CHAPTER 3

Regulatory Approvals and Planning

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3 Regulatory Approvals and Planning

This chapter describes the legislative and planning frameworks and regulatory approvals that apply to the Six Mile Creek Dam Safety Upgrade Project (the Project).

3.1 Background

The Project is located at Lake Macdonald, which is wholly within the Noosa Shire Council area. This chapter is based on desktop assessment and discussions with relevant government agencies regarding the current concept design and proposed construction methodology for the Project. Specifically, this chapter identifies:

- Relevant Commonwealth and State legislation
- Relevant State, regional and local planning instruments
- Land use and tenure in the Project area
- Regulatory approvals that are likely to be required for the Project.

The final detailed design for the Project is currently being progressed and is not expected to differ significantly from that described in the Initial Advice Statement (2017). However, the regulatory approvals identified in this IAR may be subject to change in response to changes in construction methodology.

The chapter is structured as follows:

- Section 3.2 provides an overview of relevant Commonwealth and State legislation and their relevance to the Project
- Section 3.3 discusses the relevant planning instruments and their relevance to the Project
- Section 3.4 provides and overview of the land use and tenure in the Project area
- Section 3.5 identifies the regulatory approvals required for the Project
- Section 3.6 describes the key regulatory approvals identified for the Project and describes where relevant supporting information required for approval applications is provided in the IAR.

3.2 Legislative Framework

3.2.1 Commonwealth Legislation

Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places, or matters of national environmental significance (MNES). The nine MNES categories protected under the EPBC Act are:

- World heritage properties
- National heritage places
- Wetlands of international importance (listed under the Ramsar Convention)
- Listed threatened species and ecological communities
- Migratory species protected under international agreements
- Commonwealth marine areas
- The Great Barrier Reef Marine Park
- Nuclear actions (including uranium mines)
- A water resource, in relation to coal seam gas development and large coal mining development.

The EPBC Act enables bilateral management of environment, heritage protection and biodiversity conservation between the Australian and State governments. The EPBC Act focuses Australian government interests on the protection of MNES, with the states and territories having responsibility for Matters of State Environmental Significance (MSES) and Matters of Local Environmental Significance (MLES).

The EPBC Act provides protection for threatened flora, fauna and ecological communities by:

- Identifying and listing of species and ecological communities as threatened
- Developing conservation advice and recovery plans for listed species and ecological communities
- Developing a register of critical habitat

- Recognising key threatening processes
- Where appropriate, reducing the impacts of these processes through threat abatement plans and non-statutory threat abatement advices, and by
- Requiring approval for certain actions or activities that will, or are likely to, have a significant impact on an MNES or other protected matter.

The Project was referred to the Minister for the Environment for consideration and assessment and confirmed as a controlled action under the Act on 6 December 2016 (EPBC number 2017/8078), due to the possible impact on listed threatened species (sections 18 and 18A of the EPBC Act). The Project will be assessed under the Bilateral Agreement with the State of Queensland.

3.2.2 State Legislation

State Development and Public Works Organisation Act 1971

The purpose of the *State Development and Public Works Organisation Act 1971* (SDPWO Act) is to facilitate timely, coordinated and environmentally responsible infrastructure planning and development to support Queensland's economic and social progress. The SDPWO Act gives the Coordinator-General significant powers to, among other things, declare a project to be a 'coordinated project' and coordinate an environmental impact statement (EIS) or impact assessment report (IAR) for a project.

A proponent may apply for a 'coordinated project' declaration, or, a declaration can be made by the Coordinator-General independently. To declare a 'coordinated project', the Coordinator-General needs to be satisfied that the project has at least one of the following features:

- Complex approval requirements
- Strategic significance to an area, including for the infrastructure, economic and social benefits, capital investment or employment opportunities it may provide
- Significant environmental effects
- Significant infrastructure requirements.

The declaration of a 'coordinated declaration' does not imply government approval of, support for, or commitment to the project in question. The declaration does not exempt the project proponent from the need to obtain necessary development approvals and comply with relevant planning and environment laws and planning instruments. The coordinated project process replaces the information and referral stages of a related assessment under both the *Planning Act 2016* and an environmental authority under the *Environmental Protection Act 1994*. The decision stage under both of these Acts commences when the Coordinator-General's evaluation report on the EIS or IAR is provided to the relevant assessment authority.

The Office of the Coordinator-General within the Department of State Development, Manufacturing, Infrastructure and Planning (DSDMIP) is responsible for administering the SDPWO Act.

Following an application by Seqwater, the Project was declared a coordinated project, for which an IAR is required, on 22 December 2017, pursuant to section 26 (1)(b) of the SDPWO Act.

Planning Act 2016

The purpose of the *Planning Act 2016* (Planning Act) is to establish an efficient, effective, transparent, integrated, coordinated, and accountable system of land use planning, development assessment and related matters that facilitate the achievement of ecological sustainability.

The Planning Act comprises three main elements; plan making, development assessment and dispute resolution. The Planning Act provides for the making of documents which guide all strategic planning and development throughout the state; the primary document being a local government planning scheme. A local government's planning scheme sets out what development can occur in an area and applications are made against the scheme.

The Planning Act also mandates the framework and process for development assessment and the basic requirements for an application. Under the Planning Act, development may be categorised as accepted development, assessable development (code and impact) and prohibited development. Development approval may be required for matters identified in the relevant planning scheme as well as matters of state significance.

The Department of State Development, Manufacturing, Infrastructure and Planning (DSDMIP) is responsible for administering the Planning Act.

Development applications, including material change of use and operational works, for the Project will be managed and assessed under the Planning Act.

Nature Conservation Act 1992

The purpose of the *Nature Conservation Act 1992* (NC Act) is the conservation of nature while allowing for the involvement of indigenous people in the management of protected areas in which they have an interest under Aboriginal tradition or Island custom. The NC Act provides the framework for the declaration and management of protected areas, and the protection of wildlife listed under the *Nature Conservation (Wildlife) Regulation 2006 (*NC Regulation). The NC Act, section 71 describes the classes of wildlife to which the Act applies as:

(a) protected wildlife, that is—
  I. extinct in the wild wildlife; and
  II. endangered wildlife; and
  III. vulnerable wildlife; and
  IV. near threatened wildlife; and
  V. least concern wildlife; and
(b) international wildlife; and
(c) prohibited wildlife.

The NC Regulation prescribes the status of particular species in accordance with the categories set out in the Act. It also discusses special least concern animals which are defined as:

a) The echidna (*Tachyglossus aculeatus*)
b) The platypus (*Ornithorhynchus anatinus*)
c) A least concern bird that is subject to any of the following agreements or conventions:

   the *Agreement Between the Government of Australia and the Government of Japan for the Protection of Migratory Birds and Birds in Danger of Extinction and their Environment' and signed at Tokyo on 6 February 1974*, the *Agreement Between the Government of Australia and the Government of the People's Republic of China for the Protection of Migratory Birds and their Environment' and signed at Canberra on 20 October 1986* or the *Convention on the Conservation of Migratory Species of Wild Animals' and signed at Bonn on 23 June 1979*.

It is an offence to 'take' protected wildlife without a license, permit or other authority (s.320), where take is defined in the NC Act. It is also an offence for a person, without a reasonable excuse, tamper with an animal breeding place that is being used by a protected animal to incubate or rear the animal's offspring (s.332, *Nature Conservation (Wildlife Management) Regulation 2006*).

The NC Act is administered by Department of Environment and Science (DES).

The Project will require a species management program for the disturbance of animal breeding places (high and low risk), and a clearing permit or exempt clearing notification for protected plants.

