



Guide to Environmental Control Map

DMS-SD-015/10.0

Supporting Document – Applicable to Infrastructure and Place

Divisional Management System

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Document history

Version	Date of approval	Doc. control no.	Summary of change
3.0	16 Dec 09	707847_1	Updated to reflect restructure of P&E group and document owner
4.0	1 Jul 10	800964_1	Reformatted for TCA transition and revised governance structure.
5.0	18 Nov 11	800964	Reformatted for Transport Projects transition and revised governance structure.
6.0	01 Apr 13	2389669	Section 7 updated – the ECM examples in this document are replaced by better ECMs.
7.0	14 Apr 15	800964	Updated to be published to TfNSW website
8.0	28 Apr 16	800964_18	Annual Review, TSR under Section 3 updated; changed also made to reflect the change in organisation structure.
8.1	11 Dec 2018		Rebranded to IP.
8.2	22 Aug 2019	800964_29	DMS update
9.0	10 December 2019	800964_31	Reviewed and no change; update review due date
10.0	12 July 2021		Reference to Environmental Incident Procedure updated.

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1. Purpose and scope

An environmental control map (ECM) is a document prepared to assist in the planning and delivery of projects delivered on behalf of TfNSW. An ECM identifies the location of physical protection measures, work method controls and monitoring requirements to minimise the impact of project activities on the environment and community in and adjoining a specific work area.

Detailed construction methodologies are generally not advanced at the planning approval stage of a project and are only developed once a preferred delivery partner is selected and detailed design and construction planning commences. The ECM allows for a focused risk assessment of the environmental and community impacts of specific work areas and activities, and is a practical document to assist the delivery partner in implementing environmental plans and policies.

This document defines IP's standard in relation to the development of an ECM.

2. Definitions

All terminology in this document is taken to mean the generally accepted or dictionary definition.

Acronym / specific term used	Definition
Delivery partner	The project alliance, managing contractor, design and construct contractor, construct-only contractor or other relevant party responsible for the delivery of a project on behalf of Infrastructure & Services
ECM	Environmental control map
EIA	Environmental impact assessment
EMR	Environmental management representative
IP	Infrastructure and Place Division
TfNSW	Transport for New South Wales
TSR	TfNSW Standard Requirement

3. Accountabilities

The Director Planning, Environment and Sustainability is accountable for this standard. Accountability includes authorising the document, monitoring its effectiveness and performing a formal document review.

Project directors are accountable for ensuring the requirements of this document are implemented within their area of responsibility and the delivery partners comply with the requirements of this document to the extent they are required under TfNSW Standard Requirements (TSR).

Contractors are accountable for following this document, where this standard forms a part of their contract.

4. Environmental control map development

The purpose of the ECM is to document the environmental and community controls to be applied to project activities and work areas. The ECM details specific control measures identified in the EIA and on-site management actions identified as part of construction work method and risk assessments. The ECM must specify:

- where environmental controls are located and how they are utilised
- where and when environmental monitoring is to occur
- how environmental control measures are communicated to project personnel.

An ECM represents the practical application of environmental controls, statutory compliance and licence requirements (if applicable) at the work site. The ECM is the culmination of a project's environmental impact and risk assessment processes. The ECM should be a very concise 'statement of action' and not a 'plan for further action'. If required by IP, the delivery partner appointed to a project must prepare the ECMs. The delivery partner must utilise an experienced environmental practitioner to assist with the preparation of ECMs. The ECMs should be drafted using a computer based drawing or graphical tool such as CAD or use electronic aerial photographs.

In accordance with relevant Conditions of Approvals, ECMs must be prepared and implemented prior to construction commencing for a project or component of a project and as a part of the detailed construction work method planning, and they must be endorsed by the project EMR prior to the works commencing. The ECMs of a project are to be reviewed or updated regularly as the nature of the work site or work activity substantially changes. The ECMs should be placed on site sheds or other central locations for reference by all project personnel.

ECMs should be used in project inductions, toolbox talks work site set-up, reviewing ongoing environmental performance, included as information in tender documents to subcontractors where applicable and in support of ancillary environmental approvals (i.e. council, Department of Planning and Environment, etc). The EMR uses the ECMs to regularly assess project environmental performance.

