Addendum - Ancillary Facility Assessment

Windsor Bridge Replacement Project

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Contents

Appendices

Glossary / Abbreviations

AFA	Ancillary Facility Assessment
CEMP	Construction Environmental Management Plan
CoA	Conditions of approval
DP&E	NSW Department of Planning and Environment
Ecologically sustainable development	Using, conserving and enhancing the community's resources so that the ecological processes on which life depends are maintained and the total quality of life now and in the future, can be increased (Council of Australian Governments, 1992).
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EMS	Environmental Management System
Environmental aspect	Defined by AS/NZS ISO 14001:2004 as an element of an organisation's activities, products or services that can interact with the environment.
Environmental impact	Defined by AS/NZS ISO 14001:2004 as any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects.
Environmental incident	An unexpected event that has, or has the potential to, cause harm to the environment and requires some action to minimise the impact or restore the environment.
Environmental objective	Defined by AS/NZS ISO 14001:2004 as an overall environmental goal, consistent with the environmental policy, that an organisation sets itself to achieve.
Environmental policy	Statement by an organisation of its intention and principles for environmental performance.
Environmental target	Defined by AS/NZS ISO 14001:2004 as a detailed performance requirement, applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.
Environmental Representative (ER)	A suitably qualified and experienced person independent of Project design and construction personnel employed for the duration of construction. The principal point of advice in relation to all questions and complaints concerning environmental performance.
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPA	Environment Protection Authority

EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
GMS	Georgiou Management System
Minister, the	Minister for Planning NSW
NOW	NSW Office of Water
OEH	NSW Office of Environment and Heritage
OOH	Out of Hours (works outside standard work hours)
SCMP	Strategic Conservation Management Plan
SPIR	Submissions Preferred Infrastructure Report
PoEO Act	*Protection of the Environment Operations Act 1997*
Project, the	The Windsor Bridge Replacement Project
Secretary	Secretary of the Department of Planning and Environment
SSI	State Significant Infrastructure

1 INTRODUCTION

1.1 Background

The Windsor Bridge Replacement Project team, comprised of NSW Roads and Maritime Services (Roads and Maritime) and Georgiou Group (Georgiou) , have partnered together to undertake construction of the new road bridge over the Hawkesbury River at Windsor (the Project), on behalf of the New South Wales (NSW) Government.

Roads and Maritime completed an environmental impact assessment of the Windsor Bridge Replacement Project (the Project EIS) in 2012, and submissions report (and preferred submission infrastructure report) in 2013. These assessments identified a range of environmental, social and planning issues associated with the construction and operation of the Windsor Bridge Replacement and proposed measures to mitigate and manage those potential impacts.

The Minister for Planning subsequently approved the Windsor Bridge Replacement Project under the former Part 5.1 (now Division 5.2) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) on 20 December 2013. The approval incorporated the Minister's Conditions of Approval (CoA).

In August 2018, the DP&E approved the Ancillary Facilities Assessment prepared for two ancillary areas one on the northern side of the Hawkesbury River adjacent to Wilberforce Road (Lot 21 DP1196661) and an additional stockpile area located at 33 Wilberforce Road, Windsor on Lot 10 DP1182305.

Georgiou proposes to establish an additional ancillary area at 43 Wilberforce Road adjacent to the main site compound (Lot 11 DP1182305) to be primarily used for parking and laydown of materials.

1.2 Need

Due to the project design and required programming of construction activities a portion of the main site compound will be excavated to develop an operational water quality basin. Activities to develop the basin will commence in early to mid-2019 so that drainage and water quality management can be provided during construction of approach roads and roundabout to the new bridge as well as during operation of the new bridge. As such, additional space for materials storage and parking will be necessary once these works commence.

Additionally, the main site compound is constrained in size and this presents issues including traffic congestion and safety concerns regarding people and plant interactions.

1.3 Context

This Ancillary Facility Assessment (AFA) has been prepared as an addendum to the approved Ancillary Facilities Assessment to satisfy the CoA and to seek approval from the Secretary of the Department of Planning and Environment (DP&E) under CoA C9. This approval is required prior to the establishment of the additional ancillary area.

2 PURPOSE AND OBJECTIVES

2.1 Purpose

Georgiou proposes to establish an additional ancillary area at 43 Wilberforce Road (Lot 11 DP1182305) for car parking, laydown area and minor stockpiling of materials. These facilities are required as part of the construction activities for the works to be delivered by Georgiou.

The purpose of this Addendum AFA is to describe the additional proposed ancillary area and assess the environmental impacts relative to the original approved AFA.

A desktop review of the proposed site location against the CoA C8 shows that the proposed ancillary area does not meet all criteria listed under CoA C8 as shown in Table 3-1.

Under CoA C9, ancillary facilities that do not meet the criteria listed under CoA C8 require approval from the Secretary. Therefore, this AFA seeks to gain such approval by assessing the proposed ancillary facility against the C8 criteria and subsequently demonstrating how potential environmental impacts will be mitigated and managed to acceptable standards.

2.2 Objectives and Targets

The key objective of the AFA is to ensure that the potential impacts to the environment are minimised and within the scope permitted in the conditions and approvals of the Project. The measures taken to ensure these objectives are met are consistent with those provided in Section 2.2 of the approved AFA.

The targets established in Section 2.2 of the approved AFA for the management of impacts resulting from operation of the ancillary facility sites during the Project are relevant for this Addendum.

3 ENVIRONMENTAL REQUIREMENTS

3.1 Relevant legislation and guidelines

The legislation and guidelines, specifications and policy documents relevant to the management of the proposed additional ancillary area are listed in Section 3.1 of the approved AFA.

All management and mitigation measures proposed in this addendum AFA will be to relevant standards, the Project EIS, the SPIR report, the CoA and all applicable legislation.

3.1.1 Minister's Conditions of Approval

The CoA relevant to this assessment are listed in Table 3-1. A cross reference is also included to indicate where the condition is addressed in this assessment or other Project management documents.

