

Natural Environment Site Strategy

176-228 Mountain Ridge Road
South Maclean
Prepared for Orchard Development Management
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PLANS AND DOCUMENTS
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1. Introduction

1.1. Requirements of the site strategy

This Natural Environment Site Strategy (NESS) has been compiled as per anticipated approval requirements for Orchard Development Management Pty Ltd. ATF Orchard Development Unit Trust's (Orchard Development Management Pty Ltd) South Maclean project. While not in response to approval conditions, this NESS has been prepared based on anticipated requirements with reference to a number of approvals issued in the area and based on feedback from **Economic Development Queensland (EDQ)**. The following components are included within this NESS:

- i. outline measures to conserve and enhance the site's biodiversity values (areas of ecological significance, Koala habitat areas, waterways and vegetation management);
- ii. identify strategies to avoid, minimise and mitigate the clearing of remnant vegetation containing endangered regional ecosystems;
- iii. identify management plans to be provided to address the clearing of remnant vegetation containing endangered regional ecosystems;
- iv. identify rehabilitation strategies for any corridors of native vegetation to improve habitat extent and wildlife movement;
- v. identify any buffering to areas of Significant Biodiversity Values and which have associated conservation, biodiversity, habitat or scenic amenity values;
- vi. identify strategies for fauna and flora management of the site, and determine corridors, proposed road crossing designs for expected fauna utilisation (if deemed required) and rehabilitation areas (such as for koala habitat);
- vii. detail the measures outlining how and when Koala habitat obligations for the Greater Flagstone PDA as detailed in the PDA Guideline No. 17 Remnant Vegetation and Koala Habitat Obligation in Greater Flagstone and Yarrabilba PDAs will be delivered;
- viii. identify strategies to prevent land degradation and the management of dispersive/sodic soils;
- ix. identify strategies to rehabilitate major watercourses;
- x. identify strategies for bushfire management;
- xi. identify strategies for pest and weed management;
- xii. identify strategies for monitoring vegetation rehabilitation; and
- xiii. identify strategies for rehabilitation of stream banks of major watercourse areas previously disturbed by man-made intervention to create riparian stability

This overarching site strategy will need to be amended from time to time and is intended to guide future development decisions in relation to the development located at 176-228 Mountain Ridge Road, South Maclean.

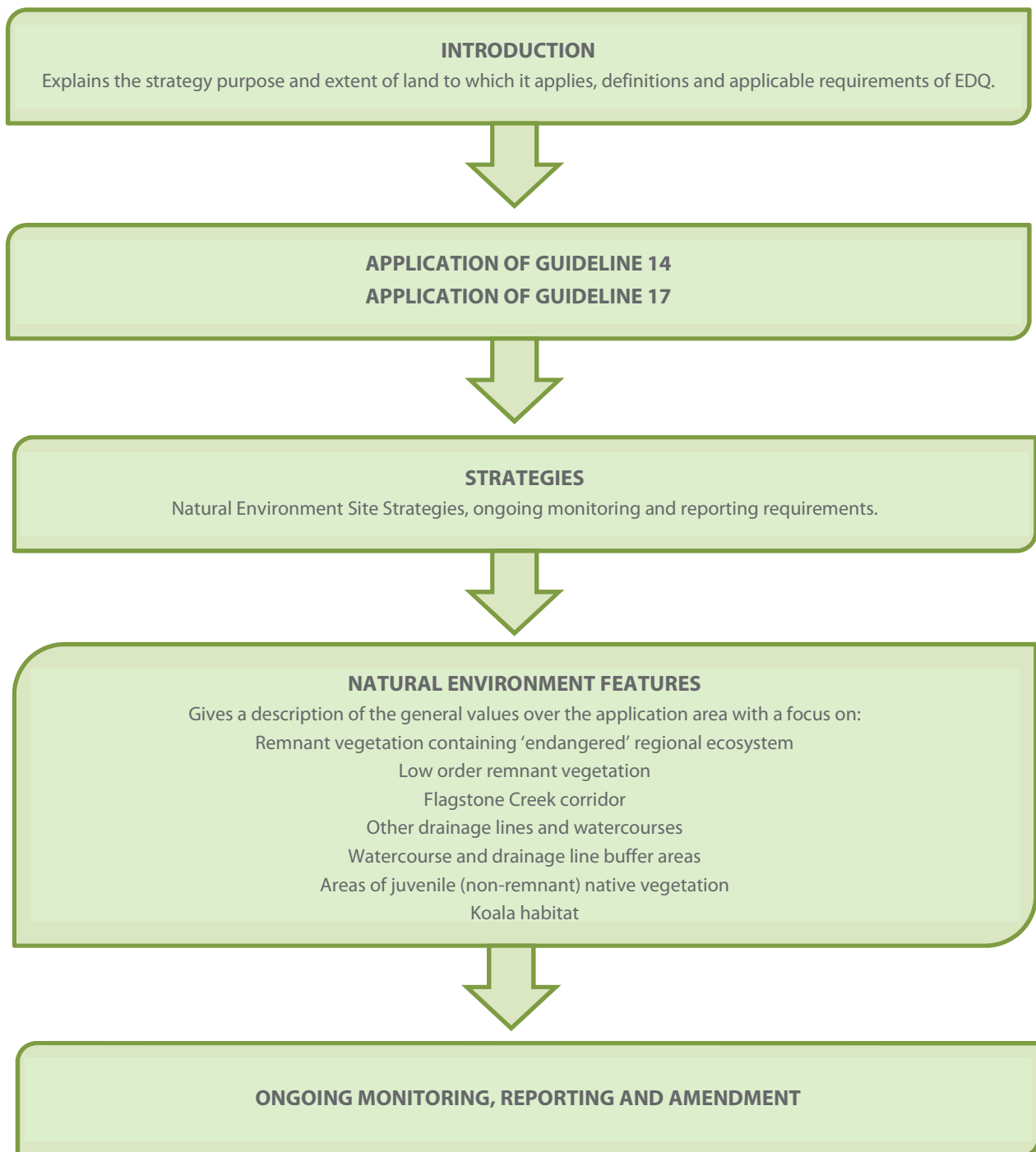
1.2. Administrative definitions

- **Developer** – Means an entity with effective control of the development of a parcel of land within the application area.
- **Application area** – Refer to **Plan 1** in **Appendix 1**.
- **Guideline 14** – Means PDA Guideline No. 14 for environmental values and sustainable resource use (May 2015).
- **Guideline 17** – Means PDA Guideline No. 17 for remnant vegetation and koala habitat obligations in Greater Flagstone and Yarrabilba PDA's (May 2015).
- **ICOP** – Means the infrastructure charging offset plan in the Greater Flagstone urban development area (July 2013).
- **EDQ** - Means the Minister for Economic Development Queensland established under the *Economic Development Act 2012*, which supersedes the Urban Land Development Authority and repeals the *Urban Land Development Authority Act 2007 (QLD)*.
- **PDA Development Scheme** – Means the Greater Flagstone Urban Development Area Development Scheme (October 2011).

2. Structure

This NESS is to be read in conjunction with the technical reports, whole of site strategies and infrastructure master plans over the relevant parts of the application area.

This overarching site strategy for the management of the natural environment follows the structure outlined below:



3. Guidelines and relevant information

This NESS is prepared within the parameters of Guideline 14 and Guideline 17. Site specific alterations or legislative departures from the above are outlined in **section 3** and **section 4** of this NESS.