5. Content of an environmental control map

An ECM should contain the following:

- the worksite layout and boundary, including entry/exit points and internal roads
- north point, legend, scale, names of major roads and landmarks
- key project traffic routes within and adjacent to the worksite and key traffic management measures (traffic controllers, cueing zones, warning signs, etc)
- location of adjoining land-use and nearest noise sensitive receivers
- dust control measures
- location and type of sediment and erosion control measures, including size/capacity of detention basins and wheel wash facilities
- location of monitoring equipment (e.g. dust, noise, vibration monitors) and frequency of monitoring/inspections
- location of noise barriers for construction

- location of environmentally sensitive areas (e.g. threatened species, critical habitat, contaminated areas, heritage zones, etc)
- location of site offices
- vegetation and trees to be protected
- vegetation and trees to be removed, with any actions required prior to felling
- location of worker car parking and any parking restrictions
- location of known heritage (indigenous and non-indigenous) items
- location of spill containment and clean-up equipment
- location of stormwater drainage and watercourses leading to/from the worksite
- location of worksite waste management facilities
- restrictions on certain activities (e.g. Rock breaking and driven piling)
- key project stages and timeframes for the works
- contact details (including after hours) for key staff (including environment manager and environmental management representative)
- hours of work applicable to the worksite (including deliveries and any restrictions on high noise generating activities)
- Construction Response Line number (1800 775 465)
- Infrastructure & Place Infoline number (1800 684 490)
- reference to, and location of, operating procedures for pollution control equipment and other environmental control measures (e.g. water treatment plants, etc)
- document control and approval details
- key environmental risk issues and the specific mitigation measures
- existing major services (both under and above ground) that may be in conflict or high risk i.e. high pressure gas main
- contours/elevation points and/or direction of slope/s.

6. Related documents and references

Reference Documents and References

[Environmental Management System Manual DMS-ST-052](#)

[Environmental Management Representative Guideline DMS-ST-050](#)

[Environment Incident Procedure EMF-13-PR-0001](#)