Vegetation Management Act 1999

The *Vegetation Management Act 1999* (VM Act) establishes the framework for the management of vegetation in Queensland except for state forests, national parks, forest reserves and certain other tenures defined under the *Forestry Act 1959* and the NC Act. The relevant provisions of the VM Act are implemented in conjunction with the Planning Act.

The VM Act incorporates the regional ecosystem (RE) classification scheme to regulate the clearing of native vegetation. REs are remnant vegetation communities in a bioregion that are consistently associated with a particular combination of geology, landform and soil. Regional ecosystem maps published by the Department of Natural Resources, Mines and Energy (DNRME) describe the extent and conservation status of remnant vegetation as REs.

Generally, clearing of vegetation to which the VM Act applies is 'assessable development' under the *Planning Act 2016* and will require a development approval in accordance with that Act, unless an exemption under the *Planning Regulation 2017* applies or the clearing meets relevant accepted development criteria.

The DNRME is responsible for administering the VM Act.

The Project will include the clearing of some regulated vegetation, however, under the *Planning Regulation 2017,* this can be classified as exempt clearing work (Schedule 21, Part 2 (2)(c)) as it is necessary for essential management on freehold land. Essential management in this instance is defined in the Regulation as necessary to maintain infrastructure unless the clearing is for sourcing construction material (Schedule 24). It should be noted that, while not currently planned, if regulated vegetation is to be cleared for the borrow pit then a clearing permit will be required.

Fisheries Act 1994

The *Fisheries Act 1994* provides for the management and protection of fisheries resources, including regulating development that might impact declared fish habitat areas and fish passage. It regulates the taking and possession of specific fish, removal of marine vegetation, the control of development in areas of fish habitat and listed noxious fish species.

The Fisheries Act establishes a risk hierarchy for waterway barrier works across Queensland, and guides the design and assessment process for the implementation of new waterway crossings. Development potentially impacting fish passage is either:

- Accepted development, where the design of infrastructure strictly conforms to the Department of Agriculture and Fisheries' (DAF's) Accepted Development Requirements for Operational Work that is Constructing or Raising a Waterway Barrier Works (2017), or
- Assessable development, where the proposed development requires assessment by DAF and the design of the development is required to demonstrate compliance with the State Development Assessment Provisions (SDAP State code 18).

The Queensland Waterways for Water Barrier Works spatial data assists in the determination of whether the site of proposed waterway barrier works requires assessment and approval under the Act. Waterways have been colour coded to show the risk of adverse impact from in-stream barriers on fish movement and whether a waterway barrier works can potentially proceed under the accepted development code or whether the works will require a development approval. Culverts, bridges, dams and other temporary or permanent waterway barrier works that cannot comply with accepted development requirements will result in waterway barrier works designs requiring approval from the DAF.

The DAF is responsible for administering the Fisheries Act and the relevant provisions of the Fisheries Act are implemented in conjunction with the Planning Act.

The Project will constitute a waterway barrier, and require assessment under the Fisheries Act and Planning Act.

Biosecurity Act 2014

The purpose of the Biosecurity Act is to provide a framework for minimising and managing biosecurity risks in Queensland, ensure the safety of agricultural inputs, align responses to biosecurity events to national and international obligations, and manage risks associated with:

- Emerging, endemic and exotic pests and diseases that impact the built, social and natural environment
- The transfer of diseases from animals to humans and vice versa
- Biological, chemical and physical contaminants in carriers.

The Biosecurity Act establishes a General Biosecurity Obligation (GBO) that requires all people in Queensland to be responsible for managing biosecurity risks that are under their control and that they know about, or should reasonably be expected to know about. It also defines prohibited and restricted biosecurity matter and places. Prohibited matter are listed in Schedule 1 of the Act, and restricted matter are listed in Schedule 2.

Under the GBO, individuals and organisations who undertake activities that present a biosecurity risk must:

- Take all reasonable and practical measures to prevent or minimise the risk
- Prevent or minimise the adverse effects on a biosecurity consideration
- Minimise the likelihood of causing a biosecurity event, and limit the consequences of a biosecurity event, and
- Not do or omit to do something if it is known, or ought reasonably be known, that this may exacerbate adverse effects.

The *Biosecurity Regulation 2016* prescribes the ways in which the GBO can be met to prevent or minimise a biosecurity risk, including measures to prevent or control the spread of biosecurity matter and maximum acceptable levels of contaminants in carriers.

The DAF is responsible for administering the Biosecurity Act.

Seqwater will be required to comply with their GBO during the implementation of the Project.

Environmental Protection Act 1994

The *Environmental Protection Act 1994* (EP Act) provides the legislative framework for ecologically sustainable development in Queensland. Its purpose is to protect Queensland's environment while allowing for development that improves the total quality of life, now and in the future, in a way that maintains the ecological processes on which life depends.

Section 319 of the EP Act defines the "General Environmental Duty" and states that a person must not carry out any activity that causes, or is likely to cause, environmental harm unless the person takes all reasonable and practicable measures to prevent or minimise the harm. Section 320 of the EP Act also requires a duty to notify, where a person is required to give notice where serious or material environmental harm is caused or there is a risk of such harm, and that harm is not authorised.

To decide the measures required to meet the general environmental duty in accordance with the EP Act, regard must be had to:

- The nature of the harm or potential harm
- The sensitivity of the receiving environment
- The current state of technical knowledge for the activity
- The likelihood of successful application of the different measures that might be taken
- The financial implications of the different measures as they would relate to the type of activity.

The EP Act establishes a number of mechanisms to achieve its objectives; these include, creating a 'general environmental duty', regulating contaminated land, licencing of Environmentally Relevant Activities (ERAs), and issuing the Environmental Protection Policies (EPPs) and Regulations under the Act. EPPs include:

- *Environmental Protection (Air) Policy 2008* (EPP Air)
- *Environmental Protection (Water) Policy 2009* (EPP Water)
- *Environmental Protection (Noise) Policy 2007* (EPP Noise).

The *Environmental Protection Regulation 2008* (EP Regulation) controls activities with potential to release contaminants into the environment (Environmentally Relevant Activities [ERAs]), contains referrable wetland requirements, prescribes water contaminants (Schedule 9) and sets environmental values for wetlands (s.81A). The EP Act and EP Regulation regulate ERAs through EA conditions.

The EP Act is administered by the Department of Environment and Science (DES).

The Project will require a licence for ERA 16 Extractive and screening activities 2(a) for the borrow pit used during construction as, while the required amount is yet to be confirmed, a total of 5,000 tonnes or more of material will be extracted.

Environmental Protection (Air) Policy 2008

The *Environmental Protection (Air) Policy 2008* (EPP (Air)) provides for the management and regulation of commercial and industrial air emissions that could adversely impact on sensitive receptors.

The environmental values listed in the EPP (Air) that are to be enhanced or protected under the policy are:

- The qualities of the air environment that are conducive to protecting the health and biodiversity of ecosystems; and
- The qualities of the air environment that are conducive to human health and wellbeing; and
- The qualities of the air environment that are conducive to protecting the aesthetics of the environment, including the appearance of buildings, structures and other property; and
- The qualities of the air environment that are conducive to protecting agricultural use of the environment.

Air quality objectives are set out in the EPP (Air) to protect these environmental values are published in Schedule 1 of the EPP (Air). Activities associated with the Project have the potential to affect air quality, therefore an assessment of potential impacts is required. This is provided in Chapter 11 and Appendix J.

