



APPENDIX M

VEGETATION MANAGEMENT PLAN

Vegetation Management Plan

Central Sydney Industrial Estate incorporating Downer Sustainable
Road Resource Centre

Vegetation Management Plan

Client: VE Property Pty Ltd

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1.0 Introduction

AECOM Australia Pty Ltd has been engaged by VE Property Pty Ltd (VE Property) to prepare a Vegetation Management Plan (VMP) for the construction and operation of the proposed Central Sydney Industrial Estate incorporating Downer Sustainable Road Resource Centre (the estate) within the former Western Area of the Viva Energy Clyde Terminal (Clyde Terminal) (the proposal). This VMP has been prepared to support the SSD application and, specifically, to outline management measures described and proposed in the biodiversity assessment. The VMP specifically relates to the 30 metre Riparian Corridor along the southern boundary of the site to Duck River.

1.1 Description of site and proposal

The application proposes:

- The staged subdivision of the western area of Lot 100 DP 1168951 into eight new industrial lots.
- Prepare the lots via earthworks and civil works for future re-development (by future applications).
- Stage 1 (Sustainable Road Resource Centre) – occupy the newly created Lot 6 and construct and operate the following on the lot:
 - RAP processing operations.
 - Asphalt plant.
 - Reconomy facility.
 - A modern bitumen product manufacturing plant.

The proposed lot layout is outlined in **Figure 1-1** below.

It should be noted that a development consent for the remediation of soils within the Western Area has recently been approved by the Department of Planning, Industry and Environment (DPIE). This will involve the disturbance of soils within the Site, including the removal of vegetation as required (mostly exotic regrowth).

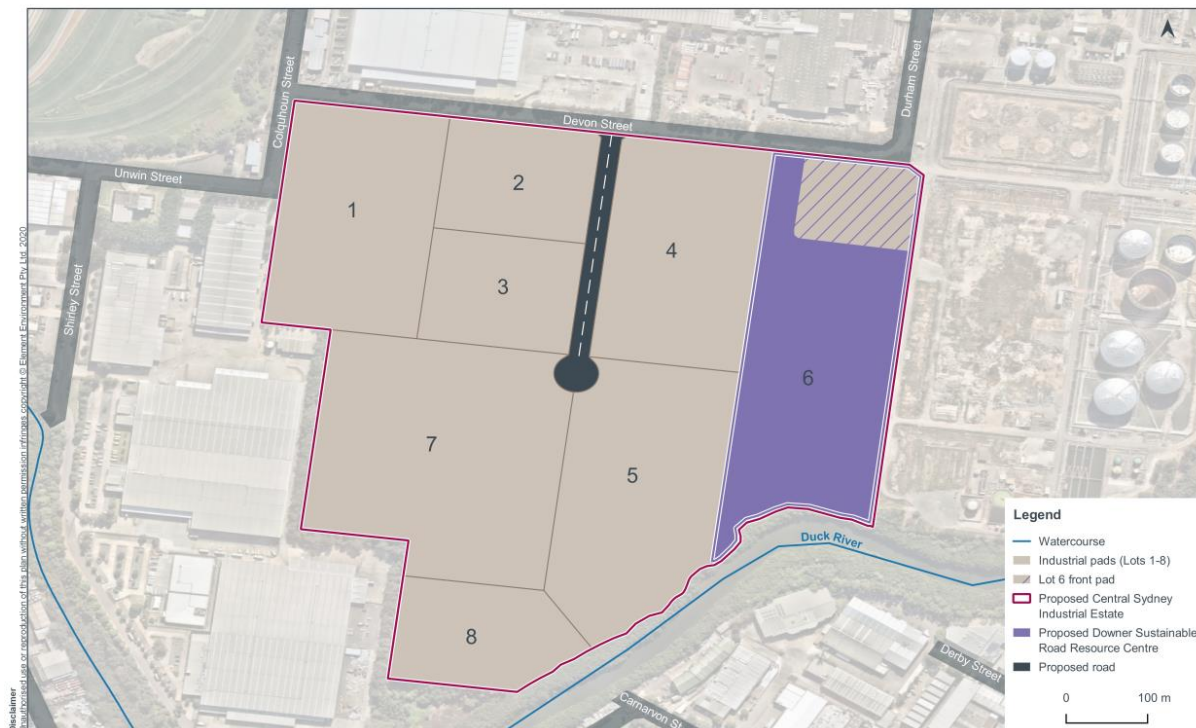
Central Sydney Industrial Estate Incorporating Downer Sustainable Road Resource Centre
STATE SIGNIFICANT DEVELOPMENT - ENVIRONMENTAL IMPACT STATEMENT

Figure 1-1 Proposed subdivisions (Source: Element)

The subject site is located at Clyde, NSW, approximately 16.5 kilometres from the Sydney CBD (as the crow flies). The Site is located on Devon Street and is within the Paramatta City Council Local Government Area (LGA).

The proposal is located within land zoned as 'IN3 Heavy Industry' and is surrounded on three sides by other industrial premises, including the remainder of the Clyde Terminal to the east. To the south is Duck River, which is fringed by mangroves on both sides. The other side of the river is occupied by more industrial development. A larger area of mangroves is present to the east, with the Clyde Terminal wetlands area approximately 1 km to the northeast. Parramatta River is beyond the wetland area, approximately 1.4 km to the northeast. The nearest substantial area of green open space is Sydney Olympic Park approximately 2.2 km to the east.

