing tracks to carry out maintenance works.

















As described in VMFRP has reviewed and rationalised the proposed access tracks for the project and also reviewed constructability requirements. This has resulted in both addition and removal of tracks and changes to track alignments. Some tracks have been reclassified as '1A' tracks which would be used in their existing condition with only maintenance works where required.

An alternative was identified for the access track to the N4 bank and pipe to be decommissioned, with access now occurring only from the east and not the west. This change includes the removal of the western access track from the Construction Footprint and the alignment of the eastern track has been changed to match an existing access track.

Table 2 details the type and length of tracks proposed.

Asset class	Purpose	New or existing track	Proposed total length (km)	Asset class	
1A	Construction/Operational access. Maintenance – dry weather	Use of existing tracks, including maintenance activities	4.3	1A	
3C	Construction vehicle – dry weather.	Upgrades to existing track	0.3	3C	
4B	Heavy construction vehicle – wet weather Operational/maintenance – wet weather.	Creation of new tracks	2.8	4B	
Total	- ·			7.3	

#### Table 2 Types of access tracks proposed for Nyah

















# 5. How the impacts of the proposed variation on matters of national environmental significance compare with those of the original proposal

#### 5.1 Matters of national environmental significance identified in the original referral

The original referral identified Matters of National Environmental Significance with the potential to be impacted by the proposed action as:

- Regent Parrot (Polytelis anthopeplus monarchoides) Vulnerable
- Threatened flora species:
  - o Austrostipa metatoris –Vulnerable
  - Rigid Spider-orchid (Caladenia tensa) Endangered
  - o Chariot Wheels (Maireana cheelii) Vulnerable
  - Menindee Nightshade (Solanum karsense) Vulnerable
  - o Slender Darling-pea (Swainsona murrayana) Vulnerable
- Threatened ecological communities:
  - o Buloke Woodlands of the Riverina and Murray-Darling Depression Bioregions
  - Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia
  - o Natural Grasslands of the Murray Valley Plains
  - Weeping Myall Woodlands
- Migratory species.

The original decision determined that the action was likely to have a significant impact on the following matters protected by the EPBC Act:

- Listed threatened species and communities (sections 18 & 18A):
  - The action is likely to impact habitat critical for the survival of both species and has the potential to directly and indirectly impact the species through multiple processes:
    - Murray Cod (Maccullochella peelii) Vulnerable
    - Silver Perch (*Bidyanus bidyanus*) Critically Endangered
  - The action is likely to impact roosting, foraging and breeding habitat:
    - Regent Parrot (eastern) (Polytelis anthopeplus monarchoides) Vulnerable.

## 5.2 Matters of national environmental significance identified through subsequent assessments

Technical specialist assessments including terrestrial and aquatic ecology studies have been carried out for the proposed project as part of the Victorian ER process and subject to review by the Technical Reference Group.

Along with the areas in the original referral, all areas that are subject to variation have had a desktop assessment undertaken to identify matters protected by the EPBC Act within the project study area. A likelihood of occurrence assessment was completed for each threatened or migratory species and each threatened community which the desktop assessment identified as either occurring, or having the potential to occur, within the project study area.















Fauna field assessments were undertaken over a number of years to inform the terrestrial ecology assessment and likelihood of occurrence of a species for the proposed varied project. Terrestrial fauna field assessments were undertaken within and around the project area, which includes the Construction Footprint and Maximum Inundation Area.

Flora field assessments within the proposed varied project Area of Investigation (defined as the Construction Footprint and a buffer around it which varied depending on the size of the footprint of the infrastructure being constructed) were undertaken to identify the presence of listed flora species.

Fish surveys were undertaken at four sites (eDNA) in the project area to determine the presence of fish species.

As a result of the assessment work undertaken, no additional matter protected by the EPBC Act were identified as present within the Area of Investigation for the project.

Details of all assessments are provided in the Aquatic Ecology and Terrestrial Ecology Specialist Assessments prepared for the ER.