Environmental Protection (Water) Policy 2009

The *Environmental Protection (Water) Policy 2009* (EPP Water) provides for the achievement of the objectives of the EP Act in relation to Queensland waters. This is done by:

(a) Identifying environmental values and management goals for Queensland waters; and
(b) Stating water quality guidelines and water quality objectives to enhance or protect the environmental values; and
(c) Providing a framework for making consistent, equitable and informed decisions about Queensland waters; and
(d) Monitoring and reporting on the condition of Queensland waters.

Environmental values for Queensland waters includes the protection of aquatic ecosystems. The components of aquatic ecosystems to be protected are generally specified under the EPP (Water) for a given waterway if water quality objectives have been listed under Schedule 1 of the EPP (Water). Environmental values and water quality objectives have been set for Six Mile Creek in the *Environmental Protection (Water) Policy 2009* Mary River environmental values and water quality objectives Basin No. 138, including all tributaries of the Mary River July 2010.

The Project is within a waterway and an assessment of potential impacts is therefore required in relation to the EPP Water. This is provided in Chapter 6 – Water Resources, Chapter 7 – Water Quality, Chapter 8 – Aquatic Ecology, and Appendix G.

Environmental Protection (Noise) Policy 2008

The purpose of the *Environmental Protection (Noise) Policy 2008* (EPP (Noise)) is to protect Queensland's acoustic environment according to the principles of ecologically sustainable development established in the EP Act. The purposes of the EPP (Noise) are achieved by:

- Identifying environmental values that are to be enhanced or protected
- Stating acoustic quality objectives for enhancing or protecting the environmental values
- Providing a framework for making consistent, equitable and informed decisions about the acoustic environment.

The environmental values described in the EPP (Noise) are:

- The qualities of the acoustic environment that are conducive to protecting the health and biodiversity of ecosystems.
- The qualities of the acoustic environment that are conducive to human health and wellbeing, including by ensuring a suitable acoustic environment for individuals to either sleep, or study / learn, or recreational activities (including relaxation and conversation).
- The qualities of the acoustic environment that are conducive to protecting the amenity of the community.

Acoustic objectives are set out in the EPP (Noise) to protect these environmental values. Activities associated with the Project have the potential to affect the acoustic environment, therefore an assessment of potential impacts is required. This is provided in Chapter 11 and Appendix K.

Water Act 2000

The purpose of the Water Act is to provide for the sustainable management of water and other resources and the establishment and operation of water authorities, and for other purposes. The Water Act regulates the taking of and interference with water, excavation or placing of fill in a watercourse, and removal of vegetation in a watercourse for waters recognised as waterways under the Water Act. It also provides for the sustainable allocation of water for environmental purposes (i.e. environmental flows to protect ecological functions in rivers).

In relation to the Project, Queensland Bulk Water Supply Authority (trading as Seqwater) holds a water licence under the Water Act for Six Mile Creek Dam. Seqwater is obliged to make specified environmental flow releases from the dam under the water licence to meet ecological outcomes in Six Mile Creek. The flow release conditions must be maintained throughout the dam upgrade works.

Riverine Protection Permit exemption requirements apply for the excavation, placement of fill and destruction of vegetation in a watercourse, lake or spring as Seqwater is an approved entity under Schedule 2 of the guideline (WSS/2013/726, version 2.00). As an approved entity, Seqwater is not subject to the landowner volumetric limits

defined in the exemption requirements guideline. Based on current planning, it is not proposed to clear riparian vegetation that is classified as an RE or remove vegetation within a watercourse, lake, or spring for the Project. If construction plans change, the exemption requirements for removal of vegetation will need to be considered.

A quarry material allocation may be required, if the extracted material is used for a beneficial purpose (e.g. used for a productive purpose, such as for manufacturing, roads, building or fill).

As Seqwater is a statutory authority (the Queensland Bulk Water Supply Authority) established under the *South East Queensland Water (Restructuring) Act 2007*, it is classified as a constructing authority under the Water Act and therefore may use a statutory authorisation to take or interfere with water for relevant construction activities under the Act, subject to prescribed conditions.

Water Supply (Safety and Reliability) Act 2008

The *Water Supply (Safety and Reliability) Act 2008* (WSSR Act) is an act to provide for the safety and reliability of water supply. Relevantly, the WSSR Act includes provisions for the registration of service providers who supply water and reporting requirements for service providers, as well as providing for:

- a regulatory framework for providing water and sewerage services in the State, including functions and powers of service providers
- a regulatory framework for providing recycled water and drinking water quality, primarily for protecting public health
- management of dam safety including failure impact assessment and other general matters related to referrable dam management
- flood mitigation responsibilities
- emergency action planning.

Those sections included in the WSSR Act related to referable dams and flood mitigation were previously contained in the Water Act. A dam is required to be failure impact assessed if, because of any works proposed to be carried out in relation to a referable dam, the storage capacity of the dam will increase by more than 10 % after the works are carried out. For a referable dam, the completion and acceptance of a failure impact assessment in accordance with the WSSR Act is a prerequisite to the making of a development application. A referable dam must also have an Emergency Action Plan.

The WSSR Act is administered by the DNRME.

Six Mile Creek Dam is an existing referable dam. Project works will not trigger referable dam assessable development provisions under the Planning Regulation.

Environmental Offsets Act 2014

The *Environmental Offsets Act 2014* (EO Act) provides for environmental offsets to counterbalance significant residual impacts of particular activities on particular matters of national, State or local environmental significance and to establish a framework in relation to environmental offsets. The EO Act defines a significant residual impact in section 8 as an adverse impact, whether direct or indirect, of a prescribed activity on all or part of a prescribed environmental matter that—

(a) remains, or will or is likely to remain, (whether temporarily or permanently) despite on-site mitigation measures for the prescribed activity; and

(b) is, or will or is likely to be, significant. In identifying whether an activity will, or is likely to have, a significant residual impact, an administering agency may refer to:
  - the Commonwealth Significant Impact Guidelines for what constitutes a significant residual impact on MNES
  - the State guideline that provides guidance on what constitutes a significant residual impact for MSES
  - any relevant local government significant impact guideline for MLES.

DES are responsible for administering the EO Act.

The Project will require environmental offsets in relation to koala habitat and, potentially, fish passage.

Aboriginal Cultural Heritage Act 2003

The *Aboriginal Cultural Heritage Act 2003* (ACH Act) provides for the effective recognition, protection and conservation of Aboriginal cultural heritage in Queensland. Section 23 of the ACH Act sets out a cultural heritage duty of care. The duty of care requires land users to take all reasonable and practicable measures to ensure their activity does not harm Aboriginal cultural heritage. This duty of care applies to any activity where Aboriginal cultural heritage is located. This includes cultural heritage located on freehold land and regardless of whether it has been identified or recorded in a database.

The cultural heritage duty of care can be met a number of ways including:

- the person is acting:
  - under the authority of another provision of this ACH Act that applies to the Aboriginal cultural heritage, or
  - under an approved Cultural Heritage Management Plan that applies to the Aboriginal cultural heritage, or
  - under a native title agreement or another agreement with an Aboriginal Party, unless the Aboriginal cultural heritage is expressly excluded from being subject to the agreement, or
  - in compliance with gazetted cultural heritage duty of care guidelines, or
  - in compliance with native title protection conditions, but only if the cultural heritage is expressly or impliedly the subject of the conditions, or
- the person owns the Aboriginal cultural heritage, or is acting with the owner's agreement, or
- the activity is necessary because of an emergency, including for example, a bushfire or other natural disaster.

