

ASSESSMENT REPORT

Section 75W Modification Cobaki Estate Residential Community Development, Cobaki Lakes, Tweed Heads – Tweed Shire Local Government Area MP08_0200 MOD 3

1. BACKGROUND

This report is an assessment of a request to modify the Project Approval (MP08_0200) for a residential community development, referred to as 'the Cobaki Estate' at Cobaki Lakes in the Tweed local government area. The request has been lodged by Darryl Anderson Consulting Pty Ltd on behalf of Leda Manorstead Pty Ltd pursuant to section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

2. SUBJECT SITE

Cobaki Estate is located on the New South Wales and Queensland Border approximately 1.5 kilometres west of the Gold Coast Airport and approximately 6 kilometres inland of Tweed Heads. Adjoining the site to the east is a wetland protected by *State Environmental Planning Policy No.14 – Coastal Wetlands*, Cobaki Creek and the Cobaki Broadwater. Remnant bushland forest areas lie to the west and north of the site and are zoned for environmental protection. Agricultural land primarily used for cattle grazing adjoins the site to the south and to the north-west. To the south-west is a golf course, which is zoned rural. The site location is shown in **Figure 1**.



Figure 1: Site Location (Source: Darryl Anderson Consulting, July 2014)

The site forms a natural amphitheatre comprising a low lying and level central plain surrounded by steep rising hillsides on the northern, western and southern sides of the site. The eastern/south-eastern boundary of the whole development site has a frontage of approximately 2.8 kilometres facing Cobaki Creek and the Cobaki Broadwater.

3. SITE HISTORY

On 6 December 2010, the then Minister for Planning approved the Concept Plan for Cobaki Estate (**Figure 2**) and included zoning amendments to the Tweed Local Environment Plan (LEP) 2000 and the adoption of the site specific Cobaki Estate Development Code to guide future development and built form across the Cobaki Estate.

Concept approval was granted to develop 605.45 ha of land as a residential development comprising:

- residential development to cater for approximately 5,500 dwellings;
- town centre and neighbourhood centre for future retail and commercial uses;
- community facilities and school sites;
- open space;
- wildlife corridors and the protection and rehabilitation of environmentally sensitive land;
- road corridors and utility services infrastructure including water management areas; and
- roads and pedestrian and bicycle networks.