#### 5.3 Comparison of predicted impacts to MNES

Table 2 presents a comparison of predicted impacts to MNES between the referred and current (varied) project. This comparison is based on the original referral and the outcomes of the technical specialist assessments carried out for the proposed varied action as part of the Victorian ER process.

















#### Table 2 Comparison of predicted impacts to MNES between referred project and varied project

MNES	EPBC Status	Impacts predicted for referred project	Impacts predicted for proposed project	Change in impact
Regent Parrot (Polytelis anthopeplus monarchoides)	Vulnerable	There are limited records of this species within 10 km of the construction footprint, and breeding activity has not been previously reported or mapped within the Nyah-Vinifera Park. As a precautionary measure, potential nesting habitat and nesting activity was investigated in the construction footprint within the prescribed targeted survey period (Magrath et al. 2010). During the targeted fauna surveys, observers closely observed for potential nesting trees and recorded any Regent Parrot activity in the immediate vicinity. No Regent Parrots were observed during targeted surveys, and no trees with potential to provide Regent Parrot nesting habitat were observed within the construction footprint. Significant impacts on this species were assessed as unlikely as the species are wide ranging, loss of vegetation habitat (approximately 7.42 ha) is relatively small in comparison to the 913 ha of the Nyah Park floodplain, and suitable surrounding habitat is widespread. In addition, the recovery plan recognises the importance of environmental watering in supporting River Red Gum habitat and breeding sites for Regent Parrot. The VMFRP aims to	The impacts remain largely unchanged from the potential impacts identified in the referral. The impact assessment undertaken has identified that most effect pathways are unlikely to occur and would be insignificant or minor if they did occur, resulting in a low residual impact. Minor impacts are possible to potential breeding and foraging habitats, but unlikely to be ecologically significant. The project is considered likely to benefit this species by providing water to floodplain habitats used by this species. The MNES Significance Assessment prepared as part of the ER has concluded that following adoption of the proposed EDS's it is unlikely that any significant adverse impacts on the Regent Parrot would occur due to construction or operational activities.	No material change from the referred project.



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MNES	EPBC Status	Impacts predicted for referred project	Impacts predicted for proposed project	Change in impact
		maintain and enhance the condition of River Red Gum habitats and broader floodplain and wetland habitats which are likely to assist with the recovery of the Regent Parrot.		
Murray Cod <i>(Maccullochella peelii)</i>	Vulnerable	The referral identified that Murray Cod were unlikely to occur in the referral area and suitable habitat was not present within the inundation extent. Therefore, it was assessed as unlikely for a significant impact to occur. However, it was identified that the species was likely to benefit from environmental water when present.	Murray Cod are considered present in the study area. Mitigation measures are proposed for each of the potential impacts identified during the construction and operation of the project which would avoid, minimise and manage the likelihood or consequence of an impact to Murray Cod. The impact assessment undertaken has identified that with the proposed mitigation and monitoring implemented, it is unlikely that any significant residual adverse impacts on Murray Cod would occur due to construction activities or operation of the project.	No material change from the referred project.
Silver Perch ( <i>Bidyanus bidyanus</i> )	Critically Endangered	The referral identified that Silver Perch were unlikely to occur in the referral area and suitable habitat was not present within the inundation extent. Therefore, there was unlikely for a significant impact to occur. However, it was identified that the species was likely to benefit from environmental water when present.	Silver Perch are considered present in the study area. Mitigation measures are proposed for each of the potential impacts identified during the construction and operation of the project which would avoid, minimise and manage the likelihood or consequence of an impact to Silver Perch. The impact assessment undertaken has identified that with the proposed mitigation and monitoring implemented, it is unlikely that any significant	No material change from the referred project.