The Western Area itself is generally flat, having been the subject of extensive historic earthworks to accommodate the previous refinery. The site retains a minor slope towards the south, facilitating drainage towards Duck River. Part of the eastern portion of the Site also drains towards the wastewater treatment system for the remaining elements of the Clyde terminal, however this drainage pattern would be changed under the proposal to drain stormwater directly to Duck River.

Nearly all ex-refinery infrastructure has now been removed from the Western Area, including tanks and pipes. Areas of hardstand and small retaining walls and bunds are still present in some areas, though these will be removed as part of the remediation works or the subject SSDA, if approved.

Parts of the subject site fall within land classified as 'coastal wetland' under *State Environmental Planning Policy (Coastal Management) 2018* (refer to **Figure 1-2**). The development of the site proposes to retain a 30 metre riparian corridor along the southern boundary of the site where it interfaces with Duck River, therefore avoiding any development within any areas designated as 'coastal wetland'.

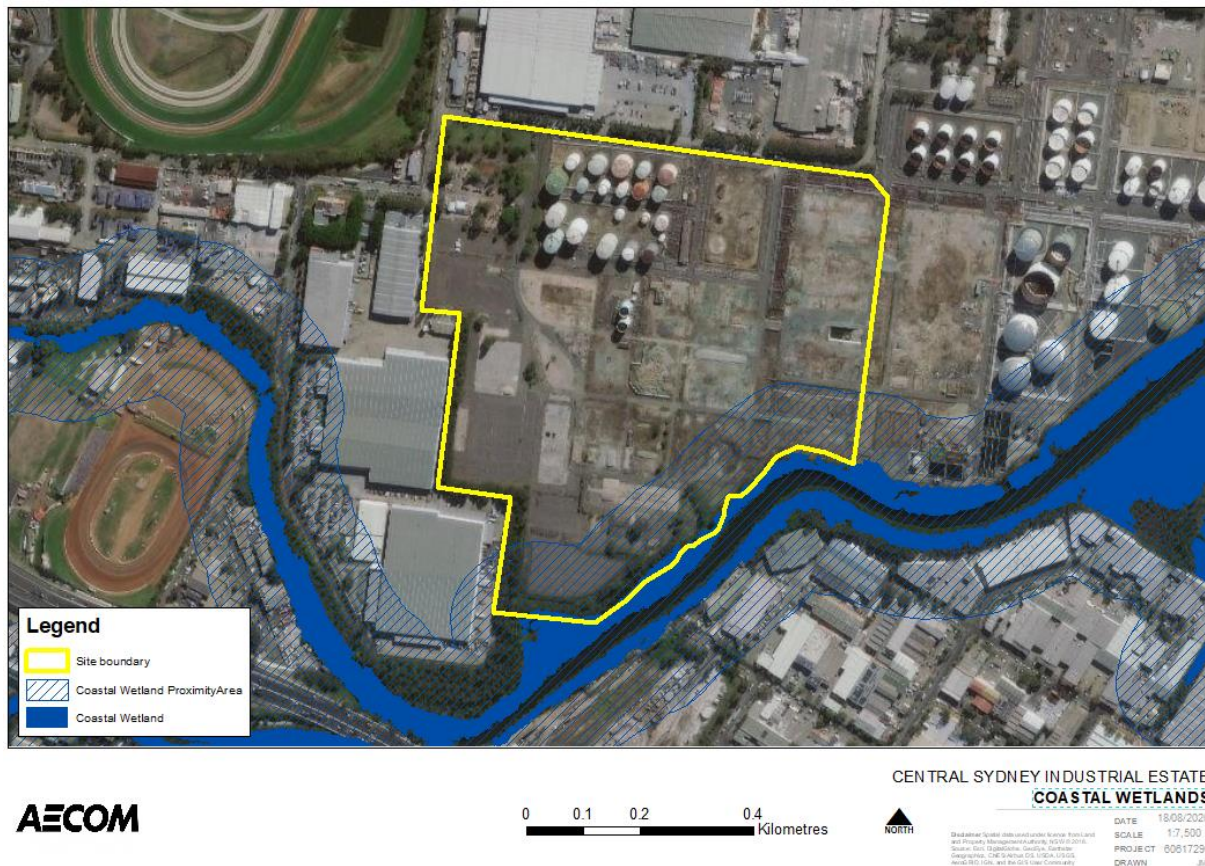


Figure 1-2 Coastal Wetland areas and coastal proximity areas

The subject site is fringed by vegetation consisting of four vegetation communities:

- **PCT 910:** Swamp Oak swamp forest fringing estuaries, Sydney Basin Bioregion and South East Corner Bioregion. This community is equivalent to Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions - Sydney Basin, which is listed as endangered under both NSW and Commonwealth legislation.
- **PCT 920:** Mangrove Forests in estuaries of the Sydney Basin Bioregion and South East Corner Bioregion. This PCT is not equivalent to any threatened ecological community, though it is noted that mangroves are classified as protected marine vegetation under section 205 of the *Fisheries Management Act 1994*.
- **PCT 1126:** Saltmarsh in estuaries of the Sydney Basin Bioregion and South East Corner Bioregion. This community is equivalent to Coastal Saltmarsh in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions, which is listed as endangered under NSW legislation and vulnerable under Commonwealth legislation.
- **Urban native/exotics, weeds and exotics.**

These communities are mapped in Figure 1-3 below.

