

A Construction Environmental Management Plan (CEMP) identifies all the potential environmental risks or impacts that can arise during construction and the measures put in place to manage and minimise these impacts.

A CEMP should be tailored to the project and contain site-specific information.

This guidance note provides a recommended document structure to assist with the preparation of a CEMP for works within the Swan Canning Development Control Area. The guideline is not intended to be a standard template and some items may not be applicable to every project.

1 Context and scope of works

1.1 Site description

Include a site plan (aerial map) that shows the works area and what measures have been put in place to manage any environmental impacts, for example:

- site images
- entry and exit points and vehicle/machinery routes
- location of emergency spill kits
- laydown and stockpile areas
- temporary structures and lighting
- temporary fencing and signage
- protected vegetation
- bunded areas for chemical storage and refuelling

- cofferdams, silt curtains or any other measures proposed to reduce risk of turbidity and sediment plumes
- contact details of essential site personnel

1.2 Scope of works

Provide an overview of the construction (and/or demolition) methodology, materials to be used and sequence of construction.

In-river works such as piling, riverbed excavation/disturbance, dredging, coffer dam and causeway (access road) construction will require a more detailed methodology and management controls.

Vegetation pruning or removal will require further information such as photos to identify what vegetation is to be removed/pruned and the clearing extent. An arborist report may also be requested.

1.3 Timeframes and responsibilities

Detail the timeframes and responsibilities for tasks identified, contact details of essential site personnel, construction period and operating hours.

Include the provision for the Department of Biodiversity, Conservation and Attractions (DBCA) to be notified in writing of the intended commencement date at least 7 days prior to the commencement of works. This notification should be emailed to rivers.planning@dbca.wa.gov.au

Include commitments that all contractors and personnel involved in the works, activities, operations and/or development approved by the Department of Biodiversity, Conservation and Attractions (DBCA) are to be familiar with the conditions and requirements of the approval at all times.

In case of damage or pollution events, DBCA is to be contacted on 9278 0981 or the Department of Transport and Major Infrastructure on 9480 9924 (Maritime Environmental Emergency Response Team). List the person(s) responsible for reporting any incidents.

2 Public access, safety and site security

Provide details of any pedestrian and cyclist pathway closures, alternative access routes and site security.

3 Machinery management and vessel/vehicle management

Provide details of vessels/vehicles and machinery to be used, how it will access the site (include vessel launching/landing areas) and storage requirements for the duration of works. Any carriers (vehicles, machinery, equipment, or items that could pick up soil) brought onto the site must be completely free of mud, clods or slurry of soil, and plant material to protect uninfected areas from weeds and disease such as Phytophthora dieback.

Refuelling of vessels or water-based platforms (e.g. pontoons and barges) should be at a

licensed refuelling facility. Any proposals to refuel vessels or water-based platforms outside of a refuelling facility will be assessed on a case-by-case basis. Justification and mitigation measures will need to be provided to minimise the risk of fuel spills directly to the river.

Refuelling of land-based vehicles or machinery should be undertaken outside the DCA. Where refuelling is proposed inside the DCA, provide details of the refuelling location and measures to contain and minimise the risk of fuel spills within the foreshore reserve and the river.

Refuelling areas should be setback from the river, in a bunded area with an impermeable base.

4 Waste management

Provide details regarding the location of waste to be collected on site, the potential sources of waste material, how it will be contained, and when and how the material will be removed.

5 Storage and application of chemicals

Provide a list of chemical and other hazardous materials to be used and where they will be stored/bunded.

Provide the location details of emergency spill kit(s) - these should be kept onsite at all times.

6 Acid sulfate soils

If the project site is located within an acid sulfate soils (ASS) risk area, advise whether the construction activities will have the potential

to disturb ASS and the measures/controls proposed to treat and manage ASS. Refer to DWER's [Acid Sulfate Soils Guideline Series](#) for further guidance.

7 Contaminated land

If the project site is listed on DWER's [Contaminated Sites Database](#), advise whether the works will have the potential to disturb the site. Describe the controls in place to manage the site in accordance with the *Contaminated Sites Act 2003*.

8 Dewatering

Note whether dewatering will be discharged to sewer. If dewatering effluent is to be discharged directly or indirectly (via the stormwater system) to the river, a separate management plan is required to be submitted to DBCA. The Plan should be consistent with [DBCA Corporate Policy Statement No. 50](#).