Table 3-1 Conditions of Approval relevant to the AFA

CoA No.	Condition Requirements	Compliance / Reference within this document
CoA C8	*Unless otherwise approved by the Director-General, the location of Ancillary Facilities shall:* *(a) be located more than 50 metres from a waterway;*	**No**. The ancillary facility will be within 50m of the Hawkesbury River.
	(b) be located within or adjacent to land where the SSI is being carried out;	Yes. Land is located adjacent to the Project study area as depicted in the Figure 4-1.
	(c) have ready access to the road network or direct access to the construction corridor;	Yes. Direct access to Wilberforce Road. Good line of sight down Wilberforce Road for safe access and egress (refer Figure 4-1 and Figure 4-2).
	(d) be located to minimise the need for heavy vehicles to travel through residential areas	Yes. Minimal residential receivers on the northern side of the Hawkesbury River (refer Figure 4-1).
	(e) be sited on relatively level land	Yes. The site where facility is proposed to be located is on relatively level land with less than 1% fall towards the Hawkesbury River.
	(f) be separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant);	**No**. The closest residential receiver is at the junction of Bridge Street and Wilberforce Rd (27 Wilberforce Road) which is approximately 170m away from the fence line of the proposed facility boundary (refer Figure 4-1).
	(g) not require vegetation clearing beyond that already required by the SSI	Yes. No vegetation clearing required as part of the facility setup.
	(h) not be located within the Thompson Square Conservation Area;	Yes. The facility is not located in the Thompson Square Conservation Area
	(i) not impact on Heritage items (including	Yes. There will be no additional impacts

CoA No.	Condition Requirements	Compliance / Reference within this document
	identified Aboriginal cultural value and archaeological sensitivity) beyond those already impacted by the SSI and not have any additional impacts to those heritage items impacted by the proposal	on heritage items from the construction or operation of the facility. Excavation will be limited to depths of <30cm below surface at the ancillary facility An additional AHIMS extensive search was conducted on 29/01/2019 to confirm that no new sites have been identified.
	(j) not unreasonably affect the land use of adjacent properties	Yes. There will be no unreasonable effects on adjacent landholders.
	(k) be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented	**No**. The facility is located within the 20 ARI Flood level zone. A Flood Warning and Evacuation Plan (FWEP) has been prepared which outlines design considerations for the establishment of the facility and mitigation measures in the event of a flood. Refer to the approved Flood Warning and Evacuation Plan (Appendix E of the approved AFA). The FWEP has been updated to include the additional ancillary area.
	(l) provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours. The location of the ancillary facilities shall be identified in the Construction Environment Management Plan	Yes. The facility provides additional area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.
	The location of the ancillary facilities shall be identified in the Construction Environment Management Plan.	The approved Construction Environment Management Plan will be updated to identify the location of the ancillary facility.
CoA C9	*Ancillary sites that do not meet the criteria set out in this consent shall be approved by the Director-General prior to establishment. In obtaining this approval, the Applicant shall assess the ancillary facility against the criteria set out in this consent to demonstrate how the potential environmental impacts can be mitigated and managed to acceptable standards. Such assessment(s) can be submitted separately or as part of the Construction Environmental Management Plan required under this consent. The assessment shall include, but not necessarily be limited to:*	This AFA
	(a) a description of the Ancillary Facility, its components and the surrounding environment;	Sections 4.1 and 5
	(b) details on the activities to be carried out at the facility, including the hours of use and the	Sections 4.2, 4.3 and 4.4

CoA No.	Condition Requirements	Compliance / Reference within this document
	storage of dangerous and hazardous goods;	There will be no storage of dangerous and hazardous goods at the additional ancillary area. There will be no storage of asbestos on the additional ancillary area.
	(c) an assessment of the environmental impacts on the site and the surrounding environment, including, but not limited to noise, vibration, air quality, traffic access, flora and fauna, heritage and light spill;	Section 5
	(d) details on the mitigation, monitoring and management procedures specific to the Ancillary Facility that would be implemented to minimise the environmental impacts or, where this is not possible, feasible and reasonable measures to offset these impacts and an assessment of the adequacy of the mitigation or offsetting measures. This shall include consideration of restrictions on the hours of use or exclusion of certain activities;	Sections 6 and 7
	(e) details on the timing for the completion of activities at the ancillary facility and how the site will be decommissioned (including any necessary rehabilitation); and	Section 4.5
	(f) demonstrated overall consistency with the approved project. *The Applicant shall demonstrate to the satisfaction of the Director-General that there will be no additional significant adverse impact from that Ancillary Facility's construction or operation.*	Appendix I of the approved AFA has been reviewed with consideration of the construction and operation of the proposed additional ancillary area. The proposed area is consistent with approved project.
CoA C10	*The Director-General's approval is not required for minor Ancillary Facilities (e.g. lunch sheds, office sheds, and portable toilet facilities, etc.) that do not comply with the criteria set out in condition C8 of this consent and which:* *(a) are located within an active construction zone within the approved project footprint; and* *(b) have been assessed by the Environmental Representative to have:* *(i) no additional adverse impact on the Thompson Square Conservation Area;* *(ii) minimal amenity impacts to surrounding residences, with consideration to matters such as noise and vibration impacts, traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts, and* *(iii) minimal environmental impact in respect to waste management, and no impacts on*	N/A The ancillary facility does not meet the conditions of a minor ancillary facility, as such this condition is not applicable.

CoA No.	Condition Requirements	Compliance / Reference within this document
	flora and fauna, soil and water, and heritage beyond those approved for the project; and *(c) have environmental and amenity impacts that can be managed through the implementation of environmental measures detailed in a CEMP for the project.*	
CoA C11	*All Ancillary Facilities shall be rehabilitated to at least their pre-construction condition, unless otherwise agreed by the Director-General.*	Section 4.5

4 ANCILLARY FACILITY DETAIL

4.1 Description

The proposed location of the additional ancillary facility is located at 43 Wilberforce Road, Windsor in Lot 11 DP1182305, adjacent to the Project site (as per Table 3-1: CoA C8b). The proposed ancillary area was not covered by the EIS and is outside of the approved boundary. However establishment and operation of the area as a carpark and laydown area is considered consistent with the existing Project approval.

The proposed area located at 43 Wilberforce Road is central to the works and is positioned on relatively flat land. The closest waterway is the Hawkesbury River, located approximately 30m from the facility's southern boundary. The nearest residential property is approximately 170m away from the boundary of the proposed ancillary area.

The existing environment of the proposed ancillary facility is agricultural land, specifically a commercial turf farm. The commercial turf farm extends north from the ancillary area across Wilberforce Road. To the east and the west are isolated residential properties, 63 Wilberforce Road and 27 Wilberforce Road at 200m and 170m from the proposed area respectively. Additionally, there is one commercial property within the vicinity of the additional ancillary area, located 115m to the west of boundary. Beyond these properties are more commercial turf farms. Directly to the south of the proposed compound site is the riparian vegetation along the banks of the Hawkesbury River.

The additional proposed area will support the construction activities and will include:

- Car parking of construction vehicles
- Temporary storage and stockpiling of materials including raw materials (aggregate, rock and soil) and demolition wastes
- Laydown area for construction plant, equipment and pre-fabricated structural elements.

No hazardous or dangerous goods will be stored at the additional ancillary area.