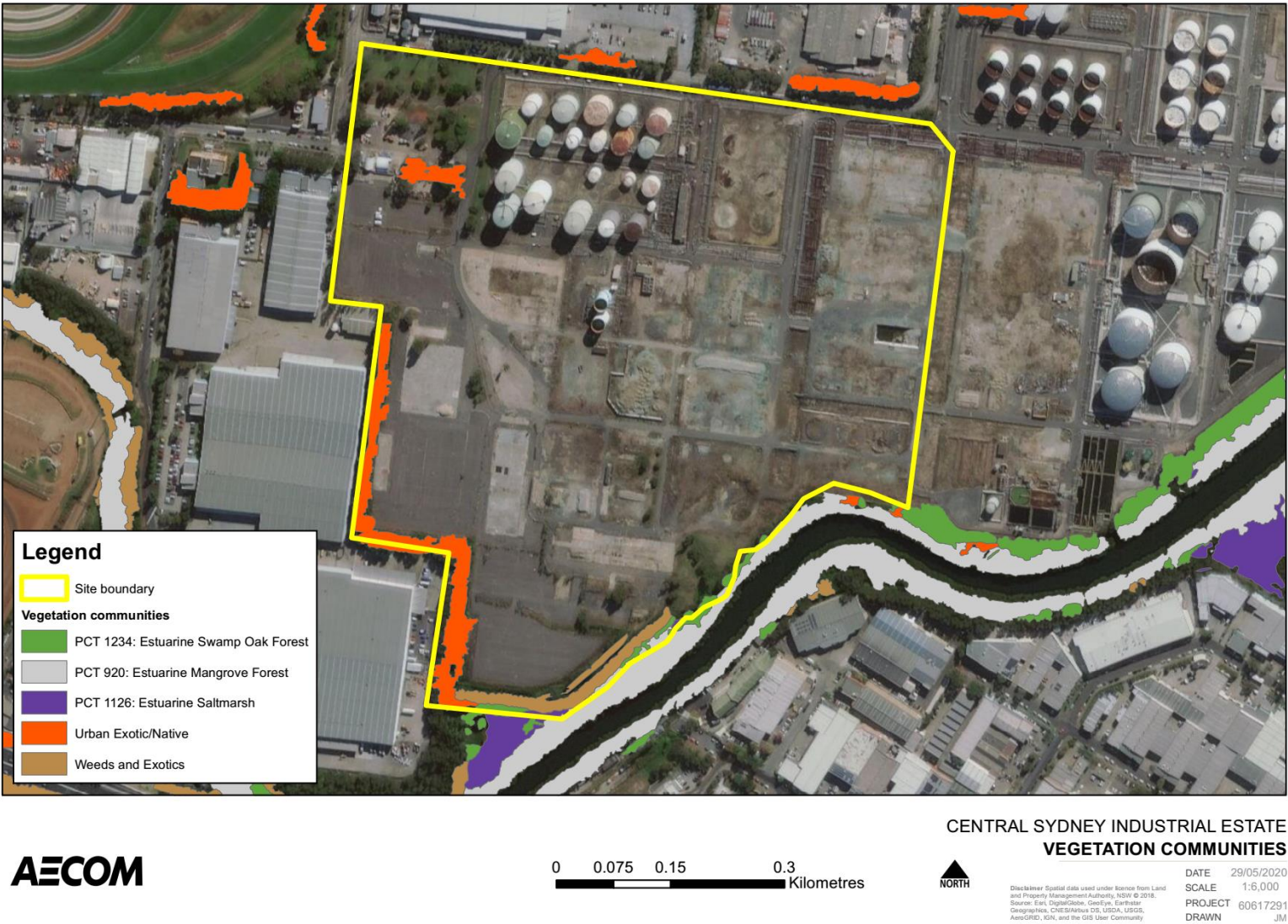


Figure 1-3 Plant community types located in and around the subject site.

Given the 30 metre riparian corridor to be provided along the southern boundary of the site none of the above native PCTs would be directly affected by the proposed subdivision, or by future direct adverse impacts associated with development. Measures to ensure these communities are managed appropriately are outlined in **section 1.4** below.

1.2 Potential threats

The proposal would include the construction of roads and drainage infrastructure along with earthworks generally to provide for future building pads. These activities may potentially result in the following biodiversity impacts:

- increased site runoff and sedimentation
- potential for introduction of weeds during construction
- additional light spill and noise impacts, and
- potential for increased vehicle strike.

The proposed subdivision includes a 30 metre riparian management zone along the southern perimeter. This buffer would provide for a number of positive environmental outcomes for the site, including:

- Avoiding clearing of the majority of the mature native vegetation present within the broader Site, including the riparian corridor along Duck River and associated threatened ecological communities and protected marine vegetation.
- Avoidance of areas designated as 'coastal wetland' under *State Environmental Planning Policy (Coastal Management) 2018*
- Avoidance of areas of 'biodiversity value' according to the biodiversity values threshold tool under the *Biodiversity Conservation Act 2016*
- Maintenance and potential promotion of riparian values along Duck River in a region with few areas dedicated to environmental conservation land use types.

The separate SSDA recently approved for the remediation of soils within the Western Area may require the removal of most, if not all, existing vegetation outside the 30 metre riparian zone. The proposed subdivision would not affect the need for this clearing, positively or negatively.