- The application area contains 'endangered' regional ecosystem on the northern and southern banks of Flagstone Creek. Refer to **Plan 2 (Appendix 1)** for the extent of 'endangered' regional ecosystem on-site.
- The application area contains koala habitat areas, defined in Guideline 17 as:

An area mapped on State Planning Policy 2/10: Koala Conservation in South East Queensland, SEQ Koala Protection Area Koala Habitat Values maps as:

- *Bushland habitat; or*
- *Having high and medium value suitable for rehabilitation habitat types.*

Refer to **Plan 3 (Appendix 1)** for the current koala habitat values mapping.

- References (including references in Guideline 14 and Guideline 17) to an Act, policy, mapping or other document shall be applied as the Act, policy, mapping or document as at 8 February 2019 or as specified herein.
- At the time of submission of the NESS, an *Environment Protection & Biodiversity Conservation Act 1999* (EPBC Act) controlled action status referral was under assessment. If, through this proposal, an alternative offset outcome is conditioned for a prescribed Matter of National Environmental Significance (MNES), this is considered to take precedence over any State government offset requirements for the same prescribed matter. Section 15, items 1 to 5, outlined below and relating to the non-duplication clauses of the Queensland Government's *Environmental Offsets Act 2014* (EO Act) are made applicable through this site strategy to the application area:

15 Restriction on imposition of offset condition

- (1) An administering agency may impose an offset condition on an authority only if—
 - (a) the same, or substantially the same, impact has not been assessed under a relevant Commonwealth Act; and
 - (b) the same, or substantially the same, prescribed environmental matter has not been assessed under a relevant Commonwealth Act.
- (2) Subsection (1) applies whether or not the assessment resulted in the imposition of an offset condition.
- (3) However, subsection (1) does not apply if the prescribed environmental matter to which the condition relates is a protected area.
- (4) An administering agency that is a local government may impose an offset condition on an authority only for the following—
 - (a) a matter of local environmental significance;
 - (b) another prescribed environmental matter that is further prescribed by regulation as relevant for this subsection.
- (5) In this section—

relevant Commonwealth Act means—

 - (a) the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) as a controlled action; or
 - (b) the *Great Barrier Reef Marine Park Act 1975* (Cwlth); or
 - (c) another Commonwealth Act prescribed by regulation.

- Notwithstanding clause 15(4) of the extract above, no offsets are required for Matters of Local Environmental Significance (MLES).
- A site and project specific Bushfire Hazard Assessment and Management Plan will be prepared and submitted for endorsement / approval. The outcomes and requirements of this plan will consider the strategies adopted in this NESS.
- Notwithstanding any of the requirements of this NESS, the Developer will not be required to perform any rectification works to parts of the site that have been transferred / dedicated to other parties and accepted off-maintenance.

4. Strategies

4.1. NESS– Flagstone Creek corridor, development land and local park(s)

Site strategies have been developed to manage environmental and development outcomes for all land included within this application area. The site strategies include 6 columns listed as:

- Element;
- Overall Outcomes;
- Strategies / Actions;
- Design Standards / Resources;
- Timing (indicative); and
- Achievement Criteria.

Orchard Development Management Pty Ltd is responsible for the implementation, monitoring and reporting for all site strategies. For most elements' strategy outcomes vary for land use areas.

For each element, the 'avoid, minimise, mitigate and restore or offset' hierarchy has been adopted. It is noted that the **Orchard Development Management Pty Ltd** Mountain Ridge Road NESS is not preceded by a higher-level approval and thus does not link each strategy back to an approval condition as per the majority of NESS' applied within the PDA.

Flagstone Creek corridor

The following overall outcomes and design standards apply to works within and adjoining the designated Flagstone Creek corridor (riparian zone):

- Secure and dedicate/transfer to Council a robust and sustainable portion of the site retaining the highest quality ecological values for conservation purposes.
- Undertake ecological restoration and waterway corridor restoration measures prior to dedication to Council.
- Allow for controlled passive nature based recreational uses.

Development land

The development land is defined as the balance site area that is not included in the designated Flagstone Creek corridor (riparian zone). The majority of this area will be developed to a minimum net residential density of 18 dwellings per hectare; however, there may be opportunities to retain environmental values in open space subject to earthworks and servicing requirements. It is noted that development at this density is generally prohibitive of the retention of major or functional areas of environmental values. This whole of site strategy seeks to retain the highest ecological values within the designated Flagstone Creek corridor (**Appendix 2**).

The following overall outcomes and design standards apply to the development land:

- Ensure systems and processes for assessment, reporting, protection and management are based on leading practice ecological guidelines and relevant legislative frameworks.
- Explore and detail specific opportunities to retain ecological features throughout the site by incorporating detailed environmental data into the site design process.
- Outline the legislative requirements for all potential or actual threatened plants and animals as scheduled at the State Government and Commonwealth Government Level.

Local Park(s)

For local park outcomes and design standards refer to the concept landscape design plan prepared by SLR Consulting.

Element	Overall outcomes	Strategies / actions	Design standards / resources	Timing (indicative)	Achievement criteria
Survey, identification and reporting	Identify significant biodiversity values within and adjoining the development land.	- Desktop assessments using local, State and Commonwealth environment databases and mapping. - Robust field surveys that are appropriately timed and conducted for expected biodiversity values. - Use the information surveyed and identified in the significant biodiversity values assessment and ecological assessment report of the Flagstone Creek corridor to prioritise environmental features.	Where suitable, parts of the following documents and standards will assist in measuring the overall outcome: - Guideline 14 - PDA Development Scheme - State and Commonwealth survey guidelines including: - EPBC Significant Impact Guidelines, including specific guidelines for expected species - DSITIA Terrestrial Vertebrate Fauna Survey Guidelines - NCA Protected Plants Flora Survey Guidelines - Database and mapping references including: - EPBC PMST database - EHP wildlife online database - EHP NCA protected plants mapping - NRM regulated vegetation management mapping - Koala SPRP mapping - SARA mapping - SPP biodiversity values mapping	Context Plan or RoL application.	Context Plan and RoL applications are accompanied by significant biodiversity assessment report.
Remnant vegetation containing 'endangered' regional ecosystems, and vegetation within the Flagstone Creek corridor and riparian zone.	Retain and protect areas of remnant vegetation containing 'endangered' regional ecosystems, and vegetation within the Flagstone Creek corridor and riparian zone.	- Development and infrastructure avoids the clearing of remnant vegetation containing 'endangered' regional ecosystems, and minimises clearing vegetation within the Flagstone Creek corridor and riparian zone. - Only compatible uses will occur within the outer 50 m buffer areas (i.e. stormwater treatment and passive recreation), where tree canopy removal will be minimal. - Development minimises impacts on areas of remnant vegetation containing 'endangered' regional ecosystems by providing buffers, ideally inclusive of road, between the development areas and any retained areas of remnant vegetation containing 'endangered' regional ecosystems. - Development enhances areas of remnant vegetation containing 'endangered' regional ecosystems and additional areas within the Flagstone Creek corridor by providing for weed management and rehabilitation efforts.	Where suitable, parts of the following documents and standards will assist in measuring the overall outcome: - Guideline 14 - Guideline 17 - SDAP Module 8 - DSDIP Significant Residual Impact Guideline - EOP - EPBC Act permit - NRM Self Assessable Guidelines for land management and exemption checklist	Site design, context plan or RoL application.	Areas of remnant vegetation containing 'endangered' regional ecosystems, and vegetation within the Flagstone Creek corridor and riparian zone, are retained or increased at the completion of the project.
Other vegetation	Development protects and minimises impacts on native vegetation within and supporting significant biodiversity values.	- Avoid (to the greatest extent possible) the clearing of remnant, regrowth and other native vegetation, including non-juvenile Koala habitat trees within the land designated Flagstone Creek corridor (riparian zone) and mapped wider extents of the Flagstone Creek corridor (Appendix 1) - Unavoidable clearing can only occur for essential community infrastructure within the designated Flagstone Creek corridor and areas of vegetation containing 'endangered' regional ecosystem, where	Where suitable, parts of the following documents and standards will assist in measuring the overall outcome: - Guideline 14 - Guideline 17 - DSDIP Significant Residual Impact Guideline - NRM Self Assessable Guidelines for land management and exemption checklist - Easement rights - Site Bushfire Management Plan Plan 2 (Appendix 1)	Site design and continuing through stages of approved construction	An increase in habitat quality of vegetation to be included in the site's significant biodiversity values at completion of the project. All works completed in accordance with an approved Vegetation Management Plan and