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MNES	EPBC Status	Impacts predicted for referred project	Impacts predicted for proposed project	Change in impact
			residual adverse impacts on Silver Perch would occur due to construction activities or operation of the project.	
<ul> <li>Threatened flora species</li> <li>Austrostipa metatoris – EPBC listed–Vulnerable</li> <li>Rigid Spider-orchid (Caladenia tensa) - EPBC listed– Endangered</li> <li>Chariot Wheels (Maireana cheelii) - EPBC listed–Vulnerable</li> <li>Menindee Nightshade (Solanum karsense) - EPBC listed–Vulnerable</li> <li>Slender Darling-pea (Swainsona murrayana) - EPBC listed-Vulnerable</li> </ul>	Various	The project is not likely to have an impact on these four species as the findings from the Flora and Fauna Assessment (R8,2020) determined that these species are unlikely to occur within the construction footprint, and/ or there is a lack of suitable habitat within the construction footprint.	Further field surveys did not identify these threatened flora as present of possibly occurring in the project area.	No material change from the referred project.
<ul> <li>Threatened ecological communities:</li> <li>Buloke Woodlands of the Riverina and Murray-Darling Depression Bioregions</li> <li>Grey Box (<i>Eucalyptus microcarpa</i>) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia</li> <li>Natural Grasslands of the Murray Valley Plains</li> </ul>	Various	None of these communities is consistent with vegetation mapped or modelled within either the construction footprint or inundation area.	No further field surveys identified these ecological communities as present.	No material change from the referred project.



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MNES	EPBC Status	Impacts predicted for referred project	Impacts predicted for proposed project	Change in impact
<ul> <li>Weeping Myall Woodlands</li> <li>Migratory species</li> <li>Fork-tailed Swift, Apus pacificus,</li> <li>Latham's Snipe, Gallinago hardwickii,</li> <li>Common Greenshank, Tringa nebularia,</li> <li>Marsh Sandpiper, Tringa stagnatilis,</li> <li>Sharp-tailed Sandpiper, Calidris acuminata,</li> </ul>		During the time of the 2019 surveys it was determined that none of these species are considered likely to occur within the construction footprint, mostly due to the lack of recent records within the construction footprint and/or a lack of suitable habitat present at the time of the survey to support these species. Long-term effects on the habitat of aquatic ecosystems associated with the project are	Significant impacts considered not likely during construction or project operation. There is no indication that the Construction Footprints or Maximum Inundation Area constitute important habitat for any migratory species or support an ecologically significant proportion of a population of any migratory species. Seven of the eight migratory species that may	impact
<ul> <li>Glossy Ibis, <i>Plegadis</i> <i>falcinellus</i></li> <li>Australian Gull-billed Tern, <i>Gelochelidon</i> <i>nilotica macrotarsa</i>,</li> <li>Caspian Tern, <i>Hydroprogne caspia</i>.</li> </ul>		expected to be mostly positive asdefined through the specific ecological objectives and targets for the project.	visit the project area are wetland-dependent species. Suitable habitat for those species is not present in the Construction Footprints and is not present in the Maximum Inundation Area generally but occurs there when the area is inundated. As wetland-dependent species, those species are likely to benefit from environmental watering, rather than being adversely affected. The eighth species is most likely to fly over the project area but is unlikely to show any direct association with terrestrial habitats.	





# 6. If applicable, the impacts of the proposed variation on matters of national environmental significance not considered in the referral or assessment of the original proposal

As a result of the assessment work undertaken during preparation of the ER, no additional matters protected by the EPBC Act were identified as present within the Area of Investigation for the project:

# 7. If applicable, alternatives, mitigation measures and offsets to compensate for additional impacts on matters of national environmental significance.

Where a significant value was found to be present and had potential to be impacted by the project, consideration was given to alternatives to avoid or minimise the potential effect. Multidisciplinary workshops were held to consider the potential for effects on significant values and identify potential project alternatives (typically through refinements to the design or construction method), or management controls such as no-go zones that would be applied to avoid or minimise effects on the significant values.

Feedback was sought from relevant stakeholders as part of this process. Further follow up consultation was carried out by VMFRP where required with Traditional Owners, project partners and directly affected private landholders.

Actions to avoid and minimise impacts on significant values have been implemented during the ER process for the Nyah project. The alternatives assessment for the Nyah project has resulted in:

- Adoption of 10 alternatives that avoid or minimise adverse effects on significant terrestrial ecology values, including enabling the retention of 55 large and 30 very large canopy trees
- . Identification of one alternative that was not considered feasible due to constraints such as adverse effects on other significant values or technical and economic feasibility.