The ACH Act also provides for Aboriginal persons or groups to act as 'Aboriginal parties' for an area.

The Department of Aboriginal and Torres Strait Islander Partnerships is responsible for administering the AHA Act.

There is currently no registered Cultural Heritage Body for the Project area (Lot 118 MCH814). However, the area is under a Registered Native Title Application (QC2013/003 – QUD280/2013) by the Kabi Kabi First Nation. It is not known when a determination on this application is expected.

Queensland Heritage Act 1992

The *Queensland Heritage Act 1992* (QH Act) provides for the conservation of Queensland's non-indigenous heritage. The QH Act provides for the establishment and maintenance of the Queensland Heritage Register and aims to regulate development of registered places. The QH Act also requires local government to prepare and maintain a local heritage register.

The DES is responsible for administering the QH Act.

There are no places listed on the Queensland Heritage Register in or adjacent to the Project area, therefore no approvals are required under the QH Act.

Land Act 1994

The purpose of the *Land Act 1994* is to administer and manage non-freehold land and deeds of grant in trust and the creation of freehold land, and for related purposes. Land to which the Act applies must be managed for the benefit of the people of Queensland having regard to the following principles:

- Sustainable resource use and development
- Evaluation and appraisal of value that considers different economic, environmental, cultural and social opportunities and values of the land
- Allocation of land for development in the context of the State's planning framework, and applying contemporary best practice in design and land management and the allocation to persons who will facilitate its most appropriate use that supports the economic, social and physical wellbeing of the people of Queensland
- The retention of the land for the community in a way that protects and facilitates the community purpose
- Protection of environmentally and culturally valuable and sensitive areas and features
- Consultation with community groups, industry associations and authorities is an important part of the decision-making process
- A market approach in land dealings, adjusted when appropriate for community benefits arising from the dealing.

The majority of the land impacted by the inundation area is freehold land and so not impacted by this Act.

DNRME is responsible for administering the *Land Act 1994*.

Under the *Land Act 1994* the Project may need an application for any temporary road closures pending Noosa Shire Council's decision, and a permit to occupy will be required for works on the shoulder of Lake Macdonald Drive and Collwood Road. The assessment manager for the application may be DNRME if notice of the application is made to Noosa Shire Council and they defer responsibility for the land dealings to DNRME. These aspects of the Project will be progressed at a later date, prior to construction, when detailed information is available to support applications.

3.3 Planning Framework

3.3.1 State Planning Matters

State Planning Policy

The State Planning Policy (SPP) commenced on 03 July 2017 and contains 17 state interests that are important to protect and enhance through Queensland's continued development. The SPP provides a consolidated and comprehensive view of the State's interests in land use planning and development. It sets out the matters that must be addressed in local government planning schemes and regional plans.

The integration of the SPP into local planning instruments ensures that the State's interests in planning are protected and managed in a way that is relevant to every area across Queensland. The State Government works with councils to ensure that the state interests are adequately reflected in their schemes, and the Planning Minister provides the final approval of these instruments.

The state interests are arranged under five themes:

- Liveable communities and housing
- Economic growth
- Environment and heritage
- Safety and resilience to hazards
- Infrastructure.

The state interests of most relevance to this Project include:

- Biodiversity
- Water quality
- Energy and water supply.

The SPP applies as a 'matter to have regard to' under the *Planning Regulation 2017* only if the relevant state interests in the SPP are identified as having not been appropriately integrated in a local planning instrument, and only to the extent of any inconsistency. This applies to both code and impact assessment, to the extent of any inconsistency. Where the State government is an assessment manager or referral agency then Part C: Purpose and guiding principles and Part D: The state interest statements of the SPP apply to the assessment of the application. When a local planning scheme has not yet been updated to incorporate the SPP state interests, the council will assess a development application using the assessment benchmarks in the SPP. Note: Not all state interests have assessment benchmarks.

State Development Assessment Provisions

State Development Assessment Provisions (SDAP) provide assessment benchmarks for the assessment of development applications where the chief executive is the assessment manager or a referral agency. The SDAP is structured in a performance-based code format, whereby applicants can address performance criteria to demonstrate that a development appropriately manages any impacts on a matter of state interest, and/or protects a development from impacts of matters of state interest. In making a development application to State Assessment and Referral Agency (SARA), applicants should respond to each of the relevant provisions of the applicable state codes in the SDAP.

The SDAP outlines a purpose statement for each state code, as well as performance outcomes and acceptable outcomes.

The SDAP includes State codes that are locational and use-based. The only relevant State code for the Project is State code 18: Constructing or raising waterway barrier works in fish habitats.

State Government Supported Infrastructure - Koala Conservation Policy (2017)

The purpose of the State Government Supported Infrastructure - Koala Conservation Policy (2017) is to outline how Queensland public sector entities will consider koala conservation outcomes in the planning and delivery of government supported infrastructure.

This policy ensures that State activities not regulated through planning schemes or in accordance with the koala assessment benchmarks in Schedule 11 of the Planning Regulation 2017 (i.e. previously regulated under the repealed 'South East Queensland Koala Conservation State Planning Regulatory Provisions), meet the same requirements as the Planning Regulation 2017, to ensure equitable treatment of State and non-State infrastructure projects.

In practice, delivery of the Project requires consideration of mapping of koala habitat values in the South East Queensland Koala Protection Area (SEQKPA), and avoidance of clearing or provision of koala habitat offsets in accordance with the *Environmental Offsets Act 2014*.

The State Government Supported Infrastructure – Koala Conservation Policy is administered by DES.

The Project will trigger the koala habitat offset provision of this Koala Conservation Policy and these will likely be delivered as land based offsets, with the size and other characteristics of the offset defined by the current Environmental Offset Policy. This does not trigger development approval, though annual reporting of the relevant clearing and offsets under the Koala Conservation Policy would be provided to DES.

3.3.2 Regional Planning Matters

The South East Queensland Regional Plan 2017

The South East Queensland Regional Plan 2017 (also known as ShapingSEQ) provides a regional framework for growth management and sets planning direction for sustainable growth, global economic competitiveness and high-quality living. It informs local planning across the region's 12 local government areas through a planning framework that relies on a range of other plans and programs for effective delivery. These include local government planning schemes, and other planning instruments including the State Infrastructure Plan. The plan is supported by regulatory provisions found in the *Planning Regulation 2017*.

The plan sets five goals for the region. The goals that are relevant to the Project are:

- Connect – Element 5 (Regional infrastructure networks)
- Sustain – Elements:
  - 1 – Aboriginal and Torres Strait Islander peoples
  - 2 – Biodiversity
  - 3 – Koala conservation
  - 4 – Regional landscapes
  - 5 – Water sensitive communities
  - 6 – Natural economic resources
  - 9 – Climate change
  - 10 – Safety
- Live – Element 4 (Working with natural systems).

The Project is not located within a regional plan trigger area in the SARA development assessment mapping, but is within a Priority Living Area. It is also located within, or may affect, areas included in the following ShapingSEQ matters:

- SEQ regional biodiversity corridor
- SEQ regional biodiversity value
- SEQ regional greenspace network.

3.3.3 Local Planning Matters

The Noosa Plan

The Noosa Plan is the planning scheme for the Noosa Shire and provides the planning framework for the region. It includes locality plans, zoning maps, overlay maps and planning scheme policies, and:

- Outlines the desired environmental outcomes sought for Noosa as a whole and for its localities
- Allocates land for different uses
- Coordinates and integrates infrastructure and land use planning
- Identifies areas or places that constrain the use of land due to their environmental value, resource value or their adverse effects on development
- Identifies the kind of development that requires approval (assessable development) or that can be carried out without approval if certain requirements are met (self-assessable development)
- Specifies the development standards or criteria for assessing the suitability of a development proposal
- Regulates vegetation clearing through the provisions of the Biodiversity Overlay.