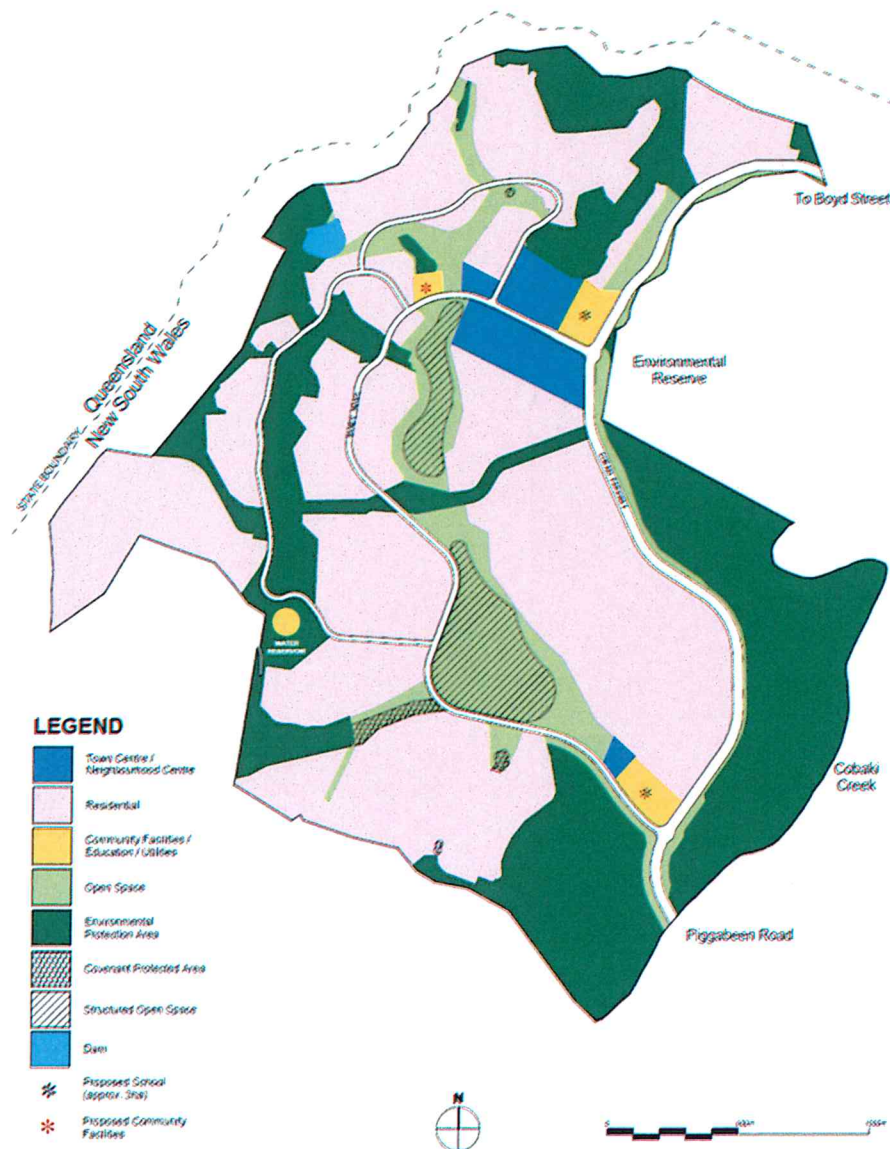


Figure 2: Cobaki Lakes Residential Community Development – Approved Concept Plan Layout (MP 06_0316)

On 28 February 2011, the then Deputy Director-General, as delegate of the Minister for Planning, granted a Project Approval for the Central Open Space Area (MP 08_0200). The approval allowed for the carrying out of the following:

- subdivision of the entire Cobaki estate into 7 lots (including residue lot for future urban development);
- staged bulk earthworks to create the central open space (COS) area, riparian corridor, structured open space, and future stormwater drainage area;
- road forming works and culverts crossing the central open space;
- road forming works across saltmarsh areas, including culverts and trunk sewer and water services;
- revegetation and rehabilitation of environmental protection areas for coastal saltmarsh; and
- establishment of freshwater wetland and fauna corridors.

This Project Approval has been modified on two occasions. On 29 May 2013, the then Director – Metropolitan and Regional Projects North approved MOD 1 involving:

- amendments to proposed offsetting arrangements for Freshwater Wetlands and Wallum Froglet, including subsequent changes to the relevant management plans; and
- approval for the use of fill from Precincts 1 & 2 for the formation of the COS area.

On 3 April 2014, the then Director – Industry, Key Sites and Social Projects approved MOD 2 which generally included: the winning of 600,000m³ of fill from Precincts 9 & 11 (500,000m³ from Precinct 9 to complete Stage 1 earthworks within the COS area and 100,000m³ from Precinct 11 to complete Stages 2 & 3 earthworks within the COS area).

Figure 3 shows the location of the precincts across the Cobaki Estate and the COS area in the context of the overall site. The borrow areas approved as part of MOD 1 (within Precincts 1 & 2) and MOD 2 (Precincts 9 and 11) are also shown at **Figure 3**.

3.1 Unauthorised Works

On 8 February 2013, the Department issued an Order under section 121B of the EP&A Act for breaches of the Cobaki Central Open Space (COS) Project Approval (MP 08_0200). Two fines were issued as a result of observations made during an inspection conducted by the Department on 4 October 2012. The fines were issued for earthworks which had been conducted on the proposed Cobaki Parkway, south of Dunn's Drain (referred to as 'the missing link') prior to a number of conditions of the Project Approval having been met, namely, failure to obtain a Construction Certificate and failing to appoint a Principal Certifying Authority (PCA).

The unauthorised works conducted on Cobaki Parkway altered the hydrological regime across the saltmarsh rehabilitation area to the west of the roadway. As such, the Department ordered the Applicant to excavate a channel to restore tidal flows to this area. A follow-up site inspection undertaken by the Department in June 2014 revealed that the channel was not working effectively, resulting in prolonged tidal inundation of the saltmarsh rehabilitation area. Subsequently the Department issued an Order to address the prolonged inundation through the implementation of measures to regulate inflows and outflows thereby restoring the natural tidal regime to the area.

Additional unauthorised works were carried out which included the placement of approximately 17,510m³ of fill material from Precinct 9 into the COS area. The Project Approval allowed the placement of fill in the COS area to be derived from Precincts 1 & 2 only. The Department has undertaken compliance action in regards to the breach. The second modification sought to address this issue through obtaining an approval to extract fill material from Precincts 9 & 11 for placement into the COS area.

4. PROPOSED MODIFICATION

On 18 July 2014, Darryl Anderson Consulting Pty Ltd on behalf of Leda Manorstead Pty Ltd (the Applicant) submitted a third Section 75W modification request to MP 08_0200.

The modification relates to the inclusion of bulk earthworks to fill a 4.3 hectare area located within the southern part of the Cobaki Estate, known as the Southern Special Purpose Precinct (SSPP) (See **Figure 1**). The SSPP adjoins the Cobaki Parkway and the Central Open Space (COS). To provide the required fill, approximately 170,185m³ of fill will be sourced from the Precinct 9 borrow area. The borrow area is proposed to be extended to enable an increased volume of fill to be extracted.