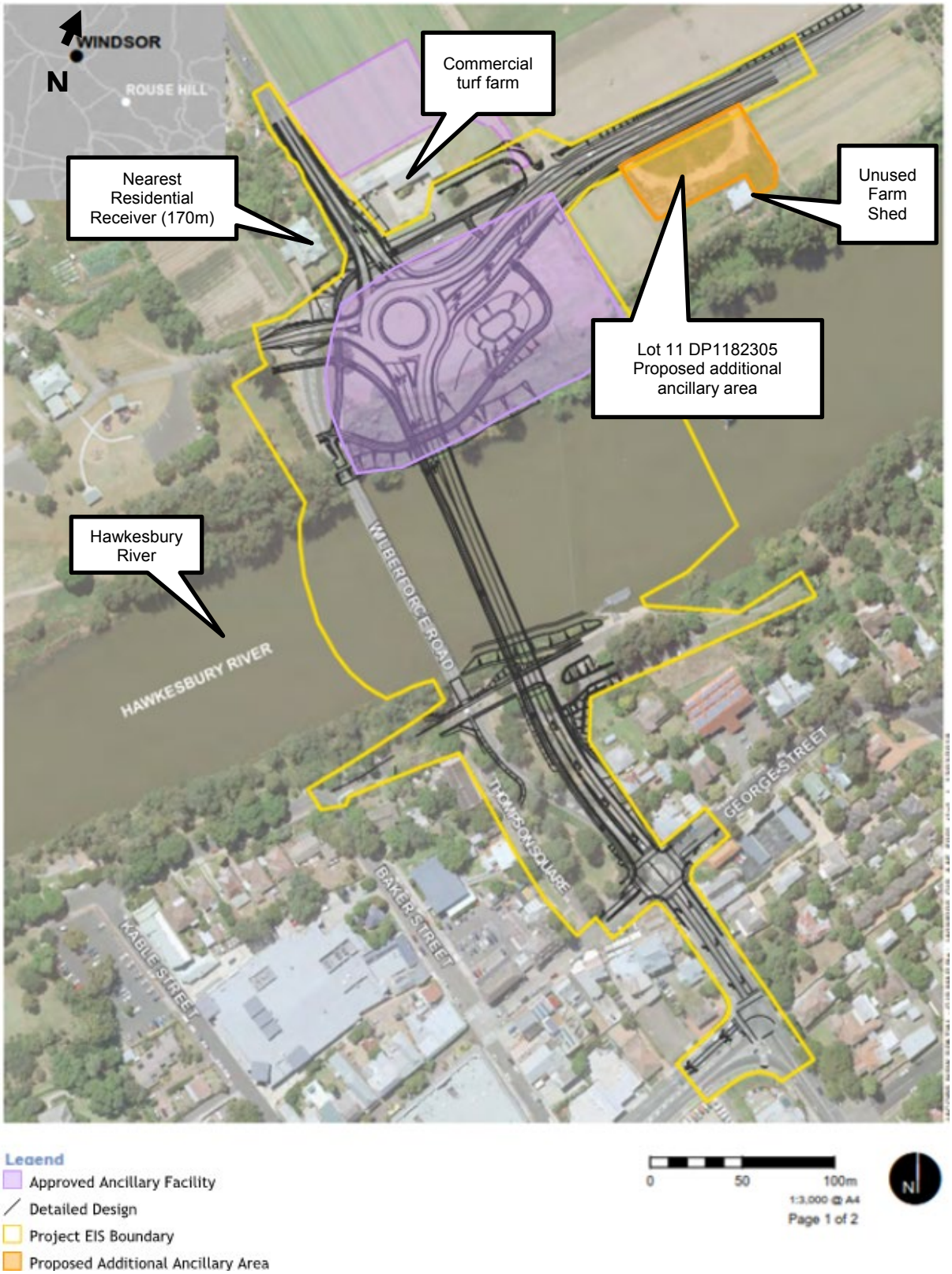


Figure 4-1. Proposed location of main ancillary facility adjacent to Wilberforce Road

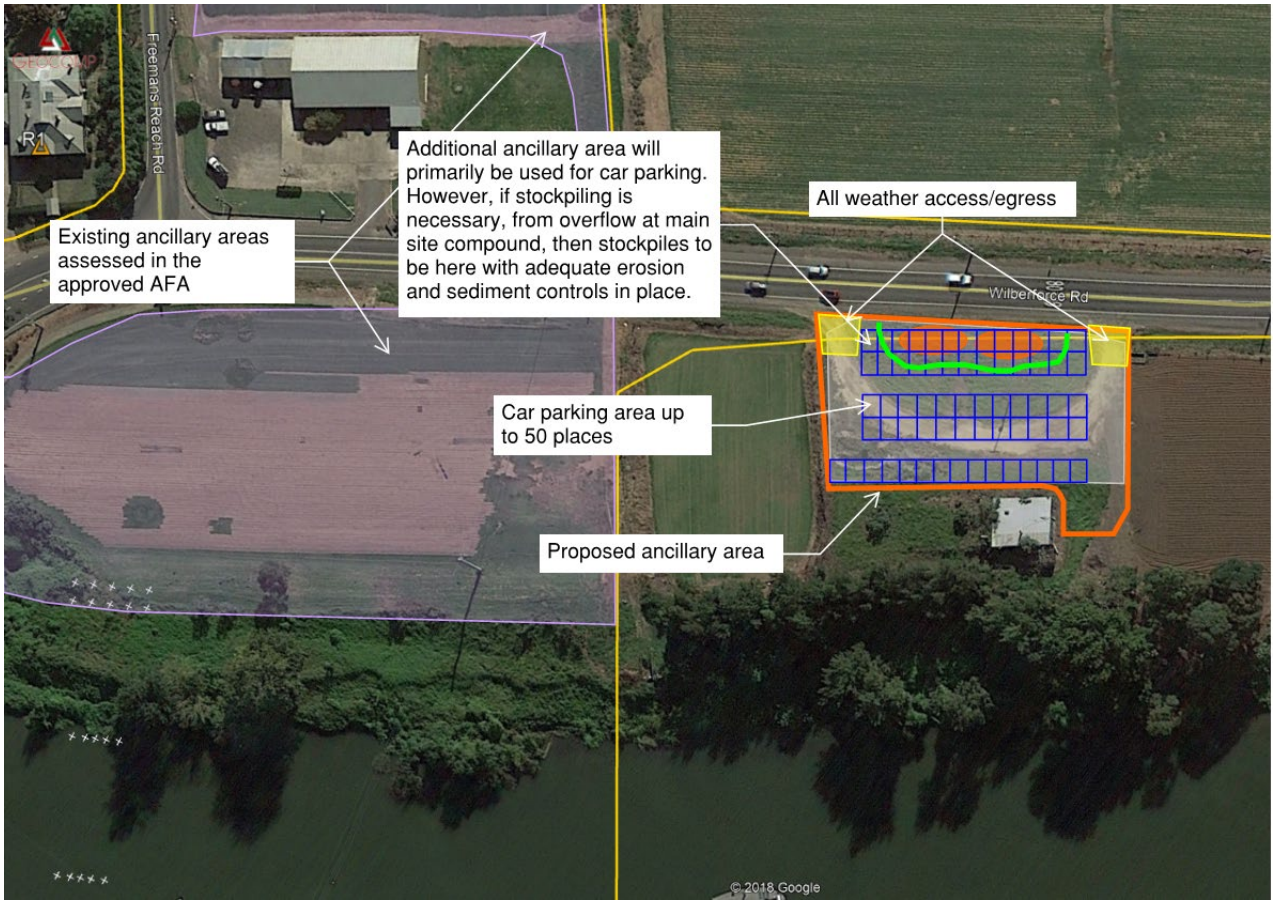


Figure 4-2. Proposed layout for Ancillary Area

4.2 Activities

Activities to be carried out at the proposed additional area will generally include:

- Laydown area for traffic and pedestrian control materials
- Laydown area for construction plant, equipment and pre-fabricated structural elements
- Parking of heavy and light vehicles (50 car spaces)
- Stockpiling of raw materials (aggregate, rock and soil) and demolition wastes.

4.3 Plant and Equipment

Light vehicles will use the site on a daily basis. Heavy vehicles will deliver construction materials to the site and will sometimes be parked at the site. Small power tools will be used. Indicative plant, equipment and material to be stored at the ancillary site are listed below;

Plant;

- Backhoe
- Front end loader
- Semi-trucks
- Heavy Vehicles
- Light vehicles
- 30 tonne excavators
- 35 tonne excavators
- 100T crane.

Equipment;

- Various Poly pipe lengths and sizes for culverts
- Generators
- Hand tools; plate compactors, drills, shovels, etc.

Materials;

- Geofabric Rolls
- Bedding sand
- Aggregates.

Stockpiling of materials;

- Raw materials procured for construction like aggregate, rock and soil will also be temporarily stored at the stockpile area.

4.4 Timing and Duration

The proposed additional ancillary area will be established and commence operation once approval is granted by the DP&E. This ancillary facility will operate during the approved construction as per Section 4.4 of the approved AFA. These construction hours are consistent with CoA C13, CoA C14 and CoA C15.

4.5 Decommissioning and rehabilitation

Decommissioning and rehabilitation of the proposed ancillary facility area (43 Wilberforce Road) will be undertaken in accordance with the approved AFA, towards the end of the construction program in 2020 and will include the following activities:

- Removal of all fencing, signage and temporary structures
- Site clean-up and disposal of all surplus materials
- Stabilisation and re-vegetation of the sites as per Urban Design and Landscape Plan.
- Reinstatement of the stockpile to the pre-existing condition unless otherwise agreed by the land holder

In accordance with CoA C11, all ancillary facilities and access points will be rehabilitated to at least their pre-construction condition or better, unless otherwise agreed by the Secretary.

5 ENVIRONMENTAL ASSESSMENT AND MITIGATION MEASURES

All aspects of the environment potentially impacted upon by the establishment and operation of the additional ancillary area, and the mitigation measures implemented to manage these impacts, are considered in Table 5-1.

The potential impacts and proposed mitigation measures are considered largely consistent with the approved AFA.

Table 5-1 Environmental aspects, impact and mitigation measures associated with the proposed additional ancillary area

Aspect	Description	Reference in Approved AFA
Flora and Fauna	The proposed area has previously been used for turf farming activities. The potential impacts to flora and fauna from the establishment and use of the additional ancillary facility is not anticipated to result in any direct impacts to native flora or fauna and given the low habitat potential of the surrounding area it is unlikely that noise, vibration or light associated with the operation of the ancillary facility will have an adverse impact on the surrounding flora and fauna. The safeguards and mitigation measures detailed in Section 6 of the approved AFA will appropriately manage risks to flora and fauna associated with the additional ancillary area.	Section 5.1 Section 6
Soil and Water	Activities undertaken to establish and operate the additional ancillary area will include clearing of grass and stockpiling of soils/materials. The potential impacts of these activities may include; • Exposure of soils during earthworks, creating the potential for offsite transport of eroded sediments and pollutants • Increased turbidity of waterway due to exposure, erosion, runoff and dust propagation • Contamination from site compounds, chemical storage areas and ablution facilities • Fuel, chemicals, oils, grease and petroleum hydrocarbon spills from construction machinery polluting the river and soils. • Disturbance of unidentified contaminated land and subsequent generation of contaminated runoff. • Alteration of surface and subsurface flows that could cause disturbances to hydrology. Relevant documents including the Project Erosion and Sediment Control Plans (PESCP's) will be updated to include the new area as shown in Appendix A. The safeguards and mitigation measures detailed in Section 6 of the approved AFA will appropriately manage risks to soil and water associated with the additional ancillary area.	Section 5.2 Section 6

Flooding	Similar to the ancillary areas described in the approved AFA, the proposed ancillary area is also within the 1 in 20 ARI flood region (see Figure 5-11 of the approved AFA). The approved Flood Warning and Evacuation Management Plan covers the activities proposed to be carried out in the additional ancillary area and describes contingency measures for flood events to minimise the risk of damage from flooding.	Section 5.3
Heritage	The additional ancillary area was not covered by the detailed salvage strategy, however based on these investigations Aboriginal Cultural material was primarily recovered between depths of 1.2 to 2.4 metres below ground surface. The additional ancillary area is located on a highly disturbed agricultural parcel of land and given the constructions activities to be limited to car-parking, stockpiling of materials and laydown, it is considered unlikely (with site excavations to depths of <0.30m below ground surface) it would result in any direct impacts to any cultural deposits. Additionally, an Aboriginal Heritage Information Management System (AHIMS) Extensive Search undertaken on 29/1/2018 indicated no known Aboriginal archaeological sites within 50 metres of the proposed temporary ancillary facility. Based on the above assessment direct impacts to Aboriginal heritage are considered low. In regards to non-Aboriginal heritage the closest item of significance is at 27 Wilberforce Road. As outlined in the approved AFA no direct impacts to this item are considered likely, however pre and post construction condition assessments have/will be undertaken. Measures to mitigate potential impacts to heritage detailed in Section 6 of the AFA, including the unexpected finds procedure, will be implemented in the establishment and operation of the proposed area.	Section 5.4 Section 6
Noise and Vibration	The nearest sensitive receivers to the proposed ancillary area are the commercial and residential property to the west at 33 Wilberforce Road (115m) and 27 Wilberforce Road (170m) respectively. And one residential receiver to the east at 63 Wilberforce Road (200m). The expected noise and vibration impacts at the nearest receivers will be similar to those described in the approved AFA as the activities to be undertaken on the ancillary area do not differ from those previously assessed. Based on the assessment in the approved AFA: • Expected noise levels at 33 and 63 Wilberforce Road are anticipated to be below the relevant Noise Management Levels. • Structural damage from vibration is unlikely at both receivers, as the safe working distances will not be exceeded.	Section 5.5 Section 5.6 Section 6