Element	Overall outcomes	Strategies / actions	Design standards / resources	Timing (indicative)	Achievement criteria
		this infrastructure cannot be reasonably located elsewhere. - Where unavoidable clearing for essential community infrastructure is required within the designated the Flagstone Creek corridor and areas of vegetation containing 'endangered' regional ecosystem, rehabilitate impacted areas in accordance with SEQ Restoration Guidelines and an approved Rehabilitation Management Plan. - Prepare management plans in accordance with the reporting and management section of this NESS to stage and manage the impacts of clearing as per an approved VMP and RMP. - Stage and minimise the clearing of trees for areas designated under the plan of development as schools, future park, drainage and buffer until preliminary concepts for these areas have been prepared and clearing extents identified. - Through site earthworks, maximise the retention of remnant vegetation, regrowth and healthy isolated native tree species within waterway corridors and future recreation / open space areas where not in conflict with the purpose and use of the open space or other required infrastructure within the development land.	- Draft Code of Practice for the Welfare of Wild Animals affected by Land Clearing - SEQ Ecological Restoration Framework Code - SEQ Ecological Restoration Framework Guide - SEQ Ecological Restoration Framework Manual - Rehabilitation Management Plan - Vegetation Management Plan		Rehabilitation Management Plan.
Koala	Minimise clearing of Non-Juvenile Koala Habitat Trees (NJKHTs) and provide obligations in accordance with IG17 to achieve a net gain in Koala habitat for the region. Minimise threats to existing local Koala populations by avoiding conflicts with roads and dogs.	- Avoid (to the greatest extent possible) the removal of NJKHT within the designated Flagstone Creek corridor and areas of vegetation containing 'endangered' regional ecosystem. - Where unavoidable clearing for essential community infrastructure is necessary within the designated Flagstone Creek corridor and confirmed areas of vegetation containing 'endangered' regional ecosystem, all works are managed in accordance with the reporting and management section of this NESS. - Minimise impacts of the clearing of NJKHT through the development land by staging and sequencing works. Clearing is to flush koalas to the retained Flagstone Creek corridor. - Stage and manage the impacts of clearing NJKHT in accordance with the reporting and management section of this NESS. - Incorporate dog off-leash facilities in recreation parkland and on lead control measures through the designated Flagstone Creek corridor (riparian zone). - Ensure site design provides for safe Koala linkage opportunities to surrounding off-site habitat by discouraging Koala movement into built up areas through a range of Koala sensitive design measures (fencing, signage, road and landscape design).	Where suitable, parts of the following documents and standards will assist in measuring the overall outcome: - EPBC Koala Referral Guidelines - Nature Conservation (Koala) Conservation Plan 2006 and Management Program 2006-2016 (koala plan) - EHP Koala Sensitive Design Guideline - Main Roads Fauna Sensitive Design Manual Vol.2 - Draft Code of Practice for the Welfare of Wild Animals affected by Land Clearing	Site design and continuing through stages of approved construction.	Increase in the density of NJKHT within the designated Flagstone Creek corridor and areas of vegetation containing 'endangered' regional ecosystem (measured at strategic intervals until project off maintenance). No temporary fragments or islands of NJKHT within clearing zones for the life of the project (subject to internal reporting).

Element	Overall outcomes	Strategies / actions	Design standards / resources	Timing (indicative)	Achievement criteria
EVNT species	Identify and avoid (to the greatest extent possible) any impacts on EVNT species.	- Provide obligations in accordance with Guideline 17 to achieve a net gain in Koala habitat for the region for any removed NJKHT from Medium Value – Suitable for Rehabilitation and all Bushland Habitat Mapping categories (or deliver any Approved Environmental Offsets conditioned by the Commonwealth Department of Environment under the EPBC Act). - Avoid clearing of EVNT flora species. - Ensure appropriate pre-clearance checks and fauna spotter reporting provides a contemporary and more detailed review of EVNT species or potential habitat within each stage of clearing. - Where suitable within and adjoining the designated Flagstone Creek corridor and areas of vegetation containing 'endangered' regional ecosystem, incorporate areas of <i>Melaleuca irbyana</i> and or other habitat reinstatement for EVNT species	Where suitable, parts of the following documents and standards will assist in measuring the overall outcome: - NCA Protected Plants Process - Fauna Spotter Pre-Clearance and Post Works Reporting - SEQ Ecological Restoration Framework Code - SEQ Ecological Restoration Framework Guide - SEQ Ecological Restoration Framework Manual	Site design and continuing through stages of approved construction.	Increase in quality of EVNT flora species within the designated Flagstone Creek corridor and areas of vegetation containing 'endangered' regional ecosystem. Increase in the availability of habitat and usage of the designated Flagstone Creek corridor and areas of vegetation containing 'endangered' regional ecosystem by fauna, as per a Rehabilitation Management Plan.
Native fauna (non EVNT species)	Minimise impacts on native fauna (not scheduled as threatened)	- Avoid negative impacts on native fauna species in the designated Flagstone Creek corridor and areas of vegetation containing 'endangered' regional ecosystem. - Consolidate habitat for all native fauna into non-development portions of the site (i.e. designated Flagstone Creek corridor and areas of vegetation containing 'endangered' regional ecosystem). - Engage a registered fauna spotter for a pre-clearance report and advice on clearing and sequencing methods within the development land. - Stage and manage the impacts of clearing in accordance with the reporting and management section of this NESS and an approved VMP. - Minimise impacts of clearing development land through staging, sequencing and management plans prepared in accordance with the reporting and management section of this NESS. - Where specific habitat features, such as mature habitat trees containing hollows, need to be removed, complete an audit of lost habitat features. Use the audit to determine a strategy to harvest habitat features and/or design and implement a species-specific nest box offset strategy as part of the FMP.	Where suitable, parts of the following documents and standards will assist in measuring the overall outcome: - Fauna Management Plan prepared in accordance with the Draft Code of Practice for the Welfare of Wild Animals affected by Land Clearing - SEQ Ecological Restoration Framework Code - SEQ Ecological Restoration Framework Guide - SEQ Ecological Restoration Framework Manual	Site design and continuing through stages of approved construction.	Fauna Spotter / Catcher pre, during and post clearing reports completed for each stage of clearing works.