4.1. Modification Justification

The areas of the proposed Cobaki Parkway, 'Missing Link' road, Sandy Road and the Southern Special Purpose Precinct (SSPP) are all affected by soft marine clays. As a result of the soft soil conditions, there would likely be differential settlement across these areas if they are not concurrently pre-loaded and filled. If pre-loading and filling of the areas is to be undertaken independently, significant heaving and slumping of the roads may occur, which would likely result in damage to roads and infrastructure.

The modification requests amendment to the conditions to bring forward the filling of the SSPP area to enable concurrent filling of the SSPP with the adjacent roads. To enable the filling of the SSPP area, an extension to the Precinct 9 borrow area is required (Figure 4). Figure 4 shows the general location of the extension to the Precinct 9 borrow area and the SSPP.

Activities required to undertake these works include:

- bulk earthworks;
- site establishment including installation of exclusion fencing;
- removal of saltmarsh and freshwater wetland communities;
- temporary erosion, sediment and water quality control measures;
- topsoil stripping and management; and
- drainage construction.

The works associated with the filling of the SSPP area are related to the pre-loading of the adjacent roads. As noted within the Applicant's documentation, there is a risk that works not undertaken concurrently across these two areas can result in heaving, slumping and general instability. Pre-loading works have commenced on the roadways without the pre-loading of the SSPP area. As pre-loading works have already commenced in relation to the 'Missing Link' Road, through the installation of a bridging layer, the Department has recommended a condition requiring the validation of the all works associated with the 'Missing Link'. This is to be provided prior to any further works within the 'Missing Link' section of the Central Open Space. This is considered necessary to ensure that the works to date have been undertaken in accordance with industry standards and guidelines and that these early works provide a sufficient support for the ultimate roadway.



Figure 4: SSPP and the location of the extension to the Precinct 9 borrow area

5. STATUTORY CONSIDERATION

5.1 Approval Authority

On 28 February 2011, the then Deputy Director-General, as delegate for the Minister for Planning, granted a Project Approval (MP 08_0200) under Part 3A of the *Environmental Planning and Assessment Act 1979*. In accordance with clause 3 of Schedule 6A of the Act, section 75W as in force immediately before its repeal on 1 October 2011 and as modified by Schedule 6A continues to apply to transitional Part 3A projects. Pursuant to section 75W(2) of the Act, the Proponent may request the Minister to modify an approval of a project. Any request is to be lodged with the Secretary.

Under Section 75W of the Act, the Minister is obliged to be satisfied that what is proposed is indeed a modification of the original proposal, rather than being a new project in its own right. The Department notes that the proposed modification is a minor change to the approved Cobaki Central Open Space approval and would not change the purpose of the approved project. The modification would have negligible environmental impacts beyond the original approval and can be appropriately managed through conditions of approval. It is considered that the proposed modification is within the scope of Section 75W of the Act.

The Minister for Planning delegated responsibility for the determination of section 75W modification applications to Directors and Managers who report to the Executive Director, Infrastructure and Industry Assessments where:

- the relevant local council has not made an objection; and
- a political disclosure statement has not been made; and
- there are no public submissions in the nature of objections.

The modification application complies with the terms of the delegation as Tweed Shire Council (Council) did not object to the proposal, a political disclosure statement has not been made in relation to the application and no public submissions were received in the nature of objections. Accordingly, the Manager – Industry Assessments may determine the application in accordance with the Minister's delegation.

5.2 Consultation

Under section 75X(2)(f) of the EP&A Act, the Secretary is to make publicly available requests for modifications of approvals given by the Minister. In accordance with clause 8G of the *Environmental Planning and Assessment Regulation 2000*, the modification request was made publicly available on the Department's website. In addition, relevant State government authorities, Tweed Shire Council and Gold Coast City Council were notified by letter.

The Department received four submissions from public agencies, including one from Tweed Shire Council (Council) and one submission from the public. The submissions received raised no direct objections to the modification application, however raised issues in relation to the level of detail provided and broader management across the site.

The key issues raised in public authority submissions are listed in **Table 1**.