The proposal would provide for the future development of industrial buildings and infrastructure within the site, as well as the development of the Downer Sustainable Road Resource Centre. Whilst measures are included within this SSDA to manage water quality and other offsite impacts associated with the industrial estate, the specific environmental impacts associated with future developments within these lots would be the subject of their own development assessment.

1.3 Aims and objectives

This VMP has the following aims and objectives:

- Generally achieve the relevant objectives identified within the *Paramatta Local Environmental Plan 2011*
- Generally achieve the relevant objectives of other related environmental legislation and policies, including the *Biodiversity Conservation Act 2016*, the *Biosecurity Act 2015* and *Water Management Act 2000*
- Mitigate development impacts on bushland/natural areas
- Provide measures to protect and enhance the existing native vegetation within the riparian management zone.

1.4 Controlled activity approval

The proposal is state significant development and as such the need for a controlled activity approval under the *Water Management Act 2000* (WM Act) is turned off by section 4.41(1)(g) of the *Environmental Planning and Assessment Act 1979*. Despite this, this VMP seeks to retain consistency with the requirements of a controlled activity approval with view to achieving the same standards of environment management of waterfront land.

The following definitions are provided in the WM Act:

- **Waterfront Land** includes the bed and bank of any river, lake or estuary and all land within 40 metres of the highest bank of the river, lake or estuary.
- **River** means:
 - a. any watercourse, whether perennial or intermittent and whether comprising a natural channel or a natural channel artificially improved, and
 - b. any tributary, branch or other watercourse into or from which a watercourse referred to in paragraph (a) flows, and
 - c. anything declared by the regulations to be a river,whether or not it also forms part of a lake or estuary, but does not include anything declared by the regulations not to be a river.
- **Controlled Activity** means:
 - a. the erection of a building or the carrying out of a work (within the meaning of the *Environmental Planning and Assessment Act 1979*), or
 - b. the removal of material (whether or not extractive material) or vegetation from land, whether by way of excavation or otherwise, or
 - c. the deposition of material (whether or not extractive material) on land, whether by way of landfill operations or otherwise, or
 - d. the carrying out of any other activity that affects the quantity or flow of water in a water source.

2.0 Site Management

2.1 Identification of management zones

The Site would be divided into two management zones for the duration of works associated with the proposed subdivision:

- **Riparian management zone** – lands associated with the riparian corridor along Duck River, including areas mapped as coastal wetlands under the *State Environmental Planning Policy (Coastal Management) 2018*, as well as areas occupied by PCT 910: Swamp Oak swamp forest fringing estuaries, Sydney Basin Bioregion and South East Corner Bioregion (listed as endangered under both NSW and Commonwealth legislation). The riparian management zone has been designed to be a minimum of 30 metres in width from the top of bank, in accordance with the requirements for a third order watercourse, as outlined in the NSW Office of Water guidelines for riparian corridors. Note that in this case the top of bank is not immediately obvious due to the very gradual slope of the banks and presence of mangroves. As such the mean high water mark has been taken as ‘top of bank’ for the purposes of this report
- **Construction management zone** – the remainder of the Site where development of the industrial estate would take place (including the Downer Sustainable Road Resource Centre), consisting of the construction of roads, utilities and drainage infrastructure, along with for future building pads.

An overview of each area is provided in **Figure 2-1**.