Element	Overall outcomes	Strategies / actions	Design standards / resources	Timing (indicative)	Achievement criteria
Waterways	Retain, protect and buffer site watercourses forming part of the project's significant biodiversity values.	- Avoid (to the greatest extent possible) any clearing within mapped watercourses, or other natural hydrological features within the designated Flagstone Creek corridor (riparian zone). - Avoid (to the greatest extent possible) any clearing within the identified waterway forming part of the site's significant biodiversity values within or adjoining the development land (i.e. Flagstone Creek corridor, Plan 5). - Minimise impacts on the identified waterway forming part of the site's significant biodiversity values through appropriately designed and located buffers (i.e. Flagstone Creek corridor (riparian zone), Plan 5). - Explore infrastructure designed to incorporate existing vegetation with stormwater solutions through modified drainage features throughout the development portions and biodiversity corridor. - Where unavoidable clearing (e.g. access where no other alternative exists, essential community infrastructure and/or approved waterway corridor restoration measures) is required within: - mapped watercourses or other natural hydrological features within the designated Flagstone Creek corridor (riparian zone); or - identified waterways forming part of the site's significant biodiversity values within or adjoining the development land; - minimise the clearing footprint, mitigate impacts and compensate through ecological restoration measures. - Where unavoidable clearing is necessary within: - mapped watercourses or other natural hydrological features within the designated Flagstone Creek corridor (riparian zone); or - identified waterways forming part of the site's significant biodiversity values within or adjoining the development land; - ensure that all works are managed in accordance with the reporting and management section of this NESS.	Where suitable, parts of the following documents and standards will assist in measuring the overall outcome: - State Code 16 - DAF Mapping - DAF WWBW Self Assessable Codes - SEQ Ecological Restoration Framework Code - SEQ Ecological Restoration Framework Guide - SEQ Ecological Restoration Framework Manual - CPTED Guidelines for Queensland	Site design and continuing through stages of approved construction. Within each specific management plan (e.g. Vegetation Management Plan, Fauna Management Plan, Weed Management Plan etc).	Watercourses identified as significant biodiversity values are retained through site design. Bio-condition of site watercourses retained as part of significant biodiversity values are increased at completion of the project.
Land degradation	Avoid and manage land degradation impacts caused through works within areas of dispersive and sodic soils.	- Avoid (to the greatest extent possible) any clearing within identified waterways forming part of the site's significant biodiversity values within or adjoining the development land (i.e. Flagstone Creek corridor, Plan 5) - Avoid (to the greatest extent possible) clearing on steep terrain greater than 20%. Where clearing on steep terrain is unavoidable, employ machinery and clearing techniques that minimise disturbance to soils. - Minimise clearing of any natural drainage features within the development land where included as part of open space, drainage channels, or future schools.	Where suitable, parts of the following documents and standards will assist in measuring the overall outcome: - State Code 16 - DAF WWBW Self Assessable Codes - SEQ Ecological Restoration Framework Code - SEQ Ecological Restoration Framework Guide - SEQ Ecological Restoration Framework Manual - CPTED Guidelines for Queensland - Endorsed / approved site strategies and infrastructure master plans for:	Site design and continuing through stages of approved construction.	No indirect impacts from soil deposition or erosion in the downstream significant biodiversity values areas.

Element	Overall outcomes	Strategies / actions	Design standards / resources	Timing (indicative)	Achievement criteria
		▪ Mitigate the impacts of clearing of any drainage features, overland flow paths or other natural hydrological features through inclusion of a detailed erosion and sediment control plan for each stage of self-certified operational works submissions. ▪ Dispersive soil mitigation measures are to be implemented during detailed design if required (such as vegetation or protection of batters, minimising velocity of stormwater flows, flattening of grades, stormwater detention, stormwater discharge into erosion resistant areas, soil re-compaction, soil stabilisers (chemical polymers) and use of sandstone/barriers) as per the endorsed waterway corridor restoration plan.	○ Earthworks ○ Stormwater ○ Waterway Restoration		
Rehabilitation & restoration	Expand and improve the quality of significant biodiversity values and other retained natural features.	▪ Revegetate and restore to remnant status all cleared, degraded and modified areas within the designated Flagstone Creek corridor and areas of vegetation containing 'endangered' regional ecosystem as per the Rehabilitation Management Plan. ▪ Undertake rehabilitation, including planting of endemic species and weed management, within the bed and banks of retained or modified watercourses and drainage features. This rehabilitation may be utilised as part of the total site stormwater management strategies, particularly with regard to stormwater quality and waterway corridor restoration. ▪ Reuse cleared native vegetation (e.g. as site mulch in future revegetation works in and adjoining the designated Flagstone Creek corridor and areas of vegetation containing 'endangered' regional ecosystem. ▪ Wherever practical, research and incorporate EVNT species (flora) and Threatened Ecological Communities into site revegetation.	Where suitable, parts of the following documents and standards will assist in measuring the overall outcome: ▪ SEQ Ecological Restoration Framework Code ▪ SEQ Ecological Restoration Framework Guide ▪ SEQ Ecological Restoration Framework Manual ▪ Endorsed / approved site strategies and infrastructure master plans for: ○ Open space ○ Stormwater	Site design and continuing through stages of approved construction.	Increased quality in the condition of retained areas when measured against pre-commencement benchmarks.
Weed and pest species	Decrease in the volume and diversity of site weed and pest species.	▪ Identify and map major infestations of environmental and declared weeds that will be targeted for removal through the designated Flagstone Creek corridor (riparian zone), areas of vegetation containing 'endangered' regional ecosystem, and other vegetated areas. ▪ Prepare detailed weed management and rehabilitation plans for the designated Flagstone Creek corridor (riparian zone) and areas of vegetation containing 'endangered' regional ecosystem, including re-vegetation using existing native species and pre-clear regional ecosystem communities, to strengthen the riparian vegetation cover. ▪ Prepare detailed weed management and rehabilitation plans for all portions of open space, including waterways and drainage features, relative to the stage in which they are proposed to be created.	Where suitable, parts of the following documents and standards will assist in measuring the overall outcome: ▪ Guideline 14 ▪ BA declared weeds and pests ▪ SEQ Ecological Restoration Framework Code ▪ SEQ Ecological Restoration Framework Guide ▪ SEQ Ecological Restoration Framework Manual	Pre-Construction Certification and / or Self Certification. Reporting as per purpose specific management or rehabilitation plan.	Decrease in the extent and diversity of site weed species on-site (measured annually for the life of the project).

Element	Overall outcomes	Strategies / actions	Design standards / resources	Timing (indicative)	Achievement criteria
		- Manage weeds and pests in accordance with the requirements of the <i>Biosecurity Act 2014</i>. - Explore methods to minimise impacts of domestic animals on environmental features surrounding the community, such as implementing educational and control measures for areas of the project adjoining or with the potential to influence the designated Flagstone Creek corridor (riparian zone) and areas of vegetation containing 'endangered' regional ecosystem.			
Monitoring, management plans & reporting	Ensure monitoring, management and reporting to collect adequate information to contribute towards the avoid, minimise, restore and offset principles of this NESS	- Prepare Vegetation Management Plans (VMPs) for each phase of clearing works incorporating the requirements of AS 4970-2009. - VMPs are to be approved by: - self-certification where prepared in accordance with AS 4970-2009 and external to significant biodiversity values areas; or - compliance assessment for unavoidable clearing within significant biodiversity values areas. - Monitoring and reporting to occur as per requirements of each VMP (e.g. photo monitoring, tree health, assessment post works). - Prepare Fauna Management Plans (FMPs) for each stage of development involving vegetation clearing works. FMPs are to mandate the use of EHP registered fauna spotters. - FMPs are to be approved by self-certification where prepared in accordance with the Draft Code of Practice for the Welfare of Wild Animals affected by Land-Clearing. - Monitoring and reporting to occur as per the requirement of each specific FMP, incorporating the reporting requirements of the engaged fauna spotter. - Prepare and implement Weed Management and Rehabilitation Plans for retained vegetation areas, drainage tributaries and other existing or reinstated vegetation areas. - Monitoring and reporting to occur as per the requirements of each specific Weed Management and Rehabilitation Plan (e.g. photo monitoring, quadrant and transect surveys etc.) showing reductions in site weed cover and expanded vegetation regeneration area. - Create a data repository of all environmental surveys, reports, management plans and monitoring data to inform future government and non-government decision making in Greater Flagstone and broader areas.	Where suitable, parts of the following documents and standards will assist in measuring the overall outcome: - Guideline 14 - Regulated Vegetation Management Mapping and Pre-Clear Mapping - Management plan specific monitoring and reporting requirements - Draft Code of Practice for the Welfare of Wild Animals affected by Land Clearing - Australian Standard (AS) 4970-2009 Protection of trees on development sites. - DSDIP Significant Residual Impact Guideline - EOP - SEQ Ecological Restoration Framework Code - SEQ Ecological Restoration Framework Guide - SEQ Ecological Restoration Framework Manual	All stages – reported annually (until project off maintenance).	Annual evidence monitoring, management and internal reporting measures have used findings to contribute to the adaptive management of all other NESS site procedures.