	Mitigation measures outlined in Section 6 of the AFA will be implemented to manage any potential noise and vibration impacts.	
Traffic and access	The proposed ancillary area has ready access to Wilberforce Road to allow for safe entrance and exit and is expected to have minimal impacts to the existing traffic flows. The existing road that would be impacted is Wilberforce Road as both access and egress to the additional area is to this road. It is anticipated that most construction-related heavy traffic would travel to and from the project area predominantly from the south, although materials destined for the work areas on the northern side of the river would ideally be delivered from areas to the north. As the additional ancillary area is in close proximity to the main site compound pedestrians will be able to safely access the compound by foot on a delineated section of the roadside verge and there is no need to cross Wilberforce Road. The approved Traffic Management Plan will be updated following approval of this AFA to include any changes relevant to the inclusion of the proposed ancillary area.	Section 5.7
Visual	The proposed ancillary area is turf farmland and would result in an increase in the visual extent of the construction site for receivers at 63 and 27 Wilberforce Road. However the visual and light spill impacts associated with the additional ancillary facility would be temporary in nature, low lying and would not contain tall structures or have any permanent lighting installed. As such the impacts to these receivers are considered minimal. Mitigation measures outlined in Section 6 of the AFA will be implemented to manage any potential visual impacts.	Section 5.8
Air Quality	Establishment of the additional ancillary area will result in disturbance to <0.3ha of ground surface. Primary sources of dust emissions associated with the establishment and operation of the ancillary facility identified in the Project EIS are; • Clearing of grasses and topsoil removal • Movement of soil and fill • Wind erosion from unsealed surfaces and stockpiles • Vehicles travelling over unsealed areas. Construction activities are similar to that of the existing ancillary areas and similar impacts are expected. The measures implemented to manage the impacts are considered consistent with the approved AFA.	Section 5.9 Section 6
Community Consultation	Georgiou has consulted with the landowner of the proposed additional ancillary area, 43 Wilberforce Road, and a lease agreement has been established and will be implemented upon approval of this Addendum. Consultation with the nearest residential receivers 27 and 63	Section 5.10

	Wilberforce Road has occurred with the residents having no objections to the proposed additional ancillary area. Broader community consultation strategies and management measures will not differ from those outlined in the approved AFA.	

6 ENVIRONMENTAL MITIGATION MEASURES

This section details the environmental mitigation measures specific to the Ancillary Facility in accordance with CoA C9(d) that will be implemented to minimise the environmental impacts associated with the establishment and operation of the ancillary facility.

A range of environmental mitigation measures are identified in the various assessment and approval documents for the project, including the EIS, the Submissions Report, Conditions of Approval and Roads and Maritime standard documents. Site specific mitigation measures have been adapted from these documents as relevant to the establishment; operation, decommissioning and rehabilitation of the ancillary facility, as outlined in Table 6-1.

Table 6-1 Environmental Mitigation Measures

ID	Measure/Requirement	When to Implement	Responsibility	Reference
General				
GEN1	Prior to establishing the ancillary facility a pre-construction land condition assessment will be undertaken by an independent environmental consultant. This will assess the land for any pre-existing contamination or waste issues prior to taking possession.	Prior to possession of site	ESR, Independent Consultant	G36, Cl4.15.2
GEN2	A flood response management plan has been developed (Appendix E) to ensure adequate warning of floods is obtained and that appropriate emergency response procedures are implemented in a timely manner.	Pre - construction Construction	Project Manager Superintendent ESR	CoA C8(k) G1
GEN3	When the areas of land used for the site facilities are no longer required, and after restoration of the areas to pre-existing condition or better, a post-construction land condition assessment by an independent environmental consultant is required.	Post - construction	ESR Independent Consultant	G36, Cl4.15.2
Flora and Fauna				
FF1	Clear boundaries will be applied for construction and exclusion zones for equipment, machinery and traffic to prevent unnecessary damage to native vegetation and fauna habitats.	Pre - construction	Project Manager Superintendent ESR	CoA D4(d) CoA D5(b)(i) G36 Sections 3.1 and 4.8
FF2	Clearing limits will be accurately and clearly marked. Existing trees within construction area and compounds that do not need to be removed will be identified, protected and maintained throughout the construction period.	Pre - construction	Project Manager Superintendent ESR	CoA D5(b)(i) CoA D5(b)(ii) G36 Section 4.8
FF3	Once clearing limits have been surveyed and marked, a suitably qualified and experienced fauna ecologist will undertake a pre-clearing survey to identify any concerns to specific species.	Pre - construction	Ecologist ESR	CoA D5(b)(i) G36 Section 4.8
FF4	Clearing boundary demarcation and tree protection zones will be inspected during the weekly environmental inspection and recorded in the Georgiou One App Environmental inspection template. Inspection findings will be reported in the environmental monthly report.	Construction	ESR	CoA C9(d)
Soil and water				
SW1	Training will be provided to all project personnel, including relevant subcontractors on sound erosion and sediment control practices and the requirements from this plan through inductions, toolboxes and targeted training.	Pre-construction Construction	Superintendent ESR	G38/G36, Good practice
SW2	An erosion and sediment control plan (Appendix B) will be developed during detailed design in accordance with Managing Urban Stormwater –	Pre-construction	Superintendent ESR	ESCPs

ID	Measure/Requirement	When to Implement	Responsibility	Reference
	Soils and Construction Volume 1 (Landcom, 2004) and Volume 2D (DECC, 2008). This plan will incorporate erosion control measure to limit the movement of soil from disturbed areas, and sediment control measures to remove any sediment from runoff prior to discharge into the river.	Construction		(Appendix B) CoA C23
SW3	All soils to be transported offsite, will be identified and classified in accordance with the *Protection of the Environment Operations Act 1997* (POEO Act) and Waste Classification Guidelines	Construction	Superintendent ESR	G36 Clause 4.11 CoA C40
SW4	The approved Unexpected Discovery of Contaminated Land Procedure (Appendix B – Contaminated Land Management Plan) will be implemented if potentially contaminated land, spoil or fill is encountered. Works in the vicinity will be stopped or modified and will not recommence until the material has been analysed and management measures implemented.	Construction	Superintendent ESR	G36 Clause 4.2.3
SW5	A spill management procedure (Appendix B12 – CEMP) will be developed and personnel will be inducted on its procedures in the event of a spill. All fuels and chemicals will be stored and used in accordance with the appropriate guidelines and standards	Construction	Superintendent ESR	Appendix C
SW6	All erosion and sediment controls will be inspected weekly and post rainfall events >10mm. Required maintenance and improvements will be recorded in the Georgiou One App Environmental inspection template. Inspection findings will be reported in the environmental monthly report.	Construction	ESR	CoA C9(d)
Stockpile Management				
SP1	Stockpiling of material will not occur within 5m of vegetation protection areas and tree protection zones. Delineation will be in accordance with AS 4970.	Pre-construction Construction	Project Manager ESR	G38 Clause 3.2 CoA D4 (e)
SP2	Stockpiles will be located at least 5m from concentrated water flows and 50m from the top of bank of any watercourse or drainage line	Pre-construction Construction	Project Manager ESR	G38 Clause 3.2 CoA D4 (e)
SP3	Stockpile heights will be no greater than 2m unless otherwise approved by Roads and Maritime, with slopes no steeper than 2:1.	Pre-construction Construction	Project Manager ESR	G38 Clause 3.2 CoA D4 (e)
SP4	Cover, or otherwise protect from erosion, stockpiles that will be in place for more than 4 weeks as well as any stockpiles that are susceptible to wind or water erosion, within 10 days of forming each stockpile in accordance with the blue book.	Pre-construction Construction	Project Manager ESR	G38 Clause 3.2 CoA D4 (e)