In addition to the alternatives discussed in the workshop, VMFRP has reviewed and rationalised the proposed access tracks for the project. This has resulted in some tracks being classified as '1A' tracks which would be used in their existing condition, with only maintenance works where required, instead of upgrading or constructing new access tracks.

Environmental Delivery Standards (EDS) prescribe how benefits of the project would be maximised while avoiding, minimising and appropriately managing potential impacts. This includes mitigation measures, consultation requirements and performance management to minimise potential impacts to human health and the environment.

















## 8. Conclusion

The project character and concept is still as described in the original EPBC Act referral and it retains the core components of the project which include large and small regulating structures, containment bank, spillways, access tracks and temporary construction laydown areas that are required to facilitate managed inundation of up to 474.7 ha floodplain habitats at Nyah. The referral identified that a borrow site location was still being considered for the project. The borrow site has now been included in the project and assessments have been undertaken. Some new access tracks are no longer proposed.

The nature of the activities proposed are the same and the nature and extent of the impacts are anticipated to be similar. Direct and indirect impacts of the proposed project have been assessed as part of the ER. To further avoid, minimise and manage impacts on environmental values, technical specialists, in consultation with various stakeholders, have developed mitigation measures referred to as EDS.

It is therefore requested that the variation be accepted under section 156B of the *Environment Protection and Biodiversity Conservation Act 1999*.

Yours sincerely

DocuSigned by: Josh White -909E68070F6C432...

Josh White Project Director

















Attachment A: Comparison of the EPBC referral action area with the proposed varied project Construction Footprint