5. Natural environmental features

At the whole of site scale, core natural environment features include:

- Remnant vegetation containing 'endangered' regional ecosystem.
- Low order remnant vegetation.
- Flagstone Creek corridor.
- Other drainage lines and watercourses.
- Watercourse and drainage line buffer areas.
- Areas of juvenile (non-remnant) native vegetation.

Each of these core features are detailed on **Plan 5 (Appendix 1)** and briefly described below:

a) Remnant vegetation containing 'endangered' regional ecosystem

The application area contains 'endangered' regional ecosystem on the northern and southern banks of Flagstone Creek. Refer to **Plan 2 (Appendix 1)** for the extent of 'endangered' remnant vegetation on-site.

The 'endangered' remnant vegetation is to be protected, enhanced and integrated into the Flagstone Creek corridor.

b) Low order remnant vegetation

The majority of the site, excluding the 'endangered' vegetation within the Flagstone Creek corridor (3.55 ha) and category X (non-remnant) (9.8 ha) in the northern aspect of the application area, contains 'least concern' remnant vegetation. The Flagstone Creek vegetation is mapped as containing 2.73 ha of 'least concern' RE12.3.7. This vegetation is to be protected, enhanced and integrated into the Flagstone Creek corridor. The balance of the site contains the dominant vegetation community, being 'least concern' RE12.9-10.2 (24.28 ha). This vegetation community predominantly occurs within the development zone. While not being protected specifically by Guideline 14 and Guideline 17, these vegetated areas escalate in importance when combined with other constraints (e.g. on a confirmed waterway).

c) Flagstone Creek corridor

Flagstone Creek is a confirmed waterway which recorded consistent features and values to be defined as a waterway under the *Fisheries Act 1994*. These areas displayed more evidence of conveying run-off and areas of greater diversity through mesic variants to the broader habitats in which they are contained.

The Flagstone Creek corridor (riparian zone) has been applied as per the outcomes of the Significant Biodiversity Assessment, being a 50m riparian zone from the centreline of the waterway.

d) Watercourse and drainage line buffer areas

As stated in c), the Flagstone Creek corridor (riparian zone) includes a 50m buffer either side, from the centreline of the waterway as per the outcomes of the Significant Biodiversity Assessment.

e) Areas of juvenile (non-remnant) native vegetation

The northern aspect of the application area contains category X (non-remnant) vegetation, which is representative of regrowth native vegetation. The species composition of this area is consistent with the pre-clear mapping, being 'least concern' RE12.9-10.2.

6. Ongoing monitoring and reporting

Ongoing monitoring of achievement of the NESS will occur in accordance with specific management plans (e.g. as specified in VMPs, FMPs, RMPs etc.). The Developer and environmental co-ordinator are to complete the monitoring and reporting in accordance with each approved management plan. Further specific methods for monitoring and reporting will be developed where required in conjunction with context plans, plans of development and compliance submissions.

7. Koala habitat values mapping

Koala habitat values mapping can be amended using the following methods, which are generally consistent with the *Planning Regulation 2017*.

7.1. Determination of koala habitat type for certain land

As part of, or prior to, the lodgement of a development application, an applicant may request the assessment manager to make a determination that land, which is part of that development application, is of a different Koala habitat type than the Koala habitat type shown for the land on the Map of Assessable Development Area Koala Habitat Values.

An applicant who makes a request must provide sufficient information, and (if requested) as part of the response to the information request, for the assessment manager to make the determination. Sufficient information includes, but is not limited to, a report by a suitably-qualified and experienced professional in respect of the habitat located on, and in connection with, the land for which the determination is requested.

An assessment manager who receives a request may determine, as part of its decision, that any part of the land that is the subject of the request is:

- a. of a Koala habitat type different to that shown on a Map of Assessable Development Area Koala Habitat Values; or
- b. an area where Koalas are generally not present.

The assessment manager may only make the determination where it is reasonably satisfied that the Koala habitat type associated with the relevant land is identified on the Map of Assessable Development Area Koala Habitat Values incorrectly. A determination of the Koala habitat type, which applies to the land the subject of the determination for the purpose of applying any rules, guidelines, offsets or other considerations relating to the Koala species. Further guidance on the technical information and considerations to be incorporated into an application for a redetermination of the Koala habitat values maps can be drawn from Schedule 11 of the *Planning Regulation 2017*.

8. Definitions / references / acronyms

Term / Acronym	Definition	Date	Author / Organisation
Application Area	means the land parcel identified in Plan 1 (Appendix 1)		
AS 4970-2009	means <i>Australian Standard AS4970-2009 Protection of trees on development sites (incorporating Amendment No. 1)</i>	Mar 2010	Standards Australia
AS	means Australian Standards		
ASRIS	means Australian Soil Resource Information System		
BA	means <i>Biosecurity Act 2014</i>	3 Jul 2017	State of Queensland
Biosecurity Act 2014	means <i>Biosecurity Act 2014</i>	3 Jul 2017	State of Queensland
Category B Vegetation	means as defined by the <i>Vegetation Management Act 1999</i> , section 20A.		
Category X Vegetation	means as defined by the <i>Vegetation Management Act 1999</i> , section 20A.		
Areas of Remnant Vegetation Containing Endangered Regional Ecosystems	means as defined by the <i>Vegetation Management Act 1999</i> , section 5 (definitions)		
Confirmed Waterway Areas	means Confirmed Waterway Areas as shown on Plan 5 (Appendix 1)		
Context Plan	means a context plan as contemplated under Section 3.2.8 of the PDA Development Scheme		
CPTED	means Crime Prevention through Environmental Design		
CPTED Guidelines for Queensland	means Crime Prevention through Environmental Design- Guidelines for Queensland - Part B: Implementation Guide	Oct 2007	State of Queensland
DAF	means Department of Agriculture and Fisheries (Qld)		

Term / Acronym	Definition	Date	Author / Organisation
DAF Mapping	Fisheries Act 1994 Queensland waterways for waterway barrier works dataset means	15 July 2016	State of Queensland
DAF WWBW Self Assessable Codes	Self- assessable codes for waterway barrier works by DAF including: WWBW01-P1: Construction of minor dams and weirs, WWBW01-P2: Replacement of existing floodgates, WWBW01-P3: Construction and maintenance of culverts, WWBW01-P4: Construction and maintenance of bed level crossings, WWBW02: Temporary waterway barrier works, WWBW03: Regularly constructed temporary waterway barrier works		State of Queensland (Department of Agriculture and Fisheries)
Defining Bank	as defined in State Development Assessment Provisions Module 8: Native Vegetation Clearing (version 2.4) as meaning: the bank which confines seasonal flows by may be inundated by flooding from time to time. This can be either: 1. The bank of terrace that confines the water before the point of flooding, or 2. Where there is no bank the seasonal high water line which represents the point of flooding.” The part of the Application Area occupied by land uses other than designated riparian zone and ‘endangered’ regional ecosystem.	16 Nov 2018	State of Queensland
Development Land	means		
DoEE	means		
Draft Code of Practice for the Welfare of Wild Animals affected by Land-Clearing	means (Draft)	2009	Jon Hanger & Ben Nottidge - Australian Wildlife Hospital