ID	Measure/Requirement	When to Implement	Responsibility	Reference
SP5	Weed mitigation measures including early establishment of a sterile cover crop on topsoil stockpiles will be implemented to prevent and minimise the growth of weeds.	Construction	Project Manager ESR	G38 Clause 3.2 CoA D4 (e)
SP6	Stockpiles will be located on relatively flat land <2% grade, to minimise erosion	Pre-construction Construction	Project Manager ESR	G38 Clause 3.2
SP7	Controls will be placed around stockpiles and immediately downslope of excavated areas to minimise siltation and sedimentation.	Pre-construction Construction	Superintendent	G38 Clause 3.2
SP8	The ESCP (Appendix A) must detail the measures that will be implemented to protect stockpiles from erosion by wind and water erosion.	Pre-construction Construction	ESR	G38 Clause 3.2
SP9	The stockpile area will be included in the weekly and post rainfall environmental inspections and recorded in the Georgiou One App Environmental inspection template. Inspection findings will be reported in the environmental monthly report.	Construction	ESR	CoA C9(d)
Material Storage and Management				
CH1	Inspect all plant and equipment daily for leakages of fuel, oil or hydraulic fluid. Repair any defective or deteriorated equipment that may result in leaks or leaks before using plant or equipment. Maintain records of plant inspections	Construction	Operators	G36 Cl 4.3
CH2	Keep adequate quantities of suitable material to counteract spillage readily available. Clean up all chemical spills immediately.	Construction	Superintendent\Foreman	G36 Clause 4.3 CoA C12
CH3	Emergency spill kits for the management of wet and dry chemical spills must be available at all compound areas	Construction	Superintendent\Foreman	G36 Cl 4.3 CoA C12
CH4	Where a plant servicing wash-down area is needed to wash down plant prior to maintenance using degreasers, the wash-down will be constructed with an impermeable base and a dirty water sump.	Construction	ESR, Superintendent Foreman	G36 Cl 4.11 CoA C38
CH5	Waste oil, oily rags, oil filters and oily waters will be disposed of by an appropriately licensed contractor to a waste facility where the materials are lawfully accepted.	Construction	ESR, Superintendent Foreman	G36 Cl 4.11 CoA C38

ID	Measure/Requirement	When to Implement	Responsibility	Reference
CH6	Do not drive or park any plant and vehicles, including employees' motor vehicles, on unpaved areas outside the Site without the approval of the Principal.	Construction	Superintendent Foreman	G36 Cl 4.8
CH7	Provide security for your buildings, materials, construction plant and machinery. Take all necessary precautions to make the area safe to the public	Construction	ESR Superintendent Foreman	Best practice
CH8	Ensure that adequate rubbish receptacles are provided. Service these receptacles regularly and to the satisfaction of the Principal to ensure that the construction area remains tidy.	Construction	ESR Superintendent Foreman	Best practice
CH9	Waste management measures will be based upon the philosophy of reduce, reuse, recycle and appropriate disposal.	Construction	Superintendent ESR	G36 Clause 4.11 CoA C38
Heritage				
HER1	Prior to commencing work all construction personnel will undergo a heritage induction which would contain information on heritage values and items in the area and on environmental management measures to minimise potential heritage impacts. This induction will identify procedures for unexpected heritage finds.	Pre - construction	ESR	CoA C4(a) G36 Section 5
HER2	The Roads and Maritime's unexpected finds protocol will be implemented for the works in relation to unexpected heritage finds and in the event of uncovering possible human skeletal remains (Appendix F) This includes cessation of works in the vicinity, assessment of the significance of the item(s) and determination of appropriate mitigation measures including when works can re-commence by a suitably qualified and experienced archaeologist in consultation with the Department, OEH and registered Aboriginal stakeholders and assessment of the consistency of any new non-Aboriginal and Aboriginal heritage impacts against the approved impacts of the project, and notification to the Department, and the OEH for Aboriginal heritage (in accordance with section 89A of the National Parks and Wildlife Act 1974) and the OEH for non-Aboriginal heritage (in accordance with Section 146 of the NSW *Heritage Act 1977*);	Construction	Project Manager Superintendent ESR	RMS Standard Management Procedure - Unexpected Heritage Items (Appendix F)

ID	Measure/Requirement	When to Implement	Responsibility	Reference
HER3	All Heritage buildings within 50m of the construction footprint including the residential building at 27 Wilberforce Road will have pre and post dilapidation surveys to ensure any damage during the construction period is identified.	Pre/post construction	Project Engineer Building surveying consultant	CoA D1 G36 Section 4.7
HER4	Only surface activities will be undertaken at the additional ancillary facility unless approval is obtained from the project Heritage Manager.	Construction	Project Manager ESR Heritage Manager	G36
Noise and Vibration				
NV1	Implement all reasonable and feasible mitigation measures to ensure the works comply with the relevant Noise Management Levels. This shall include; • Works will be undertaken in accordance within the standard working hours until the CEMP has been approved by the DPE which includes the Out of Hours Works application (refer Appendix G) and in compliance with the Project CoAs. • All construction plant and equipment used on the site will be: - Fitted with properly maintained noise suppression devices in accordance with the manufacturer's specifications. - Maintained in an efficient condition. - Operated in a proper and efficient manner • All noise and vibration complaints will be managed in accordance with the Community Communications Strategy. • Loading and unloading should be carried out away from sensitive receivers, as far as practicable. • Avoiding noisy plant from working simultaneously in close proximity adjacent to sensitive receivers will result in reduced noise emissions and exposure. • Equipment which is used intermittently is to be shut down when not in use. • Where possible, equipment with directional noise emissions should be • Oriented away from sensitive receivers. • Reversing of equipment should be minimised so as to prevent nuisance caused by reversing alarms.	Pre-construction Construction	Superintendent ESR	G36, Cl4.16 CoA C13, C14,C15,C16, C17,C18