7. Example of environmental control map

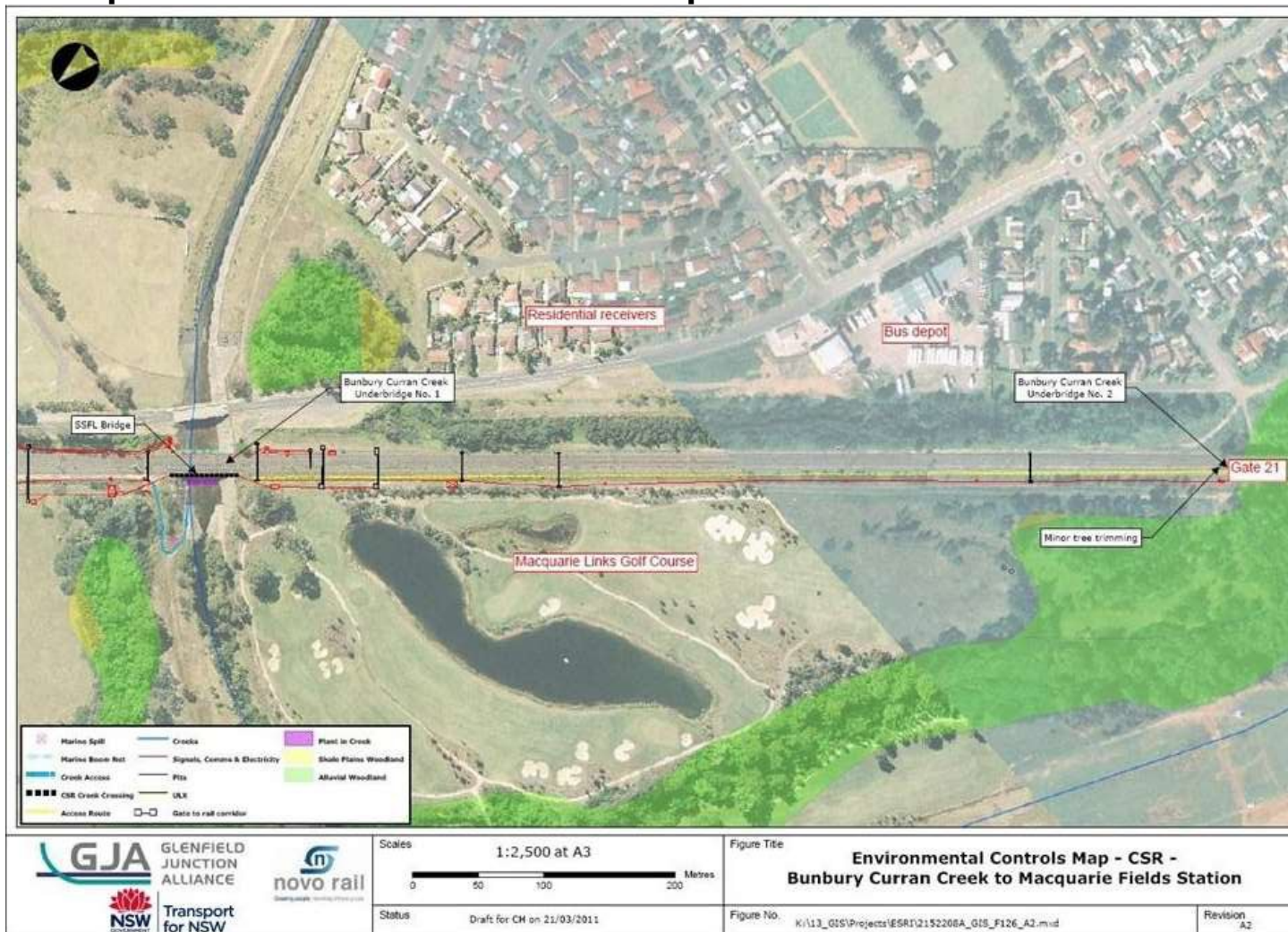


Figure 1 ECM example 1.

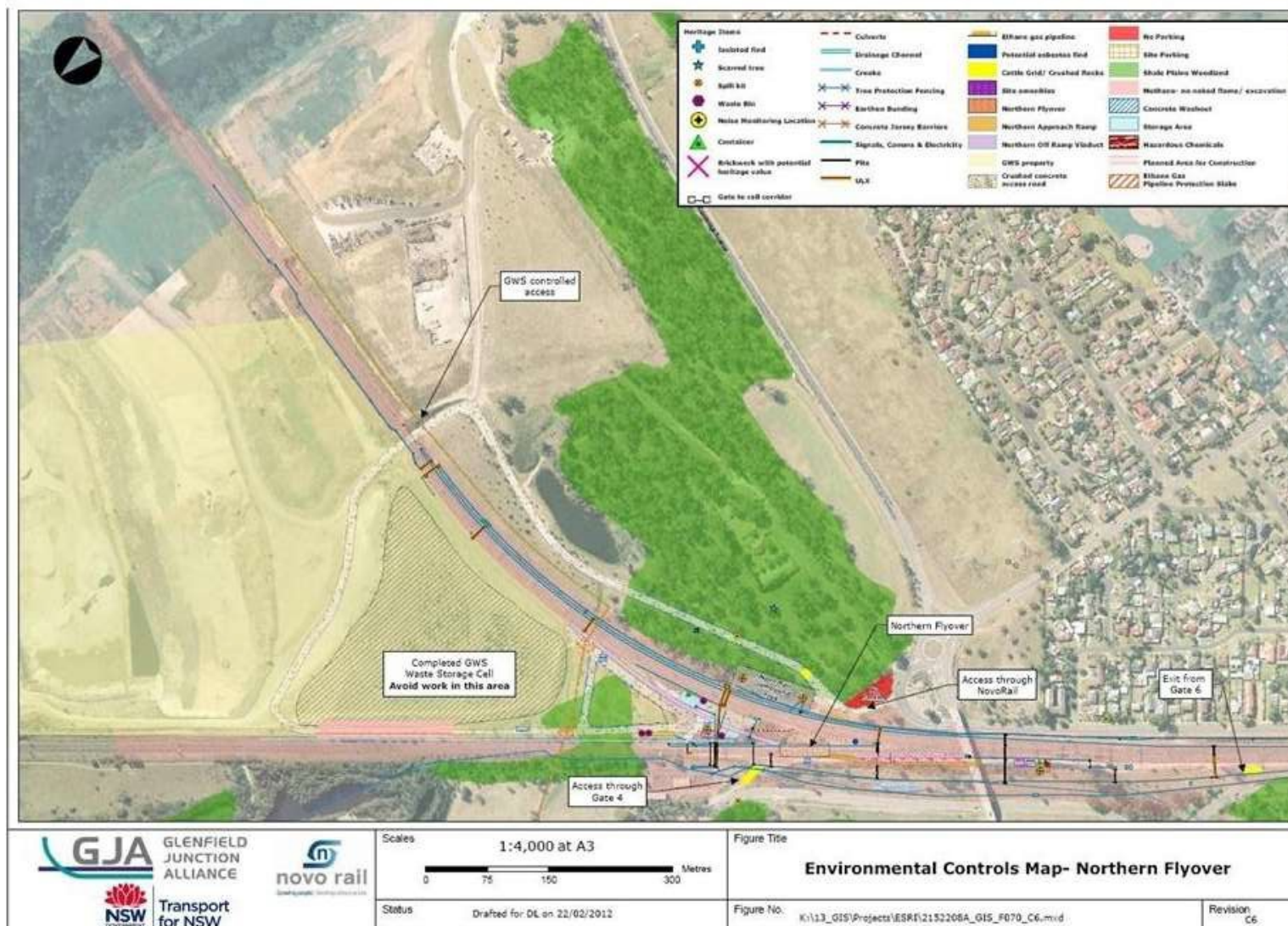


Figure 2 ECM example 2.