Term / Acronym	Definition	Date	Author / Organisation
Drainage feature	As defined in State Development Assessment Provisions Module 8: Native Vegetation Clearing (version 1.7) as meaning: "is a natural landscape feature, including a gully, drain, drainage depression or other erosion feature that – 7 Is formed by the concentration of, or operates to confine or concentrate, overland flow during water and immediately after rainfall events; and 8 Flows for only a short duration after a rainfall event, regardless of the frequency of flow events; and 9 Commonly does not have enough continuing flow to create a riverine environment, and 10 Is shown on the vegetation management watercourse and drainage feature map 10.1 At a scale of 1:25000 on the vegetation management watercourse and drainage feature map for the local government areas of Brisbane, Moreton Bay, Gold Coast, Sunshine Coast, Logan and Redlands, excluding applications to clear vegetation for extractive industries."		
DSDMIP	means	Department of State Development, Manufacturing, Infrastructure and Planning (Qld)	
DSDMIP Significant Residual Impact Guideline	means	Significant Residual Impact Guideline - For matters of state environmental significance and prescribed activities assessable under the Sustainable Planning Act 2009 - Queensland Environmental Offsets Policy	State of Queensland (Department of State Development, Infrastructure and Planning) Dec 2014
DSITIA Terrestrial Vertebrate Fauna Survey Guidelines	means	Terrestrial Vertebrate Fauna Survey Guidelines for Queensland (v 2.0)	State of Queensland (Department of Science, Information Technology, Innovation and the Arts) Nov 2014

Term / Acronym	Definition	Date	Author / Organisation
EDQ	means the Minister for Economic Development Queensland established under the <i>Economic Development Act 2012</i> , which supersedes the <i>Urban Land Development Authority and repeals the Urban Land Development Authority Act 2007</i> (Qld)		
DES	means Department of Environment and Science (Qld)		
EHP Koala Sensitive Design Guideline	means Koala-sensitive Design Guideline- A guide to koala-sensitive design measures for planning and development activities	Nov 2012	State of Queensland (Department of Environment and Heritage Protection)
EHP NCA Protected Plants Mapping	means <i>Nature Conservation Act 1992</i> protected plants flora survey trigger map spatial layer (QSpatial)		State of Queensland (Department of Environment and Heritage Protection)
EHP Wildlife Online Database	means Queensland Government's WildNet data species profile search (version 1.0) database		State of Queensland (Department of Environment and Heritage Protection)
Endangered Vegetation	means as mapped by Regulated Vegetation Management Mapping under the <i>Vegetation Management Act 1999</i> or by a certified Property Map of Assessable Vegetation.		
EOA	means <i>Environmental Offsets Act 2014</i> (Qld)	3 July 2017	State of Queensland
Environmental Offsets Act 2014	means <i>Environmental Offsets Act 2014</i> (Qld)	3 July 2017	State of Queensland
Environmental Offsets Policy 2014	means <i>Queensland Environmental Offsets Policy (Version 1.1)</i>	July 2017	State of Queensland
EOP	means <i>Queensland Environmental Offsets Policy (Version 1.1)</i>	July 2017	State of Queensland

Term / Acronym		Definition	Date	Author / Organisation
EPBC	means	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>	01 July 2015	Commonwealth of Australia
EPBC Act	means	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>	01 July 2015	Commonwealth of Australia
EPBC Koala Referral Guidelines	means	EPBC Act referral guidelines for the vulnerable koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)	2014	Commonwealth of Australia
EPBC PMST Database	means	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i> Protected Matters Search Tool database interactive mapping	2015	Commonwealth of Australia
EPBC Significant Impact Guidelines	means	Matters of National Environmental Significance: Significant Impact Guidelines 1.1 <i>Environment Protection and Biodiversity Conservation Act 1999</i>	2013	Commonwealth of Australia
ESCP	means	Erosion and Sediment Control Plan		
Essential Habitat	means	as defined in the <i>Vegetation Management Act 1999</i> , section 20AC.		
Essential Management	means	as defined in the <i>Sustainable Planning Regulation 2000</i> , schedule 26.		
EVNT Species	means	Endangered, Vulnerable, Near Threatened and presumed Extinct species listed by name in schedules 1-5 of the <i>Nature Conservation Wildlife Regulation 2006</i> and least concern wildlife, not listed by name but identified as indigenous to Australia listed in Schedule 6.		
FMP	means	Fauna Management Plan		
Flagstone Creek Corridor	Means	The Extent of Biodiversity Corridor comprising the Flagstone Creek corridor (including riparian zone)		
GFPDA	means	Greater Flagstone Priority Development Area (formerly Greater Flagstone UDA)		
Guideline 14	means	PDA guideline no. 14 - Environmental values and sustainable resource use	May 2015	State of Queensland

Term / Acronym	Definition	Date	Author / Organisation
Guideline 17	PDA guideline no. 17 - Remnant vegetation and koala habitat obligations in Greater Flagstone and Yarrabilba PDAs	May 2015	State of Queensland (Department of State Development, Infrastructure and Planning)
ICOP	means Infrastructure Charging Offset Plan - Greater Flagstone Priority Development Area	Jul 2013	State of Queensland
Koala Habitat Areas	as defined in Guideline 17, an area mapped on State Planning Policy 2/10: Koala Conservation in South East Queensland, SEQ Koala Protection Area Koala Habitat Values maps as: - bushland habitat - having high and medium value suitable for rehabilitation habitat types.		
Koala Habitat Values Mapping	means the plan of Koala Habitat Areas enclosed at Plan 3 (Appendix 1) , or as amended in accordance with Section 7 of the NESS.		
Koala Guideline	means Schedule 11 – Planning Regulations 2017	Jul 2017	State of Queensland (Department of Environment and Heritage Protection)
LCC	means Logan City Council		
Main Roads Fauna Sensitive Design Manual Vol.2	means Fauna Sensitive Road Design Manual - Volume 2: Preferred Practices (Chapter 6 - Measures to achieve fauna sensitive roads, and Chapter 7 - Target Species Design Considerations)	Jun 2010	State of Queensland (Department of Transport and Main Roads)
MNES	means Matters of National Environmental Significance		
MSES	means Matters of State Environmental Significance		
MLES	means Matters of Local Environmental Significance		