The Noosa Shire Council intends to finalise a New Noosa Plan in 2019. The New Noosa Plan is currently being reviewed by the State Government against State and regional interests. If the New Noosa Plan comes into effect before development applications are lodged for the Project, either an assessment of the new planning scheme or a request to apply under the superseded planning scheme will be required.

The Project is within the Cooroy and Lake Macdonald Locality Plan, Open Space Conservation Zone, Community Services Zone, and Biodiversity Overlay (designated as an Environmental Protection Area and Riparian Buffer Area). Consequently, under the Noosa Plan:

- Works relating to the construction and use of the concrete batching plant constitute a material change of use for which a development permit application and impact assessment against the planning scheme is required. As per the pre-lodgement meeting for the Project, the use of concrete batching associated with construction works is defined as Industrial Business Type 2 – Production, alteration, repackaging and repairing.
- Where clearing in an Environmental Protection Area or where conducting a new use in the Riparian Buffer Area the Project is required to address the Biodiversity Overlay Code. It was noted during the pre-lodgement meeting that the proposed concrete batching plant would be temporary and is likely to meet Specific Outcome 5.1a of the Biodiversity Overlay Code.

Through pre-lodgement discussions and as confirmed in IAR consultation with Noosa Shire Council on26 February, 2018 an operational works approval is not required for works on Noosa Shore Council's road reserve oron private land. This is based on Schedule 6, Part 3, (8) of the *Planning Regulation 2017*, whereby operational workundertaken by or for a public sector entity, authorised under a State law to carry out the work, cannot be declared assessable development under a local categorising instrument (planning scheme).

3.4 Land use and tenure

The Project is wholly located within land owned by Seqwater, with the exception of works for the left embankment and the saddle dam. The tenure of Lot 118 MCH814 and Lot 1 RP800331, which incorporate the majority of the construction footprint, is freehold and owned by Seqwater. The construction footprint for the left embankment encroaches on the Lake Macdonald Road reserve, and the saddle dam will be constructed on, or adjacent to Collwood Road. Lake Macdonald Drive and Collwood Road are road reserves controlled by Noosa Shire Council. As such, a Permit to Occupy and Temporary Road Closure (partial closure) approvals will be required.

3.5 Regulatory Approvals

Required Approvals

The regulatory approvals and permits required by the Project are listed in Table 3-1. The table identifies the applicable legislation, relevant provisions within the legislation, the relevant Project activity, the approval name and the assessment manager. The table does not include applicable approval exemptions, which are described in the section below, or approvals that are not triggered by the currently proposed works.

Applicable Exemptions

The following regulatory approval exemptions are applicable to the Project under the *Planning Regulation 2017*:

- Schedule 6 (Development local categorising instrument is prohibited from stating is assessable development), Part 3 (Operational work), Section 8 (Operational work by or for public sector entity)
- Schedule 7 (Accepted development), Part 1 (Building work), Section 2 (Building work by or for the State or a public sector entity) – for site construction facilities. The works must comply with the accepted development criteria to meet the exemption.

- Schedule 7 (Accepted development), Part 3 (Operation Work), Section 5 (Operational work for taking or interfering with water)
- Schedule 10 (Assessable development), Part 5 (Environmentally relevant activities), Section 8 (Assessable development—material change of use for an environmentally relevant activity) as the borrow pit is not a concurrence ERA requiring a material change of use
- Schedule 21 (Exempt clearing work), Part 2 (Clearing for particular land), Section 2(c) (Freehold land (clearing vegetation that is necessary for essential management)). Definition in Schedule 24 (Essential management necessary to maintain infrastructure unless the clearing is for sourcing construction material).

Riverine Protection Permit exemption requirements apply for the excavation, placement of fill in a watercourse, lake or spring as Seqwater is an approved entity under Schedule 2 of the guideline (WSS/2013/726, version 2.00).

Seqwater is classified as a constructing authority under the *Water Act 2000* and therefore may use a statutory authorisation to take or interfere with water for relevant construction activities under the Act, subject to prescribed conditions.

Table 3-1: Required regulatory approvals

LEGISLATION	RELEVANT PROVISIONS	RELEVANT PROJECT ACTIVITY	APPROVAL NAME	RELEVANT AGENCY
Commonwealth				
Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)	Sections 18 and 18A	Whole of Project	EPBC Act approval	Minister for the Environment - Department of Environment and Energy
Queensland				
State Development and Public Works Organisation Act 1971 (SDPWO Act)	Part 4, Section 26 (1)(b) Part 4, Sections 34E to 34L	Whole of Project	Coordinated project declaration and approval	Coordinator General - Department of State Development, Manufacturing, Infrastructure and Planning
Environmental Protection Act 1994 (EP Act)	*Environmental Protection Regulation 2008* Schedule 2, Part 4, Section 16(1)(b)	Borrow pit	ERA 16 - Extractive, dredging and screening 2(a) - Extracting (other than by dredging) 5,000 tonnes to 100,000 tonnes of material in a year (Site specific application)	Department of Environment and Science
Planning Act 2016 *Fisheries Act 1994*	Schedule 10, Part 6, Division 4, Section 12	Construction of new spillway and temporary coffer dam	Operational work that is constructing or raising waterway barrier works (State code 18)	Department of State Development, Manufacturing, Infrastructure and Planning Department of Agriculture and Fisheries
The Noosa Plan	Part 6, Division 12, Table 6.10 and Part 6, Division 7, Table 6.5	Concrete batching plant	Material change of use for "other use" (concrete batching) in an Open Space Conservation zone/Community Services zone	Noosa Shire Council

LEGISLATION	RELEVANT PROVISIONS	RELEVANT PROJECT ACTIVITY	APPROVAL NAME	RELEVANT AGENCY
Nature Conservation Act 1992	*Nature Conservation (Wildlife Management) Regulation 2006* Chapter 7, Part 3	Vegetation clearing and lake lowering	Permit to tamper with animal breeding places: • A low risk Species Management Program (SMP) is required for least concern species • A high risk SMP is required for special least concern, endangered, vulnerable and near threatened species.	Department of Environment and Science
	Nature Conservation (Wildlife Management) Regulation 2006 Chapter 4, Part 2, Division 4 and Chapter 4, Part 3 and Chapter 4, Part 4A	Vegetation clearing	Protected plant clearing permit – if protected plants are found in areas to be cleared or Exempt clearing notification – if no protected plants found in areas to be cleared	Department of Environment and Science
Environmental Offsets Act 2014	Section 8 of the EO Act *Environmental Offsets Regulation 2014*, Schedule 2	Construction of spillway – fish passage Vegetation clearing – koala habitat	Not applicable – a condition of other approvals if there is a significant residual impact on a prescribed environmental matter	Department of Environment and Science
Aboriginal Cultural Heritage Act 2003	Part 3 and Part 7	Whole of Project	There is a general requirement for the Project to comply with the Aboriginal Cultural Heritage Act Duty of Care Guidelines. The Project will prepare a Cultural Heritage Management Plan (CHMP) or agreement, including consultation and any field investigation and monitoring necessary with the	Department of Aboriginal and Torres Strait Islander Partnerships

LEGISLATION	RELEVANT PROVISIONS	RELEVANT PROJECT ACTIVITY	APPROVAL NAME	RELEVANT AGENCY
			involvement of the relevant Aboriginal Party.	
Biosecurity Act 2014	Chapter 2, Part 1	Whole of Project	Not applicable – overall requirement to comply with General Biosecurity Obligation	Department of Agriculture and Fisheries
Land Act 1994	Chapter 4, Part 4	Works on left embankment, adjacent to Lake Macdonald Drive Works on saddle dam, adjacent to Collwood Road	Permit to occupy (responsibility of contractor)	Department of Natural Resources, Mines and Energy
	Chapter 3, Part 2	Use of access roads (local)	Road closure permit or road licence. (responsibility of contractor)	Department of Natural Resources, Mines and Energy

3.6 Key Approval Requirements Identified in IAR

3.6.1 Evaluation of controlled action under the EPBC Act

The Commonwealth Minister for the Environment declared the Project a controlled action requiring impact assessment. As such the Project is to be assessed by an Impact Assessment Report (IAR) under the Bilateral Agreement with the Queensland Government. The information required to assess the Project under the EPBC Act is identified in Table 3-2 along with relevant sections in the IAR.