Table 1: Key issues raised by Council and Agencies

Agency	Key Issues
Tweed Shire Council (Council)	<p>Tweed Shire Council requested clarification/further information on a number of matters including:</p> <ul style="list-style-type: none">• clarification on various plans (with respect to the modifications requested to Conditions 3 and 41);• the placement of fill within the SSPP is foreshadowed by the Concept Approval, however notes that this approval was granted on the condition that the remainder of the saltmarsh community within the Saltmarsh Rehabilitation Area would be protected and restored. At present, this area has been impacted due to drainage issues resulting from works undertaken to date. Council has requested detail of the impact on the Saltmarsh and evidence of the ability to restore the Saltmarsh community within the Saltmarsh Rehabilitation Area prior to approving any further impact to this community (i.e. by works proposed within the modification);• requested additional information on the precise extent of works within Precinct 9 including existing vegetation and detail of vegetation to be removed;• sought clarification on the Biodiversity Offset Strategy required under the Commonwealth approval, particularly in relation to the foraging habitat of the Grey-headed Flying Fox within Precinct 9;• requested specific environmental management controls relevant to the works associated with the proposed modification;• requested the final Saltmarsh Rehabilitation Plan prior to approval as the modification relates to the permanent removal of the adjacent saltmarsh area;• requested consideration of ASS management measures; and

Agency	Key Issues
	<ul style="list-style-type: none"> considered noise and vibration, air quality and contamination impacts to be manageable with the implementation of measures proposed.
Office of Environment and Heritage (OEH)	<p>OEH raised no objection to the proposed modification and requested:</p> <ul style="list-style-type: none"> the location, extent, biodiversity features and environmental safeguards associated with both the proposed borrow area and the filling of the SSPP should be clarified in the context of the extent to which the clearing involved is consistent with the clearing assessed within prior approvals; that the areas of Endangered Ecological Communities (EEC) within both the borrow area and SSPP be provided; requested that the Construction Environmental Management Plan (CEMP) should be refined to include measures relevant to the area of the proposed modification to improve the capacity for execution and verification of actions; consideration of assisted restoration within the saltmarsh area utilizing topsoil, seed bank and living plants from the coastal saltmarsh EEC to be removed from the SSPP; and additional consideration of flooding in the context of the overall proposal and reviewed in light of the findings of the Tweed Valley Floodplain Risk Management Study and Plan (now finalised). <p>OEH also acknowledged that the Cultural Heritage Management Plan details the appropriate procedures to manage Aboriginal cultural heritage values associated with the modification and that the existing approval provides for appropriate management of Aboriginal cultural heritage.</p>
Department of Primary Industries (DPI) (including NSW Office of Water and NSW Fisheries).	<p>NSW Office of Water raised no objection to the proposed modification. NSW Office of Water noted the following matters:</p> <ul style="list-style-type: none"> it is highly unlikely that groundwater would be intercepted, however indicated that if groundwater is intercepted, the Applicant must contact the NSW Office of Water to obtain relevant licenses; and recommended that mitigation measures outlined in the Cobaki Estate SSPP Environmental Assessment report be implemented if Acid Sulphate Soils (ASS) / Potential Acid Sulphate Soils (PASS) are disturbed during the works to minimize impacts upon surface and groundwater. <p>NSW Fisheries raised no objection to the proposed modification and:</p> <ul style="list-style-type: none"> notes that the works would impact directly upon 3.25 hectares of saltmarsh communities however these impacts were considered and offset in several conditions of the determination of MP08_0200; notes that works undertaken during the previous 12 months (not subject to the modification) and works proposed are being proposed/undertaken without having a holistic and strategic consideration of the consequences, particularly relating to the ongoing sustainability of the saltmarsh; is concerned that works affecting saltmarsh are being undertaken in an <i>ad hoc and piecemeal fashion</i>; and requests the final saltmarsh rehabilitation plan (that satisfies all aspects of Condition 65) be prepared prior to undertaking the subject works.
Rural Fire Service (RFS)	<p>The RFS raised no objection to the proposed modification and had no concerns or issues in relation to bushfire.</p>

5.3 Public Submissions

The Department received one public submission making comments on the proposed modification in relation to the high environmental and indigenous significance of the Cobaki Estate. The submission noted that the unauthorised works across the site have resulted in environmental impacts with the site being compromised and it was recommended that the Applicant undertake further assessment of ASS conditions and the hydrological regime (including impacts on the landscape and soils) across the site. The submission noted that unauthorised works undertaken at the Cobaki Estate in the previous 2 years have significantly altered the hydrological regimes of the site and the submission noted that that flows across the site are now potentially being influenced by multiple factors.

5.4 Response to Submissions

The Department requested that the Applicant provide a Response to Submissions (RTS) to address the issues raised in the Council and public submission. The Applicant provided an RTS on 3 October 2014. The RTS did not alter the scope of the proposed modification however provided additional information and clarification around a number of issues raised within the submissions. Generally, the Department is satisfied that most issues have been addressed, however has recommended conditions, including requiring the Applicant to:

- validate the prolonged stability of the Missing Link roadway prior to its operation; and
- within three months, submit for approval the final Saltmarsh Rehabilitation Plan.

These are discussed in further detail within **Section 6**.