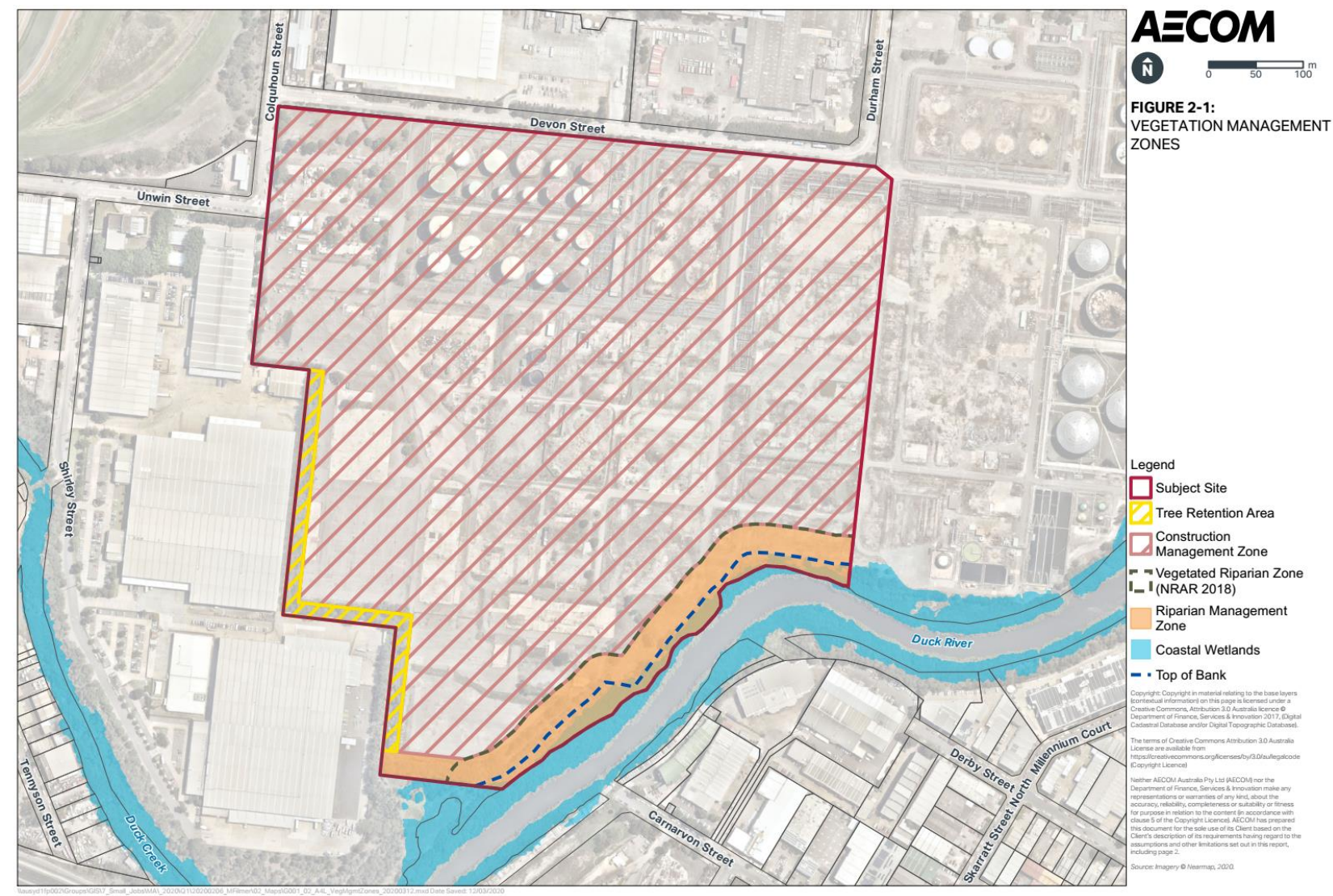


Figure 2-1 Vegetation management zones

2.2 Management measures

2.2.1 Riparian management zone

The SSD proposal would not require the clearing of native vegetation within the riparian management zone. Appropriate controls would be implemented to ensure that potential impacts to the riparian management zone are minimised during and after construction works.

During construction

Prior to construction works commencing sediment fences would be installed along the boundary of the Western Area including between the construction management zone and the riparian management zone. These fences provide a physical barrier between the construction site and 'No-Go Zones' within the conservation area.

Construction activities and the entry of construction personnel into the riparian management zone will be restricted during the construction period. The riparian management zone will be demarcated as a no-go zone and is to include appropriate signage. Access to this area (outside the existing native vegetation) during construction is to be limited to personnel and equipment required to install the stormwater outfalls and for revegetation works.

Sediment fences are to be installed and maintained in accordance with "Managing Urban Stormwater – Landcom (March 2004)", indicatively including an industry standard silt barrier (900 mm high minimum and 150 mm minimum buried depth), installed on the downslope side of all disturbed areas. The sediment fence would be installed without the requirement for the clearing of any threatened vegetation or protected marine vegetation.

Revegetation will be required in some location due to the existing poor condition of these area. All plants used for revegetation would be sourced from endemic seed stock, according to the species list for each plant community (refer to **Table 1**), or from suitable alternatives as agreed by an ecologist.

All plants would be supplied as forestry tubes, hiko tubes or viro cells for some species and ground covers. Exotic vegetation would be avoided.

To ensure 90% survival rate, revegetated areas would undergo regular maintenance of watering, weeding, replacement of dead or dying plants and adjustment of tree protection fencing where necessary. This will be undertaken for a minimum of two years following the completion of construction.

Table 1 Revegetation species list

Swamp Oak Floodplain Forest (PCT 910)	
Scientific name	Common name
Tree canopy species (>6 m)	
<i>Alphitonia excelsa</i>	Red Ash
<i>Casuarina glauca</i>	Swamp Oak
<i>Cupaniopsis anacardioides</i>	Tuckeroo
<i>Melaleuca ericifolia</i>	Swamp Paperbark
<i>Melaleuca styphelioides</i>	Prickly-leaved Tea Tree
Small trees / Shrubs (1.5 – 6 m)	
<i>Acmena smithii</i>	Lilly Pilly
<i>Callistemon salignus</i>	Sweet Willow Bottlebrush
<i>Glochidion ferdinandi</i>	Cheese Tree
<i>Homalanthus populifolius</i>	Bleeding Heart
<i>Myoporum acuminatum</i>	Boobialla

Swamp Oak Floodplain Forest (PCT 910)	
Scientific name	Common name
Herbs / ferns	
<i>Alternanthera denticulata</i>	Lesser Joyweed
<i>Blechnum indicum</i>	Swamp Water-fern
<i>Centella asiatica</i>	Indian Pennywort
<i>Hypolepis muelleri</i>	Harsh Ground Fern
<i>Lobelia anceps</i> (formerly <i>L. alata</i>)	Angled Lobelia
<i>Persicaria decipiens</i>	Slender Knotweed
<i>Persicaria strigosa</i>	Prickly Smartweed
<i>Selliera radicans</i>	Swamp Weed
<i>Viola banksii</i>	A Violet
Rushes / grasses	
<i>Baumea juncea</i>	Bare Twig Rush
<i>Carex appressa</i>	Tall Sedge
<i>Cynodon dactylon</i>	Sand Couch
<i>Crinum pedunculatum</i>	Swamp Lily
<i>Dianella caerulea</i>	Blue Flax Lily
<i>Entolasia marginata</i>	Bordered Panic
<i>Gahnia clarkei</i>	Tall Saw-sedge
<i>Imperata cylindrica</i> var. <i>major</i>	Blady Grass
<i>Isolepis inundata</i>	Swamp Club-sedge
<i>Juncus kraussii</i> subsp. <i>australiensis</i>	Sea Rush
<i>Juncus planifolius</i>	A Rush
<i>Juncus usitatus</i>	Common Rush
<i>Lomandra longifolia</i>	Ribbon Grass
<i>Oplismenus imbecillis</i>	Basket Grass
<i>Phragmites australis</i>	Common Reed
Vines	
<i>Parsonsia straminea</i>	Common Silkpod
<i>Stephania japonica</i> var. <i>discolor</i>	Snake Vine
<i>Flagellaria indica</i>	Whip Vine