9 Site demobilisation

Provide details of site clean-up and reinstatement following construction works, including duration required to fully demobilise from the site.

10 Monitoring and evaluation

It is recommended that regular audits and inspections (including progress photos) are carried out and documented to ensure that the construction works are in accordance with the CEMP. These reports should be sent to DBCA (rivers.planning@dbca.wa.gov.au).

Any environmental incidents (e.g. breaches in silt curtain, fuel spill, injury etc) are to be recorded and reported to DBCA.

Where significant works are being undertaken, DBCA will request that a close-out report and as-constructed surveys are provided following site reinstatement.

Works in/on water

The following environmental controls are specific to works in/on water.

11 Turbidity management

Outline the activities that may disturb the riverbed or lead to sedimentation and/or turbidity issues and the site-specific controls that will be put in place to manage these impacts. This section should address the most appropriate means of managing turbidity plumes (in the river).

For works that have the potential to generate turbidity plumes (e.g. piling, dredging, excavation), a silt curtain should be used to contain and manage plumes. Silt curtain(s) should be visually monitored daily to ensure that its integrity is maintained. Where sediment plumes occur outside of the silt curtain, work must stop whilst the plume is addressed (e.g. additional silt curtains may be required), and work should only recommence once the integrity of the turbidity management device is restored.

Turbidity management devices should not be removed until all disturbance activities have ceased, and any plumes have settled.

12 Protection of river from deleterious inputs

Provide details of any construction activities that may lead to adverse water quality impacts and outline measures to manage or minimise these impacts.

For construction works over water that can generate rubbish, dust or other deleterious matter, it is recommended that an encapsulation method (e.g. vacuum attachment or suspended cloth) is used to capture material.

13 Protection of flora and fauna

Piling activities in the river have the potential to impact marine fauna, such as dolphins, due to the noise and vibrations generated from the operations. Piling operations should include a soft start up procedure at the commencement of each piling sequence. It is preferred that a vibration pile driver with a soft start-up, rather than a drop hammer, be used to install the piles to minimise underwater noise. A contractor/marine mammal observer should keep a constant watch for dolphins during piling operations and record any dolphin sightings (including any near misses or incidences). A copy of this record may be requested by DBCA. No pile driving shall start if a marine mammal (dolphins) is within 200m of the site and piling activity shall cease if it comes within 50m of the site and shall not recommence until it has moved more than 200m away or has not been observed for 20 minutes. Large-scale piling works will likely be

required to adhere to the [Underwater Noise Guidelines](#).

Removal of underwater structures will require additional detail regarding *Hippocampus subelongatus* (West Australian seahorse) relocation (if required) or evidence that the species is not present.

Works that will impact the riverbed will require detail of controls to protect seagrass, if present, at the site.

Works on land

The following environmental controls are specific to works on land.

14 Sediment, erosion and dust control

Detail what works have the potential to cause erosion and sedimentation issues, and how the site will be stabilised. Also provide details of any drainage lines (including stormwater infrastructure) within or adjacent to the works area, and outline measures to prevent erosion and sedimentation. Site specific controls may include sediment fencing, erosion control matting, sediment traps at stormwater drain inlets and daily recovery of sediment from outside the works area.

15 Clean fill

For any fill (including recycled materials) proposed to be brought onto site, provide evidence that it is certified clean or uncontaminated, and free from rubble, weeds and diseases. Refer to DWERs [fact sheet regarding clean fill](#).

16 Protection of vegetation

Identify trees and other vegetation in close proximity to the proposed works, and measures to protect the vegetation. All trees (including roots) within the vicinity of the works will need to be protected in accordance with Australian Standard AS 4970-2009: Protection of trees on development sites. Tree protection zones should be identified and fenced to restrict access and to avoid damage to the trees during works.

Supporting resources

Sediment and erosion control: <https://www.perthnrm.com/resource/sediment-management/> (Perth NRM, n.d.)

Clean fill: [Amendments to the Environmental Protection Regulations 1987 - clean fill and uncontaminated fill](#) (DWER, 2019)

Acid Sulfate Soils Guideline: [Acid Sulphate Soils Guideline Series](#) (DWER, 2015)

Herbicides: [Herbicides: guidelines for use in and around water](#). (Cooperative Research Centre, 2005)

DBCA Corporate Policies and Guidelines

DBCA Corporate Policy Statement No. 50 – [Planning for Dewatering Affecting the Swan Canning Development Control Area](#)