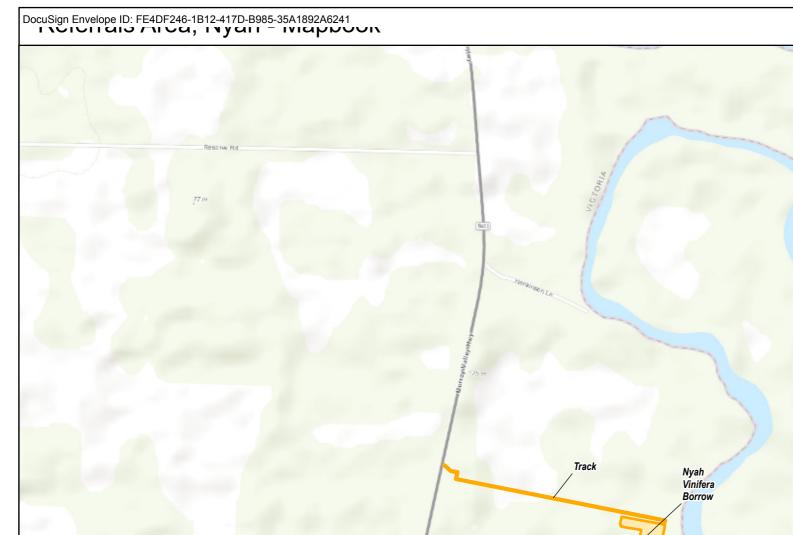


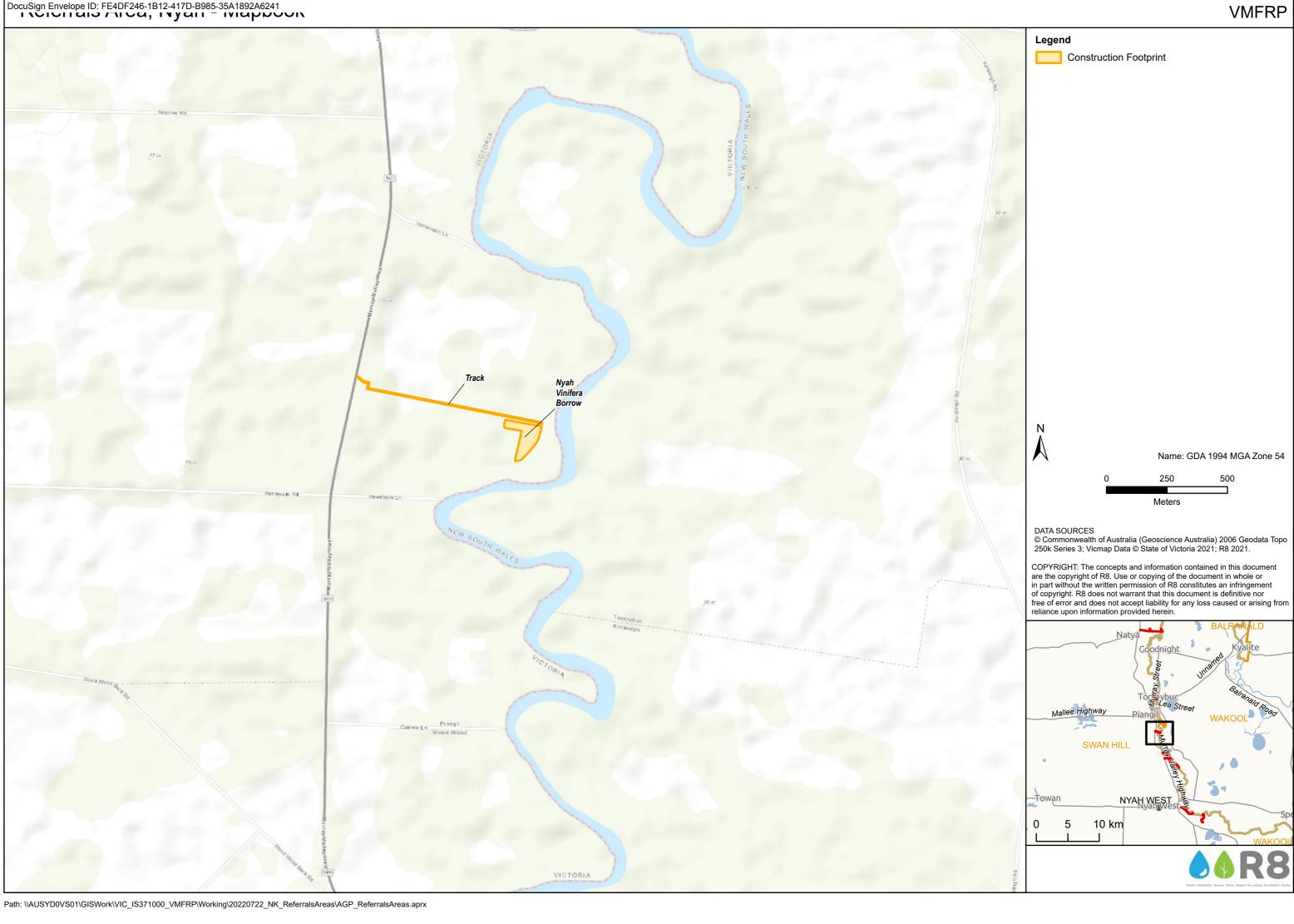