If impacts to aquatic environments are observed within the vicinity of the work area (e.g. spill of any chemicals or substantial runoff of sediment having potential to impact upon the riparian management zone), works at that location would cease and the NSW Environment Protection Authority would be contacted for further advice. The extent of spill or sediment run-off would be managed and removed as soon as practicable when it is safe to do so.

In general, no vehicular access will be allowed within the riparian management zone unless associated with environmental management activities or construction of the relevant stormwater infrastructure discussed above. Should the construction contractor require access for any other

reason, including monitoring or installation of management measures, access would be kept to cleared areas as much as possible.

Although unlikely, if unexpected threatened flora or fauna species are discovered, all staff would stop works in the area immediately surrounding the find and contact DPIE Environment, Energy and Science group for advice.

During operation

Following completion of construction, the 30 m riparian management zone would be demarcated with the installation of a 1.8 metre high chainlink fence (or similar) to discourage public access. This fence would be designed to ensure small mammals are able to pass underneath. No barbed wire is to be used for this fence.

A qualified bush regeneration consultant would be engaged to inspect and manage the riparian management zone for two years following completion of construction. Indicatively, inspections would be undertaken annually, however this would be increased to every six months if invasive weed growth occurs rapidly (as determined by the bush regeneration consultant).

2.2.2 Construction management zone

During construction

Works within the construction management zone would consist of various earthworks and excavations to construct stormwater lines, services and drainage for the development as well as construction of the Downer Sustainable Road Resource Centre. These earthworks and construction works have the potential to result in the introduction of weeds through imported soil or from plant and machinery arriving on the site.

Management measures would be implemented to reduce the potential for the spread of introduced weeds into the construction management zone and the adjacent riparian management zone. In addition, the construction management zone would be subject to treatment aimed at suppressing weed growth and stabilising disturbed soils, preventing the establishment and spread of weeds. Measures to be implemented include:

- Control water flow to minimise erosion and the spread of weed species.
- Vehicle and contractor access kept to existing tracks as far as practicable.
- Close unnecessary tracks.
- Identify and treat weed species using best practice bush regeneration techniques.
- Monitor areas for future weed encroachment by regular (monthly) inspections and adapt work program to suit new threats.
- Hydroseed or tackify exposed soils and stockpiles if the areas will not be disturbed for more than two weeks.

Treatment of weeds should, as a first priority, be undertaken with best practice bush regeneration techniques aimed at minimal use of herbicides, encouragement of natural regrowth, the use of non-invasive grass species and the prevention of weed seeding or spread.

Annual and perennial weed species and grasses grow opportunistically in areas of disturbance and increased light, water and nutrients. They can be prolific seeders and can spread rapidly. Timing of annual and perennial weed species treatment is to be aimed at the prevention of seed development and dispersion. This will reduce the density and spread of weeds and therefore reduce the requirement for ongoing active treatment. Treatment will require a combination of the following:

- Hand removal, including underground reproductive structures as appropriate to the species
- De-seeding (if flowering and seeding has occurred)
- Large infestations may require herbicide application as recommended on the herbicide label (spraying an annual in flower will not prevent or kill seed)
- Soil and/or leaf litter translocation

- Creation of canopy and competition through native regeneration and revegetation.

Any reproductive propagules, flowers and seeds are to be disposed of in an appropriate manner that prevents them propagating and spreading within the site or elsewhere.

Hydroseeding or a tacifying emulsion would be used to stabilise stockpiles, help to suppress the growth of weeds and reduce erosion. In the medium and long term this will help to manage ongoing maintenance costs. Native grass seeds will be sourced from locally endemic seed stock where available.

Exotic species would be used only for temporary soil stabilisation and would consist of non-invasive and sterile species that can be readily managed. Hydroseed mix would consist of a combination of both native and non-native species to ensure rapid stabilisation of exposed soils and stockpiles.

Once applied, it will be necessary to perform establishment maintenance practices on the newly seeded areas until they are firmly stabilised. This will require an appropriate combination of watering, weed control, over seeding, erosion monitoring and mowing/slashing and/or whipper snipping.

During operation

The construction management zone would become the main body of the development once construction has finished. At this stage it is expected that individual development applications would be made by the relevant applicants for each of the subject lots. It is expected that any such application would be required to include detail on landscaping and vegetation management. This is expected to be sufficient to manage the ongoing biodiversity value of the Site and as such no further management actions are required as part of this VMP.

2.3 Responsibility and timing

Table 2 outlines the various tasks and responsibilities of this VMP.