Table 3-2: Approval requirements for evaluation of a controlled action under the EPBC Act

REFERENCE	INFORMATION REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
n/a	Description of the proposed action	Chapter 2, sections 2.1, 2.2, 2.3, and 2.4	The proposed action comprises the replacement of the spillway and embankments at Six Mile Creek Dam for a safety upgrade.
	Description of alternatives to proposed action	Chapter 2, section 2.1.3	Alternative considered included risk reduction strategies, partial dam upgrade, relocating the spillway and embankment, decommissioning the storage, replacement with a weir and new dam options.
	Standalone assessment for assessment under the EPBC Act	A standalone document has been provided in conjunction with the IAR.	The standalone document comprises Chapter 5 of the IAR with relevant technical reports appended.
	Description of identified listed threatened species	Chapter 5, sections 5.3, 5.6.1, 5.6.2 and 5.6.3	Key identified listed threatened species that may be affected by the action are the giant barred frog, Mary River cod, Australian lungfish, Mary River turtle, and white-throated snapping turtle.
	Description of likely relevant impacts to listed threatened species	Chapter 5, section 5.6.4	Primary impacts include a temporary loss of habitat in Lake Macdonald during construction, changes to the flow regime in Six Mile Creek during the drawdown of Lake Macdonald, and vegetation clearing.
	Description of possible mitigation measures to reduce the impact on listed threatened species	Chapter 5, section 5.6.4	Measures include, but are not limited to, restricting works to Project footprint, implementation of an Environmental Management Plan and Species Management Plan, management of lake drawdown and water quality, fauna salvage from Lake Macdonald.
	Description of any significant residual impacts and offsets required.	Chapter 5, section 5.6.4	A fauna salvage program will be implemented to reduce potential significant residual impacts associated with the temporary lowering of Lake Macdonald. Upstream fish passage will not be provided due to biosecurity concerns;

REFERENCE	INFORMATION REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
			off-site mitigation in the same catchment is proposed.
	An assessment of the cumulative construction impacts related to all known proposed developments in the region with respect to each controlling provision and all identified consequential actions.	Chapter 5, section 5.7	No cumulative impacts are expected as, although other Projects are occurring downstream, the action is replacing an existing dam, with no proposed change to its capacity or operation, and works will be temporary and constrained to areas of prior disturbance wherever possible.
	Overall conclusion describing the acceptability of the impact of undertaking the action in the manner proposed on the protected matters	Chapter 5, section 5.8	Based on the assessment of Project impacts on listed threatened species and communities against the relevant significant impact criteria, the Project overall is unlikely to have a significant impact due to the temporary and localised nature of the works.

3.6.2 Environmental Authority for Environmentally Relevant Activity 16 2(a) – Extractive and Screening Activities

The location of the proposed borrow pit is within the coordinates in Table 3-3, and is shown in Figure 3-1.

The information required to assess the Project for an environmental authority for ERA 16, 2(a) – extractive and screening activities is identified in Table 3-4 along with relevant sections in the IAR and a summary response.

The extractive activity will consist of clay material removal from a natural hummock landform. This land is currently used for scouting activities (i.e. camping). The extraction will scrape earth to a maximum depth of 6 m and the final landform will be a reprofiled slope or benched arrangement from existing buildings north of the extraction area, down to the lake. The final landform will be topsoiled, grassed and will be suitable for camping activities following construction. Materials will not be used to re-fill the pit due to the potential for future subsidence along with other engineering and logistics challenges, including site constraints for intermediate storage.

Table 3-3: GPS coordinates for borrow pit boundary

LATITUDE	LONGITUDE
-26.381203	152.938520
-26.381186	152.938270
-26.381165	152.937558
-26.381805	152.937343
-26.382001	152.937614
-26.381823	152.937738
-26.381982	152.938036
-26.381954	152.938243
-26.381864	152.938219
-26.381650	152.938376
-26.381602	152.938663

Table 3-4: Approval requirements for an Environmental Authority for Environmentally Relevant Activity – Extractive and Screening Industries (borrow pit)