Term / Acronym	Definition	Date	Author / Organisation
Nature Conservation (Koala) Conservation Plan 2006 and Management Program 2006-2016 (koala plan)	means <i>Nature Conservation (Koala) Conservation Plan 2006</i>	27 Sep 2013	State of Queensland (Department of Environment and Heritage Protection)
NCA	means <i>Nature Conservation Act 1992</i>	3 July 2017	State of Queensland (Department of Natural Resources and Mines)
NCA Protected Plants Exemption Process	means where clearing is to be undertaken within a High Risk Area, as mapped by EHP Protected Plants Flora Survey Trigger Map, a flora survey will be undertaken in accordance with the Protected Plants Flora Survey Trigger Guidelines - Nature Conservation Act 1992 and where applicable, an Exempt Clearing Notification Form will be issued to EHP		State of Queensland (Department of Natural Resources and Mines)
NCA Protected Plants Flora Survey Guidelines	means <i>Flora Survey Guidelines - Protected Plants - Nature Conservation Act 1992</i>	2014	State of Queensland (Department of Natural Resources and Mines)
NCWR	means <i>Nature Conservation (Wildlife Management) Regulation 2006</i>	1 July 2017	State of Queensland (Department of Natural Resources and Mines)
NESS	means <i>Natural Environment Site Strategy</i>		
NJKHT	means <i>Non-Juvenile Koala Habitat Trees</i>		
NRM	means <i>Department of Natural Resources and Mines (Qld)</i>		
NRM Covenant Control measures and Guidelines	means as defined within the NRM Land Title Practice Manual (Qld), specifically Part 31 - Covenants, and NRM policy 'Covenants providing for non separate transfers PUX/952/066 version 4.05'	Apr 2009	State of Queensland (Department of Natural Resources and Mines)

Term / Acronym	Definition	Date	Author / Organisation
Regulated Vegetation Management Mapping	means <i>Vegetation Management Act 1999</i> Regulated Vegetation Management Map - version 10.1	2018	
Self Assessable Guidelines for land management and exemption checklist	NRM self assessable clearing codes, specifically for Managing Encroachment, Managing Fodder Harvesting, Necessary Environmental Clearing, Property Infrastructure and Weed Control	2018	State of Queensland
OSS	means Overarching Site Strategy		
PDA	means Priority Development Area (formerly UDA)		
PDA Development Scheme	means the <i>Greater Flagstone Urban Development Area Development Scheme</i>	Oct 2011	State of Queensland
Planning Act	means <i>Planning Act 2016</i>	9 May 2018	Queensland Government
Planning Regulation	means <i>Planning Regulation 2017</i>	9 May 2018	Queensland Government
PMAV	means Property Map of Assessable Vegetation		
Pre-clear Mapping	means Draft pre-clearing regional ecosystems mapping data spatial layer (QSpatial)	8 May 2015	State of Queensland
Prescribed Matter	means as defined by the <i>Environmental Offsets Act 2014</i>		
Property Map of Assessable Vegetation (PMAV)	means as defined by the <i>Vegetation Management Act 1999</i>		
RE	means Regional Ecosystems		
Regional Ecosystems	means as defined by the <i>Vegetation Management Act 1999</i> .		
Riparian Zone	means land designated as riparian zone within the Flagstone Creek corridor		
SARA	means State Assessment Referral Agency (Qld)		

Term / Acronym		Definition	Date	Author / Organisation
SARA Mapping	means	QSpatial layers applicable under SARA DA mapping tool		
SAT	means	Spot Assessment Technique Survey		
SDAP	means	State Development Assessment Provisions		
SEQ Ecological Restoration Framework Code	means	South East Queensland Ecological Restoration Framework: Code of Practice	2012	Chenoweth EPLA and Bushland Restoration Services. Prepared on behalf of SEQ Catchments and South East Queensland Local Governments, Brisbane.
SEQ Ecological Restoration Framework Guide	means	South East Queensland Ecological Restoration Framework: Guideline	2012	Chenoweth EPLA and Bushland Restoration Services. Prepared on behalf of SEQ Catchments and South East Queensland Local Governments, Brisbane.
SEQ Ecological Restoration Framework Manual	means	South East Queensland Ecological Restoration Framework: Manual	2012	Chenoweth EPLA and Bushland Restoration Services. Prepared on behalf of SEQ Catchments and South East Queensland Local Governments, Brisbane.
State Code 16	means	State Code 16 of the State Development Assessment Provisions (version 2.4)	16 Nov 2018	State of Queensland

Term / Acronym	Definition	Date	Author / Organisation
Significant Biodiversity Values	means Significant Biodiversity Values are as mapped and annotated on Plan 5 (Appendix 1)		
Significant Residual Impact	means As defined by the Environmental Offsets Act 2014, as meaning: “an adverse impact, whether direct or indirect, of a prescribed activity on all or part of a prescribed environmental matter that – 1. Remains, or will or is likely to remain, (whether temporarily or permanently) despite onsite mitigation measures of the prescribed activity; and 2. Is, or will or is likely to be, significant.		
SPP	means State Planning Policy		
SPP Biodiversity Values Mapping	means State Planning Policy 2014 Matters of State Environmental Significance spatial layer series, specifically for MSES Biodiversity	2018	State of Queensland
SPP 03/17	means State Planning Policy July 2017	July 2017	State of Queensland (Department of State Development, Infrastructure and Planning)
SRI	means Significant Residual Impact		
TEC	means Threatened Ecological Community		
TMR	means Department of Transport and Main Roads (Qld)		
UDA	means Urban Development Area (now known as PDA)		
ULDA	means Urban Land Development Authority (now known as EDQ)		

Term / Acronym		Definition	Date	Author / Organisation
VMA	means	<i>Vegetation Management Act 1999</i>	3 July 2017	Queensland Government
VMP	means	Vegetation Management Plan		
Watercourse	means	is a watercourse as defined under the <i>Water Act 2000</i>, as meaning: “a river, creek or other stream, including a stream in the form of an anabrach or tributary, in which water flows permanently or intermittently, regardless of the frequency of flow events – a. In a natural channel, whether artificially modified or not, or b. In an artificial channel that has changed the course of the stream”.		
Waterway	means	as defined by DAF Mapping for WWBW and ground-truthed by field survey		
Waterway Barrier Works (WWBW)	means	as defined in the <i>Fisheries Act 1994</i>		
WWBW	means	Waterway Barrier Works		

9. Legislation and guidelines reference within this strategy

The following legislation (i.e. Acts, Guidelines and Policies) are referenced within this strategy and remain in effect for the purpose of this NESS.

Act / Policy /Guideline	Date of Publication	Author/Organisation
<i>Australian Standard AS4970-2009 Protection of trees on development sites (incorporating Amendment No. 1)</i>	Mar 2010	Standards Australia
<i>Biosecurity Act 2014</i>	Jul 2017	State of Queensland
<i>Biosecurity Regulation 2016</i>	Jul 2017	State of Queensland
<i>Acceptable Development Requirements: Requirements for all works (Waterway Barrier Works)</i>	Oct 2018	State of Queensland (Department of Agriculture and Fisheries)
<i>Acceptable Development Requirements: Requirements for new works (Waterway Barrier Works)</i>	Oct 2018	State of Queensland (Department of Agriculture and Fisheries)
<i>Acceptable Development Requirements: Requirements for maintenance works (Waterway Barrier Works)</i>	Oct 2018	State of Queensland (Department of Agriculture and Fisheries)
<i>Crime Prevention through Environmental Design- Guidelines for Queensland - Part B: Implementation Guide</i>	Oct 2007	State of Queensland
<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>	Jul 2015	Commonwealth of Australia
<i>Environmental Offsets Act 2014</i>	Jul 2017	State of Queensland
<i>EPBC Act Administrative Guidelines on Significance – Supplement for the Grey-headed Flying-fox</i>	2003	Commonwealth of Australia
<i>EPBC Act referral guidelines for the vulnerable koala (combined populations of Queensland, New South Wales and the Australian Capital Territory)</i>	2014	Commonwealth of Australia