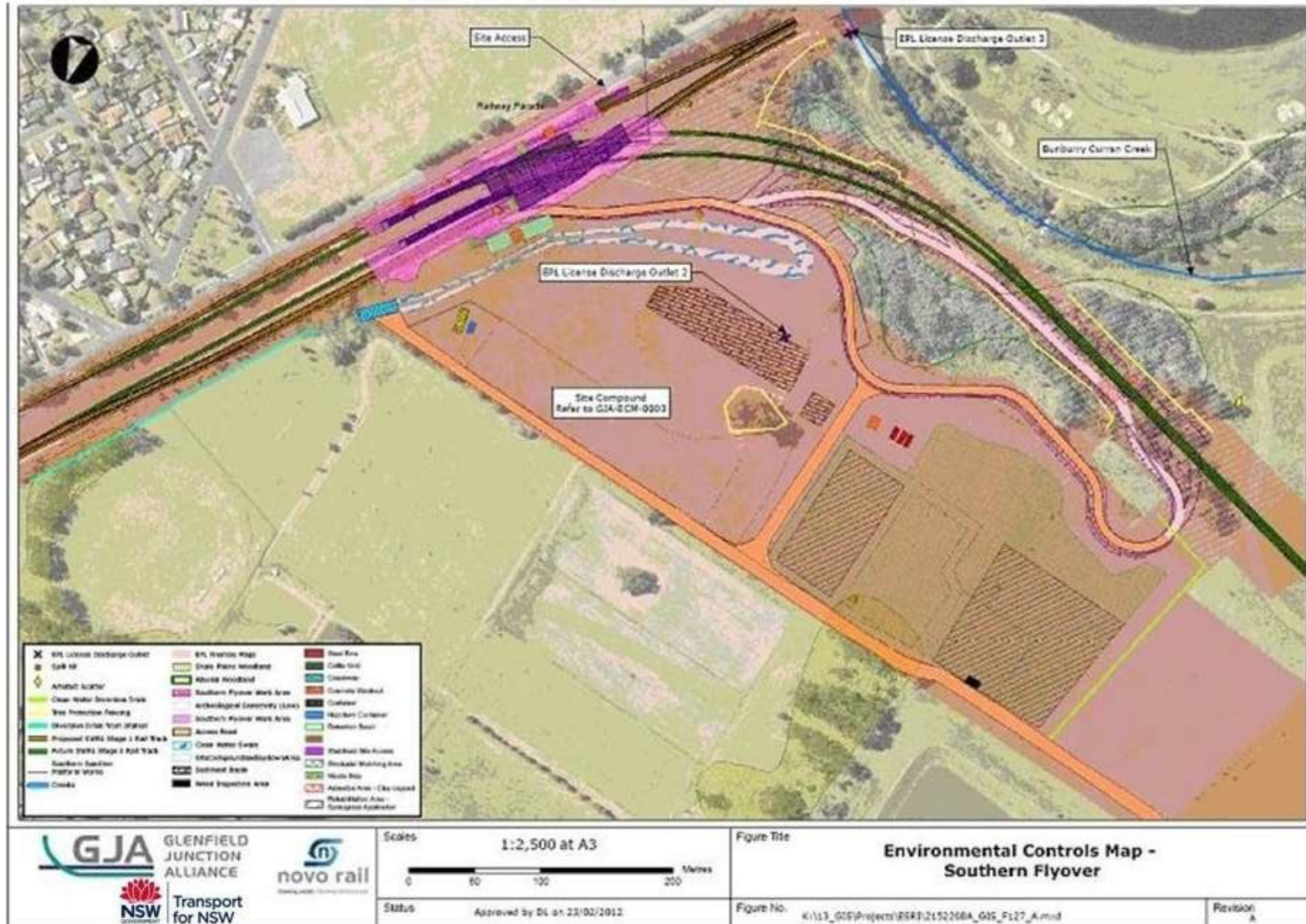


Figure 3 ECM example 3.