ID	Measure/Requirement	When to Implement	Responsibility	Reference
	• Where possible, schedule a respite period of one hour for every three hours of continuous construction activity, or scheduling high noise generating works to the less sensitive times of 9:00 am to 12:00 pm or 2:00 pm to 5:00 pm. • Ensure plant is regularly maintained and replace equipment which becomes noisy • Arrange the worksite to minimize the use of movement alarms on vehicles and mobile plant.			
NV2	Pre and post construction dilapidation surveys will be undertaken at 27 and 33 Wilberforce Road to identify any impacts associated with the establishment and operation of the ancillary facility.	Pre-Construction Operation	Project Manager ESR	CoA D1
NV3	Attended noise monitoring will occur monthly at the nearest residential receiver (27 Wilberforce Road) against the NMLs. Attended noise monitoring will also occur if a complaint is received or during any OOHW.	Construction	ESR	CoA C9(d)
NV4	Direct consultation with the residents at 43 & 27 Wilberforce Road and the commercial premise at 33 Wilberforce Road will be undertaken to notify them of the upcoming works and potential impacts, and to keep them informed of the ancillary facility establishment and operation.	Pre-construction	Community Liaison Officer ESR	Best Practice
Traffic and access				
TR1	Construction temporary works will be developed and implemented to minimise conflicts with the existing road network and to maximise the separation between work areas and travel lanes.	Pre-construction Construction	Project Manager	G36 Clause 3.1 CoA D5(a)
TR2	Wherever practical all removal and delivery of materials and plant will be timed to occur outside of the peak traffic periods to minimise delay in the area.	Construction	Superintendent	CoA D5(a,c)
TR3	Dilapidation surveys of local roads used by construction traffic will be undertaken prior to their use for construction as well as after construction to identify necessary repair of deterioration attributable to the impacts of construction traffic.	Pre-construction Post-construction	Project Manager	CoA D5(a)
Visual				
VIS1	The visual impact of ancillary facilities on adjacent residential areas will be minimised through the careful planning and positioning of plant and	Pre-construction Construction	Superintendent ESR	G36, Cl4.16

ID	Measure/Requirement	When to Implement	Responsibility	Reference
	material laydown areas, and specific management of lighting and potential for light spill within the identified ancillary facility.			CoA C47
VIS2	The ancillary facility and associated access points shall be rehabilitated to preconstruction condition or better, unless otherwise agreed by the landowner where relevant.	Prior to completion of project	Superintendent Foreman	G36, Cl4.16 CoA C47
VIS3	Any areas temporarily disturbed during construction will be rehabilitated as soon as feasible and reasonable following the completion of construction/operation of the ancillary facilities.	Prior to completion of project	Superintendent Foreman	G36, Cl4 CoA C11
Air Quality				
AIR1	The following air quality mitigation measures will be implemented: • Engines of on-site vehicles and plant will be switched off when not in use. • Vehicles will be maintained and serviced according to manufacturer's specifications. • Minimise the area of exposed surfaces. • Employ appropriate measures to prevent/minimise wind-blown dust from leaving the site including the use of water carts as required. • Apply barriers, covering or temporary rehabilitation to areas of disturbance. • Street cleaning will be undertaken as required to remove dirt tracked onto sealed roads. • all vehicles on site do not exceed a speed limit of 30 kilometres per hour; • all loaded vehicles entering or leaving the site have their loads covered	Pre-construction Construction	Superintendent Foreman	G36, Cl4.4 CoA C6, C7
AIR2	Dust generation will be visually inspected daily by the supervisors during all works to ensure excess dust is not generated and is not leaving site. Air quality and dust management will be formally inspected weekly and recorded in the Georgiou One App Environmental inspection template. Inspection findings will be reported in the environmental monthly report.	Construction	Supervisors, ESR	CoA C9(d)
Community Consultation				
CON1	Operators of the Hawkesbury Paddle Wheeler will not be impacted by the establishment or operation of the ancillary facility. However, they will be consulted prior to construction to identify appropriate measures to manage	Construction	Community Liaison Officer	G36 Clause 3.7.2 CoA D13

ID	Measure/Requirement	When to Implement	Responsibility	Reference
	the temporary access changes to Windsor wharf (opposite side of river the ancillary facility).		ESR	
CON2	Public access will be maintained to key areas of the Hawkesbury River during existing planned events. This relates to the southern bank as there is currently no public access to the river in the area of the proposed ancillary facility.	Construction	Superintendent ESR	G36 Clause 3.7.2 CoA D13
CON3	Affected residents and local business owners will be consulted prior to establishing the ancillary facility to identify appropriate measures to manage potential impacts.	Pre - construction	Community Liaison Officer ESR	G36 Clause 3.7.2 CoA D13
CON4	Early and ongoing consultation and communication with residents and local businesses will be undertaken to provide information on construction activities, including timing, duration and likely impacts.	Pre – construction Construction	Community Liaison Officer ESR	G36 Clause 3.7.2 CoA D13

7 ENVIRONMENTAL MONITORING AND MANAGEMENT PROCEDURES

Environmental monitoring and management procedures for the proposed additional ancillary area will be consistent with those described in Section 7 of the approved AFA.

The following management procedures will be updated, where required, to include the proposed ancillary area:

- Progressive Erosion and Sediment Control Plans
- Environmental Induction
- Toolbox talks, training and awareness
- Daily Pre-Start meetings
- Incident management
- Complaints management.

8 CONCLUSION

The proposed location of the proposed additional ancillary facility is located near the existing main compound on Wilberforce Road. The proposed additional ancillary area and the associated aspects, impacts and mitigation measures are consistent with those previously assessed in the approved AFA. No additional mitigation measures are considered warranted for the additional area as the proposed measures are consistent with the approved main site compound and stockpile area which has operated successfully.

The ancillary facility does not meet all of the location criteria as required by CoA C8, specifically:

- C8 (a) be located more than 50 metres from a waterway
- C8 (f) be separated from the nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant)
- C8 (k) be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented.

Therefore this assessment is being referred to the Secretary for approval prior to the establishment of the additional ancillary area at this location under CoA C9.

The proposed additional ancillary facility has been selected due to its location in close proximity to the construction works, and the minimal environmental impact associated with the establishment and operation. The environmental management measures outlined in Section 6 of the approved AFA will be implemented to further protect the surrounding environment from potential impacts. As a result, with proper implementation of the management measures, it has been determined that the proposed activity is likely to have minimal environmental and community impacts.