Act / Policy /Guideline	Date of Publication	Author/Organisation
<i>Fauna Sensitive Road Design Manual - Volume 2: Preferred Practices</i>	Jun 2010	State of Queensland (Department of Transport and Main Roads)
<i>Fisheries Act 1994</i>	Jul 2017	State of Queensland
<i>Flora Survey Guidelines - Protected Plants - Nature Conservation Act 1992</i>	2014	State of Queensland (Department of Environment and Heritage Protection)
<i>Greater Flagstone Urban Development Area Development Scheme</i>	Oct 2011	State of Queensland
<i>Guideline- South East Queensland Koala Conservation - State Planning Regulatory Provisions</i>	Jul 2014	State of Queensland (Department of Environment and Heritage Protection)
<i>Infrastructure Charging Offset Plan - Greater Flagstone Priority Development Area</i>	Jul 2013	State of Queensland
<i>Koala-sensitive Design Guideline- A guide to koala-sensitive design measures for planning and development activities</i>	Nov 2012	State of Queensland (Department of Environment and Heritage Protection)
<i>List of Vegetation Clearing Exemptions</i>	2018	State of Queensland (Department of Natural Resources and Mines)
<i>Matters of National Environmental Significance: Significant Impact Guidelines 1.1 Environment Protection and Biodiversity Conservation Act 1999</i>	2013	Commonwealth of Australia
<i>Nature Conservation (Koala) Conservation Plan 2006</i>	Sep 2013	State of Queensland (Department of Environment and Heritage Protection)
<i>Nature Conservation (Wildlife Management) Regulation 1994</i>	Jul 2017	State of Queensland
<i>Nature Conservation Act 1992</i>	Jul 2015	Queensland Government
<i>PDA guideline no. 14 - Environmental values and sustainable resource use</i>	May 2015	State of Queensland
<i>PDA guideline no. 17 - Remnant vegetation and koala habitat obligations in Greater Flagstone and Yarrabilba PDAs</i>	Aug 2014	State of Queensland, Department of State Development, Infrastructure and Planning
<i>Planning Act 2016</i>	May 2018	State of Queensland
<i>Planning Regulation 2017</i>	May 2018	State of Queensland

Act / Policy /Guideline	Date of Publication	Author/Organisation
<i>Queensland Code of Practice for the welfare of wild animals affected by land-clearing and other habitat impacts and wildlife spotter / catchers (Draft)</i>	2009	Jon Hanger & Ben Nottidge - Australian Wildlife Hospital
<i>Queensland Environmental Offsets Policy (Version 1.4)</i>	July 2017	State of Queensland
<i>Significant Residual Impact Guideline - For matters of state environmental significance and prescribed activities assessable under the Sustainable Planning Act 2009 - Queensland Environmental Offsets Policy</i>	Dec 2014	State of Queensland, Department of State Development, Infrastructure and Planning
<i>South East Queensland Ecological Restoration Framework: Code of Practice</i>	2012	Chenoweth EPA and Bushland Restoration Services. Prepared on behalf of SEQ Catchments and South East Queensland Local Governments, Brisbane.
<i>South East Queensland Ecological Restoration Framework: Guideline</i>	2012	Chenoweth EPA and Bushland Restoration Services. Prepared on behalf of SEQ Catchments and South East Queensland Local Governments, Brisbane.
<i>South East Queensland Ecological Restoration Framework: Manual</i>	2012	Chenoweth EPA and Bushland Restoration Services. Prepared on behalf of SEQ Catchments and South East Queensland Local Governments, Brisbane.
<i>State Planning Policy July 2017</i>	Jul 2017	State of Queensland (Department of State Development, Infrastructure and Planning)
<i>Terrestrial Vertebrate Fauna Survey Guidelines for Queensland (v 2.0)</i>	Nov 2014	The State of Queensland (Department of Science, Information Technology, Innovation and the Arts)
<i>Vegetation Management Act 1999</i>	Jul 2017	State of Queensland
<i>Water Act 2000</i>	Oct 2015	State of Queensland

10. Appendices

- Plan 1:** Site aerial
- Plan 2:** Regional ecosystem mapping
- Plan 3:** SEQ Koala Habitat values mapping
- Plan 4:** Fisheries – Waterways for waterway barrier works
- Plan 5:** Natural Environment Site Strategy – Site constraints plan

This plan was prepared as a desktop assessment tool. The information on this plan is not suitable for any other purpose. Property dimensions, areas, numbers of lots and contours and other physical features shown have been compiled from existing information and may not be field verified. The purpose of this plan is to provide information for development application approval and development proceeds, and may change when a full survey is undertaken in order to comply with development approval conditions. No reliance should be placed on the information on this plan for detailed design or for any financial dealings involving the land. Saunders Havill Group therefore disclaims any liability for any loss or damage whatsoever or howsoever incurred, arising from any part using or relying upon this plan for any purpose other than as a document for the purpose of application for a development application, and which may be subject to alteration beyond the control of the Saunders Havill Group. Unless a development approval states otherwise, this is not an approved plan.

Layer Sources
Qld State Cadastre and Mapping layers © State of Queensland
(Department of Natural Resources and Mines) 2018. Updated data available at
<http://qldspatialinformation.qld.gov.au/catalogue/>
Aerial Imagery © Neamap, 2018

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 Project Site Boundary

 Qld DCDB

Issue	Date	Description	Drawn	Checked
A	13/02/2019	Preliminary	TC	MS



2. VMA Regional Ecosystem Mapping



NOTES
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Layer Sources
Old State Cadastre and Mapping layers © State of Queensland
Department of Natural Resources and Mines 2018. Updated data available at <http://oldspatialinformation.qld.gov.au/catalogue/>
Aerial imagery © Neomaps, 2018

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Legend

- Project Referral Area
- Qld DCDB
- VM Watercourse and drainage features
- Wetland
- Essential habitat

VM regional ecosystem map

- Category A or B area containing endangered regional ecosystems
- Category A or B area containing of concern regional ecosystems
- Category A or B area that is a least concern regional ecosystem
- Category C area containing endangered regional ecosystems
- Category C area containing of concern regional ecosystems
- Category C area that is a least concern regional ecosystem

Issue	Date	Description	Drawn	Checked
A	13/02/2019	Preliminary	TC	MS



3. Qld Koala Habitat Values Mapping



NOTES
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Layer Sources
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Aerial imagery © Neomaps, 2018

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Legend

- Project Referral Area
- Qld DCDB
- Koala Habitat Values**
 - Bushland Habitat**
 - Medium Value Bushland
 - Low Value Bushland
 - Suitable for Rehabilitation**
 - Medium Value Rehabilitation
 - Low Value Rehabilitation
 - Other Areas of Value**
 - Low Value Other

Issue	Date	Description	Drawn	Checked
A	13/02/2019	Preliminary	TC	MS



4. Fisheries - Waterways for Waterway Barrier Works



NOTES
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Layer Sources
Old State Cadastre and Mapping layers © State of Queensland (Department of Natural Resources and Mines) 2018. Updated data available at <http://qldspatialinformation.qld.gov.au/catalogue/>
Aerial Imagery © NeoMap, 2018

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Legend

Project Referral Area

Qld DCDB

Waterways

Risk of Impact

1 - Low

2 - Moderate

3 - High

4 - Major

Issue	Date	Description	Drawn	Checked
A	13/02/2019	Preliminary	TC	MS



5. NESS Constraints



NOTES
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Layer Sources
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(Department of Natural Resources and Mines) 2018. Updated data available at <http://qldspatialinformation.qld.gov.au/catalogue/>
Aerial imagery © Neomaps, 2018

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Legend

- Project Site Boundary
- Qld DCDB
- NESS Constraints**
 - Endangered Remnant Vegetation
 - Low Order Remnant Vegetation
 - Juvenile Native Vegetation
 - Sandy Creek Corridor (Riparian zone)
 - Flagstone Creek

Issue	Date	Description	Drawn	Checked
A	13/02/2019	Preliminary	TC	MS