Table 2 Program and responsibilities

Task	Timing	Responsibility
Riparian management zone – construction		
Appoint site manager and landscape contractor/bush regeneration team	Week 1	VE Property
Undertake management of bushland including removal of weeds and replanting (if required)	Ongoing	Construction contractor / bush regeneration consultant
Install sediment fence and erosion controls	Week 1	Construction contractor
Ongoing maintenance and monitoring	Ongoing	Construction contractor and bush regeneration consultant
Construction management zone – construction		
Install erosion and sediment controls and stormwater infrastructure	Week 1 – ongoing	Construction contractor
Target and remove flowering or spreading weeds	Ongoing	Construction contractor
Hydroseed/tacify exposed soils and stockpiles if left for > 2 weeks	As required	Construction contractor
Ongoing maintenance and monitoring	Ongoing	Construction contractor and bush regeneration consultant
Riparian management zone – operation		
Undertake monitoring of condition of riparian management zone and undertake weeding and replanting if required.	Annually for 2 years	Bush regeneration consultant
Annual reporting	Annually for 2 years	VE Property or subsequent landowner

Task	Timing	Responsibility
Construction management zone – operation		
Weed removal and landscaping of lots	Subject to future DA approval	Future proponents and landowners / tenants

To ensure that any maintenance works within the riparian management zone are guided by the principles outlined in this Plan and according to best practice bush regeneration techniques, monitoring and maintenance of the riparian management zone during both construction and operation would be undertaken and/or overseen by a person suitably qualified and experienced in bush regeneration.

3.0 Performance Criteria and Monitoring Requirements

Once the project commences, weed management and maintenance of existing vegetation becomes important. Maintenance would be provided at least annually for a minimum of two years following completion of the construction activities associated with the development or until such time as a minimum 80% survival rate of planted species and a maximum 5% weed cover for the riparian management zone is achieved. Monitoring and reporting requirements for construction and operation of the project are outlined in **Table 3**.

Table 3 Monitoring and reporting requirements

Action	Timing	Responsibility
Inspection of erosion and sediment controls to ensure their continued effectiveness	Construction - daily	Construction contractor
Inspection of the riparian management zone to investigate the presence of pests, disease, feral animals and weeds	Construction – monthly or after major storm events Operation – annually	Construction contractor (environmental representative) / bush regeneration personnel
Reporting including details regarding: • Revegetation and fencing works undertaken (areas, distance, quantities and locations) • Maintenance works undertaken (areas, techniques, herbicides used and locations) • Significant incidents in terms of weather events, pests, disease, feral animals • Analysis of plant growth rates and survival rates • Analysis of weed densities, varieties and distribution.	Annually	Construction contractor / bush regeneration personnel

3.1 Photo points

To assist in the future monitoring of the riparian management zone, three photo points have been identified. The purpose of these photo points is to compare the progression of management activities within the site throughout construction and operation. Locations of photo points are provided in **Figure 3-1** and baseline photos are plates 3-1 to 3-3.