6. ASSESSMENT

The Department's assessment of potential impacts associated with the filling of the SSPP area and extraction of additional fill from Precinct 9 is based on the following activities that will be required to enable the filling of the SSPP concurrently with the filling of the roadways:

- bulk earthworks;
- site establishment including installation of exclusion fencing;
- removal of saltmarsh and freshwater wetland communities;
- temporary erosion, sediment and water quality control measures;
- topsoil stripping and management; and
- drainage construction.

The Department has considered the Environmental Assessment report, the issues raised in the submissions, and the Applicant's RTS in its assessment of the proposed modification. The Department identified the following issues associated with the proposed activities:

- impacts on ecological values, including native vegetation, threatened flora species, and endangered ecological communities (EECs) (Section 6.1);
- impacts on soils and water (Section 6.2); and
- other environmental issues including air quality and dust emissions, geotechnical considerations, groundwater and acid sulfate soils, and cultural heritage (Section 6.3) which were considered to be minor.

The Department's considerations and recommendations in respect to the above issues are detailed in the following sections.

6.1 Ecology

The original Concept Plan approval envisaged that the SSPP portion of the site would be filled for the purpose of a school. The Concept Plan and Project Approval accept that clearing would be required to enable the SSPP site to be filled and utilised as a school site. Conditions were recommended that presented a combination of offsets and rehabilitation works to minimise and manage the environmental impacts associated with impacts upon ecological values across the estate and the SSPP site.

The acceleration of the 'Missing Link' works resulted in impacts that had not been anticipated and as such, further assessment of the ecological values and implementation of rehabilitation works was required.

Endangered Ecological Communities

Six Endangered Ecological Communities (EECs) as listed under Schedule 1 of the TSC Act have been recorded on the site, three of which occur in the vicinity of the SSPP. An endangered ecological community is defined under the TSC Act as a community that is facing a very high risk of extinction in New South Wales in the near future.

Table 2 lists the three endangered ecological communities and presents the percentage of the EEC that is to be cleared from the SSPP as a proportion of the overall clearing of that species to be undertaken across the Cobaki Estate.

Table 2: Extent of impact upon each Endangered Ecological Community – SSPP, Cobaki Estate
(source: SMEC, July 2014)

Endangered Ecological Community	Approved area to be cleared from the Cobaki Estate (ha)	Area to be cleared from the SSPP (ha) (as a percentage of the area to be cleared)	Condition and impacts
Freshwater Wetland	24.12	0.3 (1.24%)	<ul style="list-style-type: none">• Areas of Freshwater Wetland within the SSPP have been heavily degraded due to previous landuses (drain construction, grazing, slashing).• Removal of the Freshwater Wetland within the SSPP is not anticipated to significantly impact upon the regional distribution of this community.
Swamp Oak Floodplain forest	0.73	0.17 (23.3%)	<ul style="list-style-type: none">• Swamp Oak Floodplain Forest occurs in association with drainage lines that flow into Cobaki Creek.• The species occurrence along constructed drains aligns with areas previously actively

Endangered Ecological Community	Approved area to be cleared from the Cobaki Estate (ha)	Area to be cleared from the SSPP (ha) (as a percentage of the area to be cleared)	Condition and impacts
			<p>grazed by cattle, resulting in introduced grasses and agricultural weeds in some areas.</p> <ul style="list-style-type: none"> The removal of the EEC within the SSPP and across the broader Cobaki Estate is not considered to have a significant impact upon this community.
Coastal saltmarsh in the NSW North Coast bioregion	9.69	3.25 (33.5%)	<ul style="list-style-type: none"> Areas of saltmarsh at the Cobaki Estate are subject to tidal inundation. As a result of the unauthorised works associated with the construction of the Missing Link and Cobaki Parkway adjoining the SSPP, the area of saltmarsh within the SSPP was initially dried (i.e. tidal inundation was prevented) and subsequently inundated with flows (i.e. permanently inundated). As a result of the altering hydrological regimes in the area of the saltmarsh rehabilitation area and the SSPP, the area to be cleared as part of the modification works has not been clearly delineated and an accurate on-ground survey was not completed at the time of lodging the environmental assessment. The condition of this EEC within the SSPP has not been confirmed.

The Applicant considers that works that has the potential impacts upon EECs are not likely to significantly impact the regional distribution of these communities.

Native Vegetation

A total of 22 vegetation communities have been mapped across the site, of which five were recorded within Precincts 9 and the SSPP. The proposed filling of the SSPP will involve disturbance of the vegetation communities located within the SSPP. **Table 3** lists the species to be cleared and the total area to be cleared (approved as part of previous applications), as well as the area proposed to be cleared as part of this modification application. It is noted that the area proposed to be cleared as part of the modification is not in addition to what has previously been approved, rather a portion of the vegetation that has previously been granted approval to be cleared as part of the Concept Plan.