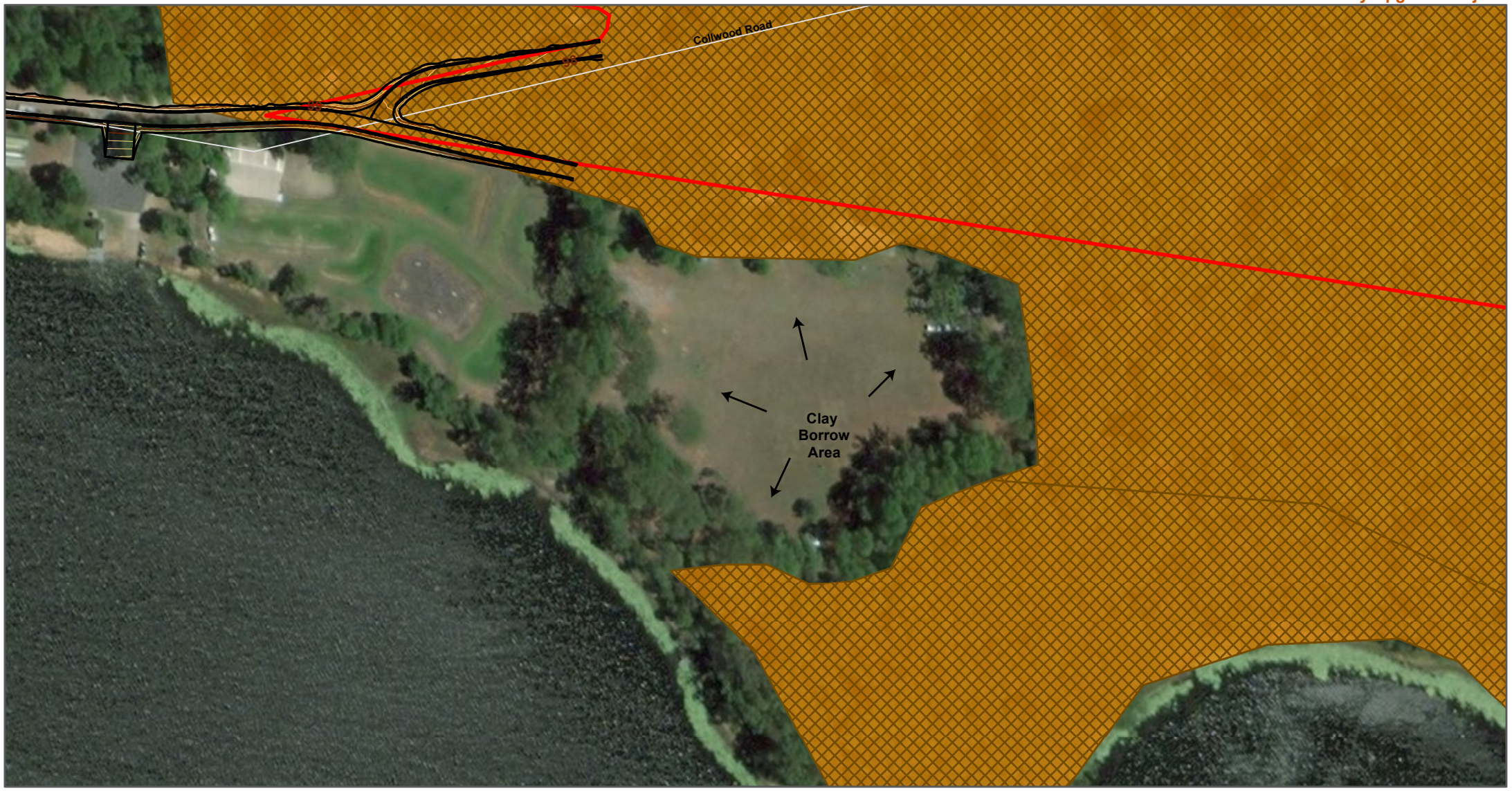
APPROVAL / PERMIT REFERENCE	INFORMATION REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
Application for an environmental authority			
1 – Applicant details	--	Chapter 1, section 1.2	Applicant is Seqwater
2 – Details of the ERA(s) being applied for	List ERA number, threshold, name and compliance	Appendix M Chapter 2	Extractive and screening activities
3 – Description of land where ERA will be carried out	Detailed location information	Chapter 2, section 2.2.1	Works will primarily occur on Lot 1 RP800331
4 – Details of contaminated land	Is a site management plan in effect?	--	There is no site management plan – no contaminated land present.
5 – Existing environmental authorities at the location	Are there any existing environmental authorities at this location?	--	No.
6 – Other related approvals	Are any other approvals required to conduct the ERA(s)?	Chapter 3, Table 3-1.	Yes, refer to Table 3-1..
7 – Environmental offsets	Will the ERA result in a significant residual impact to a Matter of State environmental significance?	Chapter 8, section 8.7 and Appendix J	Offsets required for koala habitat.
8 – Matter of national environmental significance	Will carrying out the proposed ERA be likely to have a significant impact on MNES?	Chapter 5, section 5.7	Based on an assessment of Project impacts on listed threatened species and communities against the relevant significant impact criteria, the Project overall is unlikely to have a significant impact due to the temporary and localised nature of the works.
9 – Environmental impact statement under the SDPWO Act	Has an environmental impact statement process been completed? Are there any conditions from Coordinator General that relate to this ERA?	This document	An IAR has been completed under the SDPWO Act. Conditions are to be determined.
10 – Assessment of the environmental impact	Provide assessment of the environmental impact	This document	Not applicable as an IAR has been completed for all relevant approvals.

APPROVAL / PERMIT REFERENCE	INFORMATION REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
11 – Details of waste management	Describe the proposed measures for minimising and managing waste generated by the activities	Appendix B – Environmental Management Plan	Waste is expected to be mostly inert and will be managed in accordance with relevant standards and legislation.
State Code 22 – Environmentally Relevant Activities (Material Change of Use) *(included for reference only)*			
PO1	Development is suitably located and designed to avoid or mitigate environmental harm to the acoustic environment.	Chapter 2, section 2.4.6 Figure 2-8 Chapter 11 Appendices B and K	Mitigation measures will be implemented to ensure activity at the borrow pit meets the acoustic quality objectives for sensitive receptors identified in the *Environmental Protection (Noise) Policy 2008*. Performance objectives for noise and vibration are outlined in the Project Environmental Management Plan.
PO2	Development is suitably located and designed to avoid or mitigate environmental harm to the air environment.	Chapter 2, section 2.4.6 Figure 2-8 Chapter 10 Appendices B and J	Mitigation measures will be implemented to ensure activity at the borrow pit meets the air quality objectives of the *Environmental Protection (Air) Policy 2008.* Performance objectives for air quality are outlined in the Project Environmental Management Plan.
PO3	Development, other than intensive animal industry for poultry farming, is suitably located and designed to avoid or mitigate environmental harm on adjacent sensitive land uses caused by odour.	Chapter 2, section 2.4.6 Figure 2-8 Chapter 10 Appendices B and J	Assessment of potential impacts for the overall Project indicates that the establishment and use of the borrow pit is not likely to generate significant odour. Proposed management practices and performance objectives for potential impacts to air quality are outlined in the Project Environmental Management Plan.
PO4	Development is suitably located and designed to avoid or mitigate environmental harm to the receiving waters environment.	Chapter 2, section 2.4.6 Figure 2-8 Chapter 6 Chapter 7 Appendices B and G	Assessment of potential impacts for the overall Project indicates that the establishment and use of the borrow pit is not likely to impact Lake Macdonald where appropriate mitigation measures, are implemented. Proposed management practices and performance objectives for potential impacts to receiving waters are outlined in the Project Environmental Management Plan. A site-specific

APPROVAL / PERMIT REFERENCE	INFORMATION REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
			Erosion and Sediment Control Plan that includes stormwater management will be developed before relevant works begin; this will be approved by Seqwater and adapt to the progress of the activity.
PO5	Development is designed to include elements which: 1. prevent or minimise the production of hazardous contaminants and waste as by-products; or 2. contain and treat hazardous contaminants on-site rather than releasing them into the environment; and 3. provide secondary containment to prevent the accidental release of hazardous contaminants to the environment from spillage or leaks.	Chapter 2, section 2.4.6 Figure 2-8 Chapter 4 Appendix B	The borrow pit will be established to obtain materials for the Project construction, and by its nature waste products will be minimised. An assessment of hazard and risk (Chapter 4) indicates that the risk of contamination associated with vehicle and plant used for the Project (including the borrow pit) is low where appropriate mitigation measures are implemented. An Environmental Management Plan has been drafted for the Project, which includes performance objectives and management measures such as bunding, carrying suitable spill kits and emergency planning.
PO6	Environmentally hazardous materials located on site are stored to avoid or minimise their release into the environment due to inundation during flood events.	Chapter 2, section 2.4.6 Figure 2-8 Chapter 4 Appendix B	An Environmental Management Plan has been drafted for the Project which includes performance objectives and mitigation measures such as storage of hazardous materials in accordance with relevant Australian Standards and Safety Data Sheets.
PO7	Development: 1. avoids impacts on matters of state environmental significance; or 2. minimises and mitigates impacts on matters of state environmental significance after demonstrating avoidance is not reasonably possible; and 3. provides an offset if, after demonstrating all reasonable avoidance, minimisation and mitigation measures are undertaken, the development results in an acceptable	Chapter 2, sections 2.2.1 and 2.4.6 Figure 2-8 Chapters 5, 7 and 8 Appendices G and I	The borrow pit may be located in the Camp Cooroora (i.e. scout camp) grounds at Lake Macdonald. This area has been previously disturbed and is largely covered by grass. Remnant and MSES vegetation on the east-southeast of the grounds will not be disturbed. Vegetation to the south-southwest is classified as non-remnant under Regional Ecosystem Mapping version 10.1 and may be cleared (refer to Figure 3-1). A protected plants clearing permit will be addressed as a separate matter, if required.