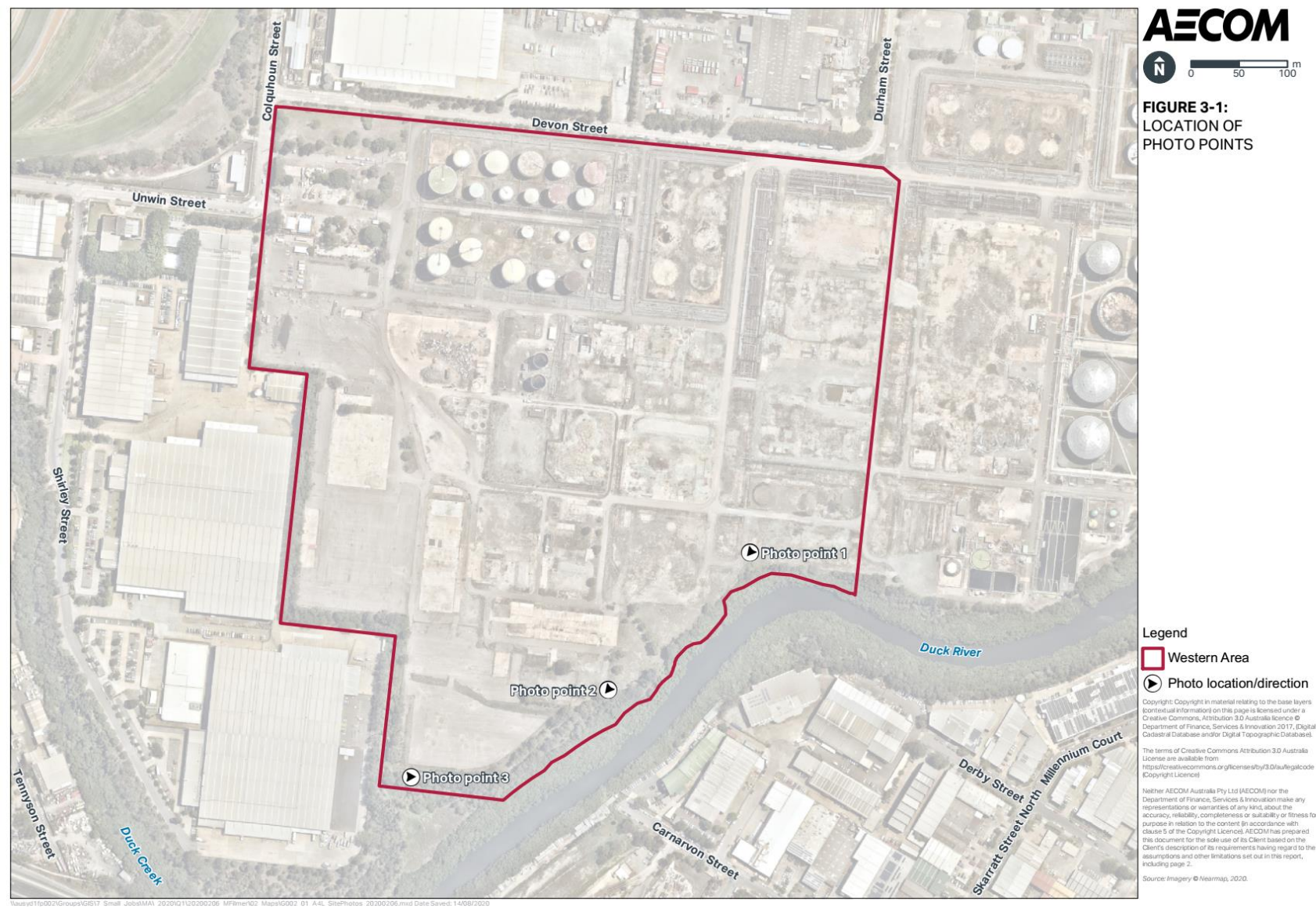


Figure 3-1 Locations of photo points



Plate 3-1 Photo point 1 - eastern end of the riparian management zone facing west



Plate 3-2 Photo point 2 - central part of the riparian management zone site facing west



Plate 3-3 Photo point 3 - western end of the riparian management zone facing east

4.0 Estimated Costs

Management costs for the construction phase would include the cost of the implementation of the various measures outlined in this VMP including sediment fences, hydroseeding, tube stock and ongoing vegetation management and monitoring.

Following completion of construction of the development, it is anticipated that effort and costs will generally remain constant over the proposed two year maintenance period. The maintenance works will be guided at all times by the principles outlined in this Plan and according to best practice bush regeneration techniques. For this reason, it is necessary that the works be undertaken and/or overseen by a person suitably qualified and experienced in bush regeneration. It is anticipated that the majority of the ongoing maintenance works would involve the management and control of weeds.

Estimated costs include the hiring of a bush regeneration personnel to undertake weeding for a period of one week per year over two years. VE Property commit to ensuring monitoring and reporting are provided for two years as outlined in this VMP to NSW Department of Planning, Industry and Environment. Should the property be transferred or sold within two years the obligation for the remaining implementation of this plan would be passed on to the new owner.

Estimated vegetation management costs for the project are provided in **Table 4** and are based on current industry rates in 2020-dollar terms. As part of the monitoring process and annual reporting, both the budget and the program will be assessed and modified as required.

Table 4 Estimated vegetation management costs (2020 dollars)

Component	Rate	Quantity per year	Construction	Year 1	Year 2	Total
Bush regeneration including weed management, disposal and maintenance of erosion and sediment controls	\$500 / hour	40	\$20,000	\$20,000	\$20,000	\$60,000
Annual monitoring and reporting	\$1,200	1	\$1,200	\$1,200	\$1,200	\$3,600
Supply and install exclusion and sediment fences	\$65 / metre	1050	\$30,000	-	-	\$30,000
Hydroseeding of stockpiles and exposed soil	\$0.1 / square metre	300,000	\$30,000	-	-	\$30,000
Ad hoc maintenance of controls and bush condition	\$100 / hour	20	\$2,000	\$2,000	\$2,000	\$6,000
Total			\$83,200	\$23,200	\$23,200	\$129,600

5.0 Plan review and modification procedures

The ongoing success of the riparian management zone dependent upon a number of unknown and dynamic natural processes taking place on the site. The principles of bush regeneration recognise these factors and work with these changes in mind. These natural processes include the following:

- Changing weather and soil conditions.
- Varying rates of plant growth.
- Uncertain seed banks.
- Changing sources and causes of weed outbreaks.
- Uncertain rates of natural regeneration.

Short and long-term changes in any of these factors will affect the management of the bush regeneration works. This plan is therefore adaptive and allows the scope of works to be adjusted and modified on a regular basis and as required. The annual reports will identify any opportunities or constraints as the management progresses, and regular reporting will then formulate the best work procedures to adopt and modify the plan to suit the site conditions.

6.0 Summary

This VMP aims to manage potential vegetation impacts of the proposed development of the Central Sydney Industrial Estate incorporating Downer Sustainable Road Resource Centre at Clyde, NSW. While works would include substantial activity within the central construction management zone, a riparian management zone would be maintained of at least 30 metres from the top of the bank of Duck River in which construction would be limited to fencing, construction of the maintenance access track and environmental management (e.g. water quality and stormwater infrastructure). This would provide protection for areas mapped as coastal wetlands under the *State Environmental Planning Policy (Coastal Management) 2018* as well as the threatened ecological communities listed under both NSW and Commonwealth legislation.

This VMP contains a suite of measures to assist the ongoing monitoring and treatment of weeds in the riparian management zone. This includes the implementation of best practice bush regeneration techniques to encourage native regeneration. The VMP also contains measures to be implemented in the construction management zone to ensure that construction activities do not result in the spread of weeds or other substantial impacts to the riparian management zone. These measures include erosion and sediment controls (including hydroseeding), as well as ongoing weed management.