Table 3: Existing Vegetation Communities and associated areas to be cleared within the SSPP (source: SMEC, July 2014)

Vegetation Community	Area to be removed from the Cobaki Estate site (ha)	Area proposed to be removed from SSPP area (ha)	Conservation Status
Community 11 – Low closed grassland (<i>Sporobolus virginicus</i> , <i>Triglochin striata</i> +/- <i>Casuarina glauca</i>)	9.69	3.25 (33.5% of total area approved to be removed)	High
Community 12 – rushland/sedgeland/grassland (mixed aquatic species)	24.12	0.30 (1.25% of total area approved to be removed)	High
Community 14 – Dams and drainage (mixed aquatic species)	0.77	0.06 (7.8% of total area approved to be removed)	Low
Community 15 – Low open forest/woodland (<i>Casuarina glauca</i> +/- Mixed species)	0.73	0.17 (23.3% of total area approved to be removed)	High
Community 16 – Slashed grassland/heathland/sedgeland (Mixed species)	43.52	0.23 (0.5% of total area approved to be removed)	Low

The proposed works also have the potential to indirectly impact on existing adjacent vegetation through the introduction of weeds, increased sediment flow, and alteration of hydrological regimes.

Vegetation within approved rehabilitation areas are to be retained, restored and protected from the impacts of future development. In addition, the Applicant has also committed to providing additional protection around this species through the implementation of a 5 metre buffer area.

In order to manage indirect impacts upon native vegetation during construction works, the Applicant has proposed various mitigation measures (as presented within the overall CEMP for the first stage of works at the Cobaki Estate) including:

- parawebbing/exclusion fencing around vegetation protection areas / threatened flora;
- weed control within rehabilitation and management areas;
- installation of erosion and sediment controls to protect vegetation areas and drainage lines; and
- ongoing education of site staff through toolbox talks.

The Department supports the commitments of the Applicant and acknowledges that the impacts upon native and threatened flora can be managed with the implementation of these measures.

Fauna and Habitat

Three threatened fauna species listed under the NSW *Threatened Species Conservation Act 1995* (TSC Act) have been recorded within or adjacent to the SSPP. The species were located during previous fauna surveys undertaken as part of the assessment of the Concept Plan application (MP 06_0316) and additional surveys conducted during 2013/14 by SMEC. **Table 4** lists the three threatened fauna species and provides conclusions on the overall level of impact likely to occur as a result of the proposed works to fill the SSPP.

Table 4 : Potentially Affected Threatened Fauna Species and direct impacts associated with the proposed modification

Species	Type of Impact	Impacts (SMEC, July 2014)
Black-necked stork	Some loss of habitat.	<ul style="list-style-type: none"> • Approximately 142 hectares of potential forage habitat exists within the low-lying eastern and south-eastern portions of the Cobaki Estate. • Sightings of the Black-necked stork have occurred within the SSPP with 4 hectares of the 142 hectares of potential forage habitat occurring within the SSPP. • Proposed sediment and erosion control works surrounding the SSPP may impact on existing foraging habitat. • Given the high mobility of the species, impacts are not considered significant in relation to the regional distribution of existing habitat.
Osprey	Potential disturbance to habitat.	<ul style="list-style-type: none"> • Three Ospreys and a stick nest have been identified approximately 300 meters south-east of the SSPP. • Human disturbance near the nest is not expected. • The proposal is considered highly unlikely to result in significant impacts on the species.
Wallum Froglet	Some loss of habitat.	<ul style="list-style-type: none"> • Approximately 79 hectares of forage habitat is located across the Cobaki Estate during suitable conditions (i.e. following heavy rainfall). • Approximately 0.23 hectares of potential forage habitat exists within the SSPP. • The potential forage habitat within the SSPP is not considered to be 'core' habitat (i.e. containing physical and ecological characteristics suitable for breeding and/or refuge) and as such, the works associated with the proposed modification are unlikely to result in significant impacts upon the local population.

In addition to the direct impacts presented within **Table 4**, the Applicant's Environmental Assessment notes that the filling of the SSPP has the potential to indirectly affect threatened fauna through:

- mortality and loss of breeding/foraging habitat due to changes in land use; and
- habitat degradation due to altered natural hydrological regimes and increased pollutants.

In order to protect ecological values during construction works, the Applicant has proposed measures (as presented within the overall CEMP for the first stage of works at the Cobaki Estate) including:

- the flagging of identified habitat features (hollows, nests);
- threatened species inductions for all contracted staff;
- the installation of fauna-friendly fencing; and
- annual fauna monitoring.