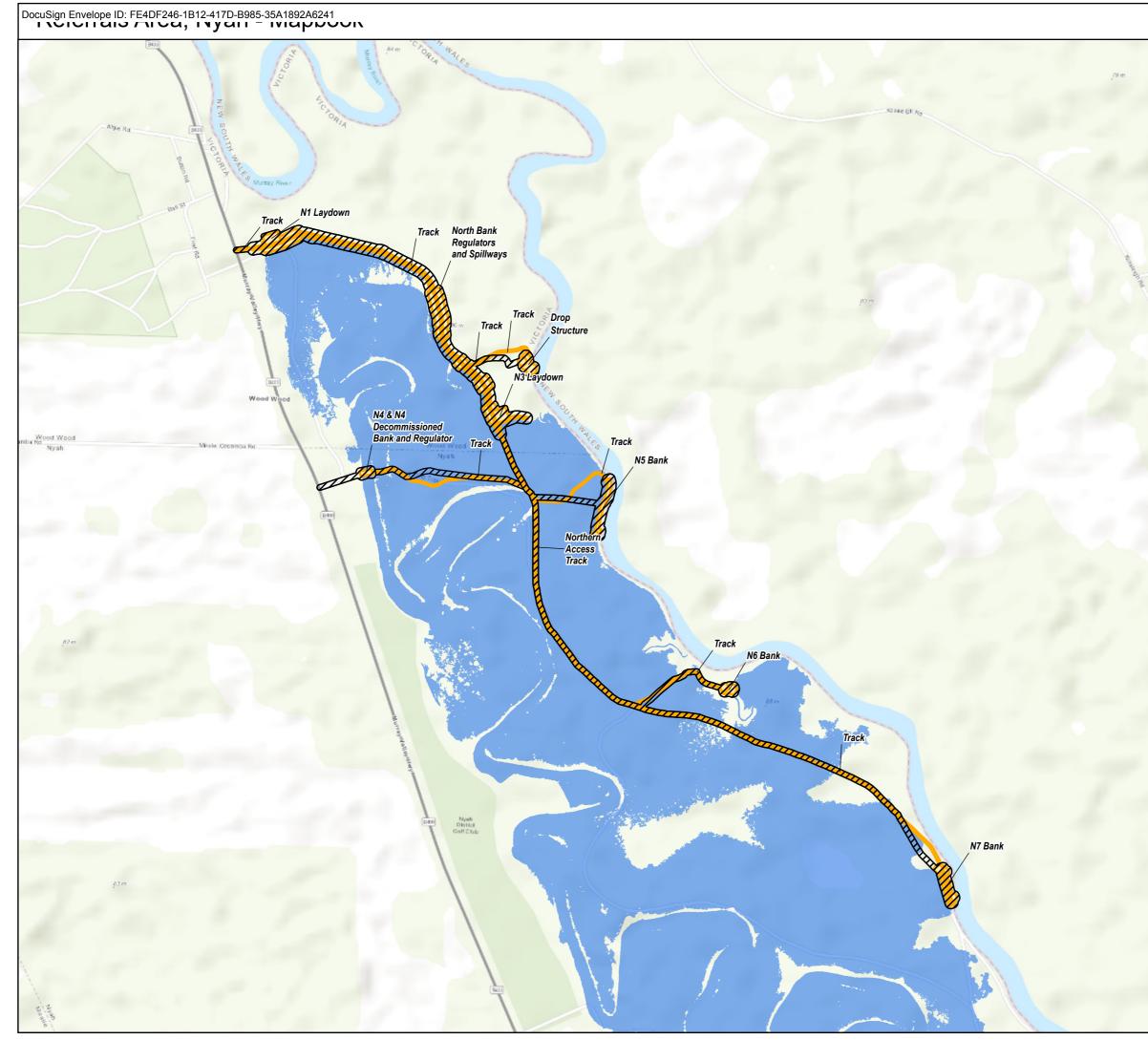




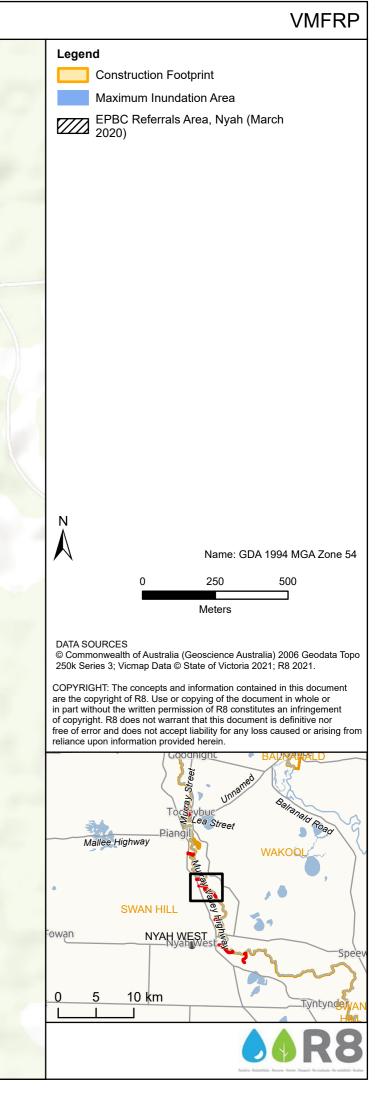