Appendix A
ESCP for Ancillary Area

WINDSOR BRIDGE REPLACEMENT PROJECT

PROGRESSIVE EROSION AND SEDIMENT CONTROL PLAN
Establishing Additional Ancillary Area - 43 Wilberforce Road

General Construction Notes

1. This plan is to be read together with the CEMP soil and water sub plan
2. Weather forecast to be regularly monitored
3. The principle of minimum disturbance to existing vegetation to be implemented with 'no go' zones isolated with flagging etc.
4. 'Offsite' and 'onsite' water to be separated
5. Priority to be placed on the construction of permanent drainage works for 'offsite' water management.
6. Temporary erosion and sediment controls to be installed prior to site disturbance where reasonable and feasible (eg sediment fences, mulch bunds)
7. If stockpiles are required, locations will be decided pre construction and added to this plan. They will be protected as required (e.g. diversion bank upslope, sediment fence down slope, temporary vegetation)
8. Controls removed or disturbed due to works to be reinstated prior to weekends and forecast rain.
9. Areas to be fully secured with controls prior to any temporary suspension of works.
10. Adequate time to be permitted to 'secure' the project prior to forecast rainfall.
11. If sumps/sediment basins are required, they are to be managed as per the CEMP (flocculation, testing and release, dust suppression etc.)
12. Temporary controls, in addition to those shown on the plan, to be constructed at key locations as required (e.g. sediment fence)
13. The tracking of mud /soil material onto local roads to be monitored and controlled
14. Dust to be controlled on site and along unsealed roads with water carts and limiting vehicle speeds etc.
15. Temporary controls to be inspected regularly with maintenance /repairs
16. This plan has been prepared as per blue book guidelines and standard drawings - volume 2, 2A and 2D
17. This plan is to be reviewed at least monthly or when conditions change (e.g. change in construction methods)

Specific Construction Notes

1. DGB stabilised hardstand to be established prior to use.
2. Sediment fence will be used on the low side of the car park
3. Stabilised earth bund around perimeter of the high side of the car park. Where possible the existing stabilised earth bund will be utilised or improved in lieu of construction of a new bund
4. Existing turf farms adjacent to the proposed ancillary area area are significantly lower than the proposed additional ancillary area and their surrounding areas, due to continuous scraping back of the earth through years of turf farming. These adjacent lands are mildly undulating and slope towards to middle at a minor to no slope gradient. The risk of "offsite" water entering the proposed ancillary area from these adjacent areas is highly unlikely.

WORK ACTIVITY:
Establishing Ancillary Area

DOCUMENT NUMBER:
010

PREPARED BY:
Chloe Redman

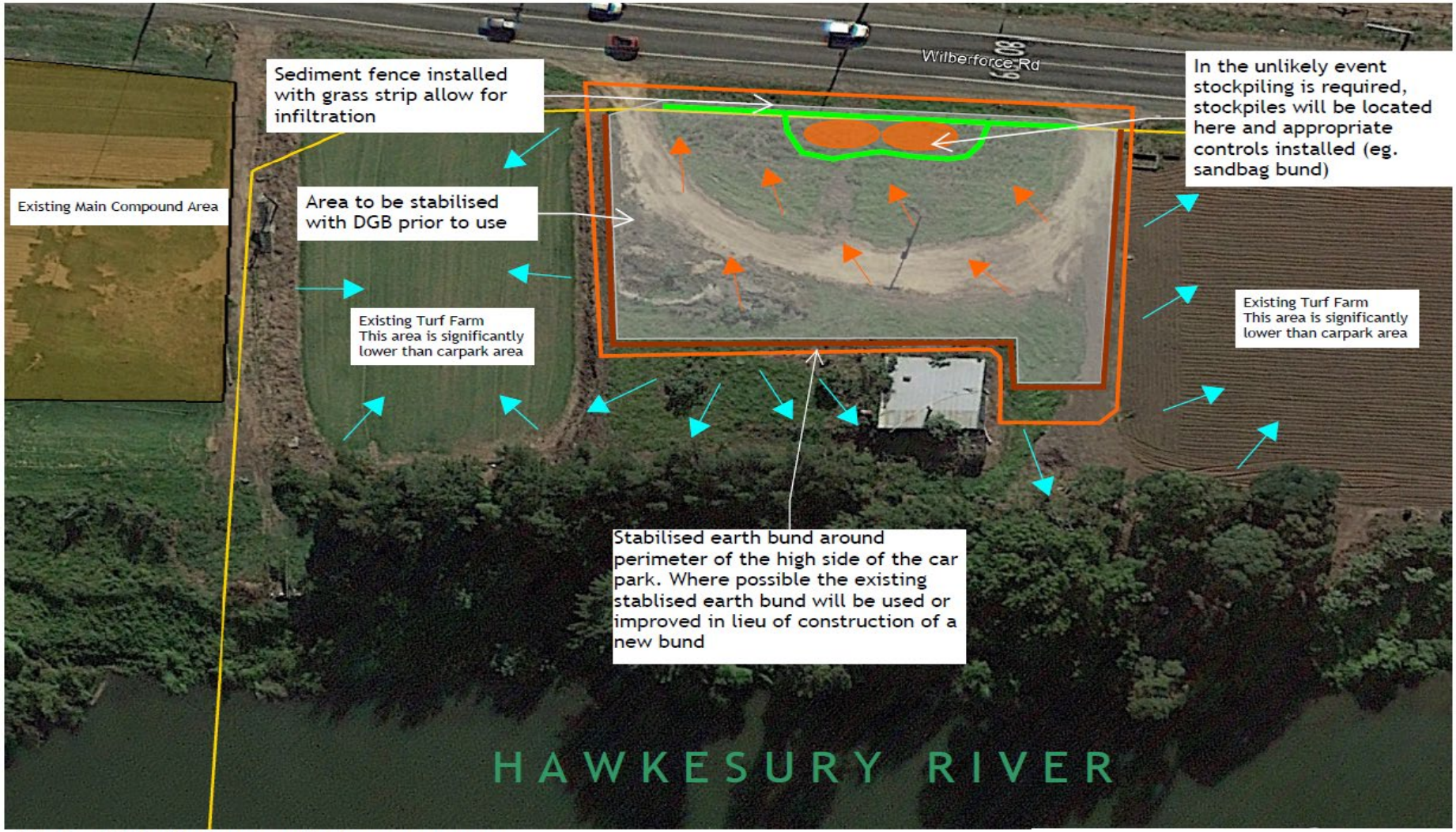
CHAINAGE/LOCATION:
Northern bank, new ancillary area - 43 Wilberforce Road

DATE:
8/5/2019

REVISION:
002

KEY:

- "Offsite" Water Flow
- "Onsite" Water Flow
- Additional Ancillary Area Boundary
- Area Stabilised with DGB
- Earth bund
- Potential Stockpiles
- Sediment Fence



Windsor Bridge Replacement Project Northern Bank, Additional Ancillary Area Erosion and Sediment Control Plan

Georgiou