Department's Consideration

The Department has reviewed the ecological impacts of the proposed modification in consultation with OEH, NSW Fisheries and Council and has concluded that the proposed modification will not significantly impact on ecological values beyond a level that has already been assessed as part of previous applications.

The Department has previously acknowledged as part of the assessment of the Cobaki Estate Concept Plan and Project Application that the Cobaki Estate is likely to impact on a number of ecological values recorded on or adjacent to the site. The Department has required the Applicant, as part of both of the approvals (Concept Plan and Project Application), to mitigate these impacts, through habitat enhancement works and implementation of habitat rehabilitation and fauna management plans.

Notwithstanding, the Department acknowledges that the unauthorised works undertaken on the Missing Link have resulted in changes to the hydrological regime of the site and subsequently changes to areas of ecological values, including the Saltmarsh Rehabilitation Area that was intended to be rehabilitated.

The Department, in consultation with Council, OEH and NSW Fisheries have recommended the strengthening of the condition relating to the Saltmarsh Rehabilitation Plan and associated works. The Department recommends that the final Saltmarsh Rehabilitation Plan be submitted to the Secretary for approval within three months of the date of the approval of this modification application. In addition, a condition has been recommended that works detailed within the plan commence upon approval. The Department has liaised closely with Council who support this condition.

To ensure that the plan achieves the best possible environmental outcome, a condition has been recommended that the plan detail the proposed program for the implementation of works, including:

- timelines;
- performance completion criteria; and
- trigger values to enable adjacent works to proceed.

The inclusion of this condition is intended to promote the development of a comprehensive rehabilitation strategy that can be implemented. The establishment of a timeline enables the Proponent to clearly define timeframes where various works are to occur and the trigger values are intended to act as hold points to ensure that works are progressing as anticipated.

The Department is satisfied that Project Approval ensures that the Saltmarsh Rehabilitation Plan is to be prepared by an appropriately qualified scientist and considers these additions to the requirements of the conditions to be enhancements to the overall plan.

The filling of the SSPP area and the extraction of fill from Precinct 9 have been considered within the approved Concept Plan. It is inferred that this would require bulk earthworks to achieve a profile that is consistent with what is required to create future residential lots and potentially a school facility within the SSPP area. The Department therefore acknowledges that the impacts upon ecological values have been conceptually approved, and generally supports the proposed works within the SSPP and Precinct 9, with the implementation of the conditions of the this modification, the Project Approval and successful implementation of mitigation measures outlined in the EA report (SMEC 2014) and overarching CEMP.

6.2 Soils and Water

The tidal flows across the southern area of the Cobaki Estate have been altered significantly since the approval of the Concept Plan and Project Application. An access track was approved by Council to enable geotechnical investigations to be undertaken in the immediate surrounds of the Saltmarsh Rehabilitation Area and the proposed roads (Cobaki Parkway, 'Missing Link' and Sandy Road). Works were undertaken to pre-load the full width of these proposed roads (as opposed to the approved access track). The pre-loaded 'bridging layer' of the roads resulted in a restriction of tidal flows into the Saltmarsh Rehabilitation Area. The Department issued two orders regarding these works.

Acid sulfate soils (ASS) are a characteristic of low lying coastal environments in eastern Australia. Undisturbed, these soils remain in an anaerobic state beneath the surface, however once exposed to oxygen they become acidic. The assessment completed by Gilbert and Sutherland (2009) identified ASS in the surrounds of the SSPP. The assessment recommended a number of measures to manage these soils, including that lime be applied during fill emplacement.

Department's Consideration

The Department has reviewed the hydrological and potential ASS impacts of the proposed modification in consultation with NSW Fisheries, OEH, Council and the NSW Office of Water and notes that these aspects can be managed to minimise impacts upon the environment.

In consultation with NSW Fisheries and OEH, the Department notes that the works proposed as part of this modification have not fully considered the consequences of the hydrological regime, particularly across the Saltmarsh Rehabilitation Area and SSPP. The Department acknowledges the complexities in the hydrological regime and tidal flows across the southern area of the Cobaki Estate. As such, the Department has recommended a condition requiring the Proponent to submit, within three months of the date of the determination of this modification application, the final Saltmarsh Rehabilitation Plan for approval. The Department notes the location of the Cobaki Estate in the floodplain and the complexity of the hydrological regimes occurring across the site, particularly in relation to the SSPP. The Department considers the condition of the existing approval relating to the Saltmarsh Management Plan, including consideration of the hydrological regime and tidal flux levels would address the relevant aspects of flooding across this area of the site.