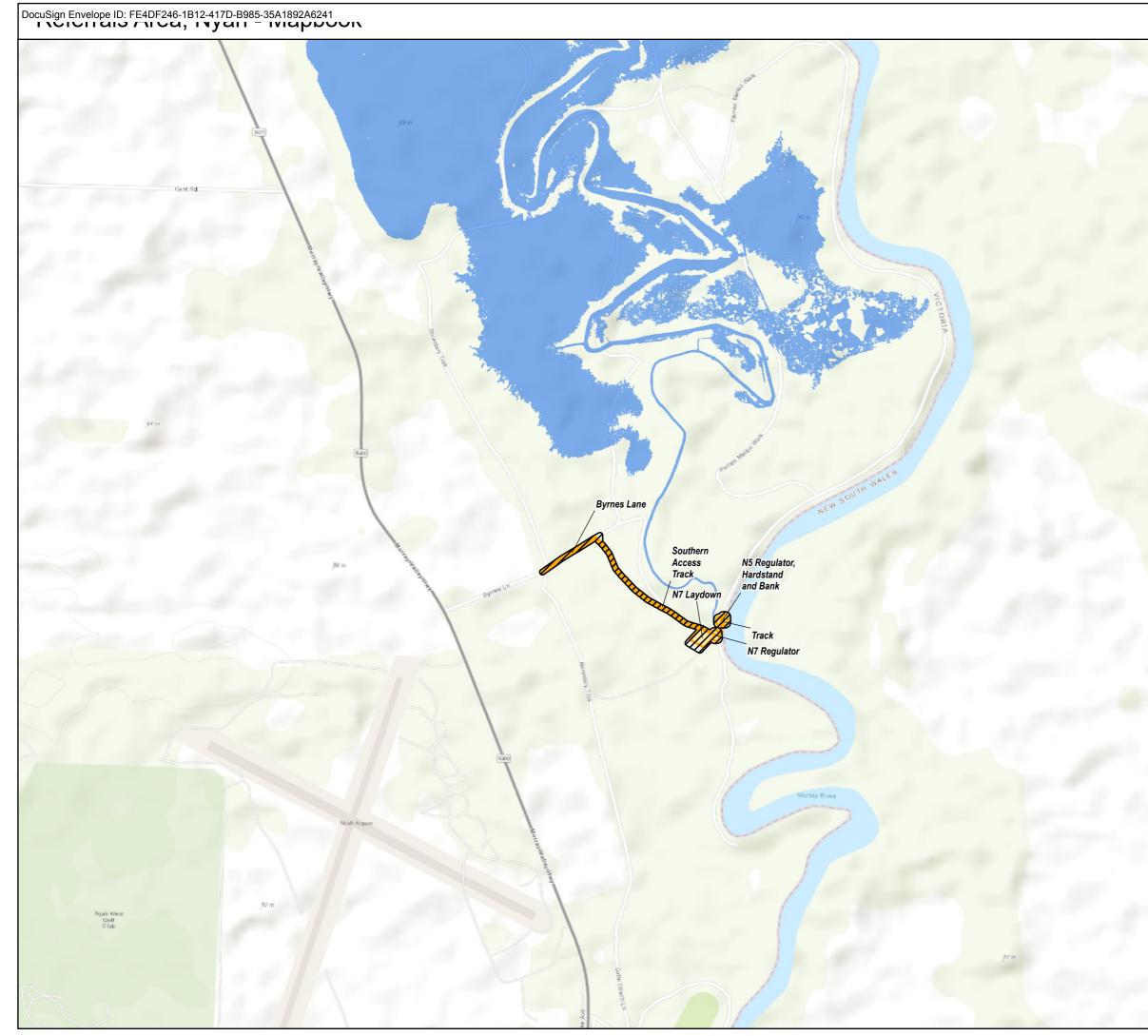






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