Acid Sulfate Soils

In relation to ASS, the Department reviewed the environmental assessment in consultation with the NSW Office of Water and determined that ASS may be encountered during the filling works proposed as part of the modification. The NSW Office of Water recommended that the measures presented within the CEMP (and re-stated within the Environmental Assessment Report (SMEC, 2014) be implemented to minimise impacts of acidic soils upon surface and groundwater. Council also stated that the ASS impacts should be considered in regards to the placement of fill (and potential 'squeezing out' of acidic soils and exposing to air), rather than the impacts associated with earthworks only. Based on the recommendations of the Gilbert and Sutherland report, the Department has recommended a condition that the ASS Management Plan be updated to consider the application of lime to the SSPP during fill placement.

The Department has considered the other comments made by Council, OEH, NSW Office of Water and Fisheries NSW, the information provided in the environmental assessment and RTS and is generally satisfied that other matters raised have been or can be resolved through the adherence to existing conditions of the Concept Plan and Project Approval.

6.3 Other Environmental Issues

A number of other assessment issues were identified in the Environmental Assessment Report (SMEC, 2014). These environmental aspects are considered to be minor in nature and are assessed in **Table 5**.

Table 5: Assessment of other issues

Issue	Assessment	Recommendation
Noise and Vibration	<ul style="list-style-type: none">The noise assessment undertaken as part of the previous modification (MP08_0200 MOD 2) which sought approval for the extraction of fill from Precincts 9 and 11 (CRG, 2013), concluded that sensitive receptors were unlikely to experience adverse noise impacts during excavation and bulk earthworks.As the SSPP is located at an increased distance from these sensitive receptors, works associated with the proposed modification are unlikely to result in any additional adverse noise impacts.There are existing conditions within the Project Application that require the Application to implement best management practice, including all reasonable and feasible measures to prevent and minimise noise and vibration during construction and operation.	<ul style="list-style-type: none">No further conditions are considered required as part of this modification.

Issue	Assessment	Recommendation
Air Quality	<ul style="list-style-type: none"> There is potential for the proposed works within Precinct 9 and the SSPP to result in: <ul style="list-style-type: none"> the release of pollutants; greenhouse gas emissions; odour emissions; and temporary reduction in amenity upon sensitive receptors. These impacts are not considered to significantly impact upon air quality beyond a level that has already been assessed as part of previous applications. There are existing conditions within the Project Application that require the Application to implement best practice management and mitigation measures to minimise dust emissions from the site. 	<ul style="list-style-type: none"> No further conditions are considered required as part of this modification.
Dangerous and Hazardous Goods	<ul style="list-style-type: none"> There is potential for the proposed works within Precinct 9 and the SSPP to require the storage of fuels, chemicals, cleaning products, solvents, oil and other lubricants. The Applicant has committed to storing hazardous and dangerous goods in appropriate areas at the site compound in accordance with relevant legislation, manufacturer's instructions, the MSDS and Australian Standard 1940: 2004 The storage and handling of flammable and combustible liquids. There are existing conditions within the Project Application that require the Application to store and handle dangerous goods and hazardous materials in accordance with the Australian Dangerous Goods Code and AS 1940-2004: The storage and handling of flammable and combustible liquids. 	<ul style="list-style-type: none"> No further conditions are considered required as part of this modification.
Heritage	<ul style="list-style-type: none"> A Cultural Heritage Management Plan has been prepared for the Cobaki Estate and approved by the Department (Everick, 2010). In accordance with this plan, no specific cultural heritage impact mitigation works are required within the SSPP area. As the areas of Precinct 9 and the SSPP are highly disturbed, the potential for Aboriginal finds is considered low. The Department and OEH acknowledges the Cultural Heritage Management Plan presents appropriate procedures to manage Aboriginal cultural heritage values associated with the Cobaki Estate. 	<ul style="list-style-type: none"> No further conditions are considered required as part of this modification.

7. CONCLUSION

The Department reviewed the environmental assessment, agency and public submissions and the Applicant's Response to Submissions and concluded that a number of requirements are to be met prior to the commencement of these works. These include:

- validation of the pre-loading works undertaken of the Missing Link and Cobaki Parkway;
- submission of the final Saltmarsh Rehabilitation Plan (as required by Condition 65 of the Project Approval); and
- undertaking works associated with the proposed modification in accordance with all measures presented within the CEMP.

8. RECOMMENDATION

It is recommended that the Manager, Industry Assessments, as the delegate of the Minister for Planning:

- **consider** the findings and recommendations of this report;
- **approve** the development application under Section 75W of the EP&A Act; and
- **sign** the attached Instrument of Modification (**Appendix C**).

R Sommer
Senior Planner
Industry Assessments

 13/2/15.
Chris Ritchie
Manager
Industry Assessments

APPENDIX A: MODIFICATION REQUEST MP08_0200 MOD 3

Refer to <http://majorprojects.planning.nsw.gov.au>

APPENDIX B: MODIFICATION INSTRUMENT 08_020 MOD 3 PROJECT APPLICATION