APPROVAL / PERMIT REFERENCE	INFORMATION REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
	significant residual impact on a matter of state environmental significance.		As assessment of the potential impacts of the overall Project, including the borrow pit, on matters of environmental significance is provided in this IAR (Chapters 5, 78 and 8). The assessment indicates that where appropriate management measures are implemented, the significant residual impact is acceptable.
PO8	Development: 1. avoids impacts on category C areas of vegetation and category R areas of vegetation; or 2. minimises and mitigates impacts on category C areas and category R areas of vegetation after demonstrating avoidance is not reasonably possible.		The borrow pit will be located in the Camp Cooroora (i.e. scout camp) grounds at Lake Macdonald. Remnant vegetation on the east-southeast of the grounds is classified as a 'Category A or B area containing of concern regional ecosystems' and will not be disturbed. Vegetation to the south-southwest is classified as non-remnant under Regional Ecosystem Mapping version 10.1 (refer to Figure 3-1). A protected plants clearing permit will be addressed as a separate matter, if required. The establishment and use of the borrow pit will not impact MSES, category C or category R vegetation.

FIGURE 3-1: PROPOSED LOCATION OF BORROW PIT



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SOURCES:
1. Localities, Roads, LGA, Waterways, Waterbody, Protected Areas © QLD Spatial Catalogue, State of Queensland (Department of Natural Resources, Mines and Energy) 2018
2. Basemap © Nearmap, 2018
3. Regulated vegetation management map v 2.8 @ State of Queensland (Department of Natural Resources, Mines and Energy) 2018

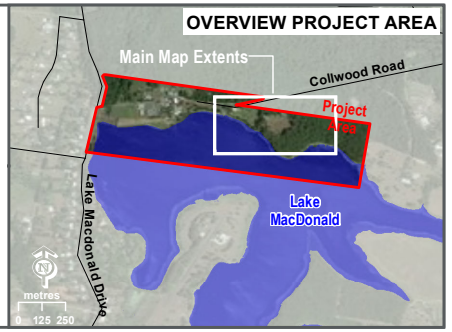
seqwater
WATER FOR LIFE

LEGEND

- Local Roads
- 1 m Contour Interval Line
- 0.25 m Contour Interval Line
- Upgraded Dam Layout (after construction)
- Project Area
- MSES Regulated Vegetation (Category B)

Regional Ecosystems

- Of Concern - Dominant



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3.6.3 Clearing Permit – Protected Plants

The Project may require a clearing permit for protected plants as it is located in a high risk area on the protected plants flora survey trigger map. A vegetation survey and assessment was completed (Chapter 9); however, due to the size of the Project study area and prior uncertainty about the location and extent of clearing, a targeted protected plants survey in accordance with the Flora Survey Guidelines – Protected Plants (DEHP 2016) has not yet been undertaken. A protected plants survey of the defined clearing areas will be completed as a separate matter before the Project commences in accordance with the Flora Survey Guidelines – Protected Plants (DEHP 2016).

If protected plants are identified within the areas to be cleared, a Clearing Permit (Protected Plants) application will be submitted. If no protected plants are present an Exempt Clearing Notification will be submitted to the DES.

3.6.4 Permit for Tampering with Animal Breeding Places

The information required to assess the Project for a Permit for tampering with animal breeding places is identified in Table 3-5 along with relevant sections in the IAR containing supporting information and a summary of the assessment or information provided.

Species management programs for MNES and MSES and least concern species are appended to this document (Appendix E).

Table 3-5: Approval requirements for a permit for tampering with animal breeding places

APPROVAL / PERMIT REFERENCE	INFORMATION REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
Species Management Program – Requirements for tampering with a protected animal breeding place in Queensland (Information Sheet)			
4 – Survey requirements	A survey for an animal breeding place is required in order to comply with the delegate approval process as an "approved species management program"	Appendix G – aquatic fauna Chapter 9, section 9.2 and Appendix I – terrestrial fauna	Surveys were completed by suitably qualified persons in accordance with relevant guidelines.
5 – Species management program requirements	Standard species management program documents	Appendix E	Species management programs have been drafted in accordance with the standard documents.
5.1 – Additional requirements for SMP – high risk of impact (Table 1)			
Application	Applicant details	Chapter 1, section 1.2	Applicant is Seqwater
	Location details	Chapter 2, section 2.2.1	Works will primarily occur on Lot 1 RP800331
	Approved agents	--	Contractors and sub-contractors to be determined
Terms of approval	Duration	Chapter 2, section 2.3	Project duration 18-24 months
Desktop assessment	Desktop assessment undertaken prior to field assessment	Chapter 7, section 7.2, and Appendix G – aquatic fauna Chapter 8, section 8.3.2 and Appendix I – terrestrial fauna	Desktop assessment was used to inform assessments of terrestrial and aquatic fauna.

APPROVAL / PERMIT REFERENCE	INFORMATION REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
Field assessment	Survey conducted by a suitably qualified and experienced person.	Appendix G – aquatic fauna Chapter 8, section 8.2 and Appendix I – terrestrial fauna	Surveys were completed by suitably qualified persons in accordance with relevant guidelines.
Assessment report	Animal breeding place survey report	Chapter 7 and Appendix G – aquatic fauna Chapter 8 and Appendix I – terrestrial fauna	Terrestrial and aquatic fauna presence and likelihood of breeding in the area affected by the Project is discussed.
Impact management plan	Impact management plan	Appendix E – Species management programs Appendix B – Environmental management plan Appendix C – Lake Macdonald lowering plan	Management measures to minimise potential impacts on fauna during the Project are identified in these documents.
Impact management strategies	Avoid or minimise interference with animal breeding place	Chapter 7 and Appendix G – aquatic fauna Chapter 8 and Appendix I – terrestrial fauna Appendix E – Species management programs Appendix B – Environmental management plan Appendix C – Lake Macdonald lowering plan	Measures to avoid impacts on fauna are identified in Chapters 7 and 8. Management measures to minimise impacts on fauna and breeding are identified in the chapters and the appendices.
	Nature of impact	Chapter 7 and Appendix G – aquatic fauna Chapter 8 and Appendix I – terrestrial fauna	Primary impacts are associated with a temporary loss of habitat in Lake Macdonald during construction, changes to the flow regime in Six Mile Creek during the drawdown of Lake Macdonald, and vegetation clearing.
	Management of impact	Appendix E – Species management programs Appendix B – Environmental management plan Appendix C – Lake Macdonald lowering plan	Management measures to minimise potential impacts on fauna during the Project are identified in these documents.

APPROVAL / PERMIT REFERENCE	INFORMATION REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
	Contingency planning	Appendix E – Species management programs Appendix B – Environmental management plan Appendix C – Lake Macdonald lowering plan	Contingency measures and responses to changed conditions or incidents are outlined in these documents. All management plans for the Project are intended to be adaptive.
Supporting information	The applicant has demonstrated proposed impact management measures are appropriate for the applicable species	Chapter 7 and Appendix G – aquatic fauna Chapter 8 and Appendix I – terrestrial fauna Appendix E – Species management programs	The relevance and suitability of management measures are

3.6.5 Development Permit – Operational Works for Constructing or Raising Waterway Barrier Works

The Project will require a development permit for Operational works for constructing or raising waterway barrier works. Information required for the development application is identified in Table 3-6 along with sections in the IAR that provide relevant supporting information and a summary response.

A completed draft of State Code 18 has been provided in Appendix M.

Table 3-6: Approval requirements for an Operational works for constructing or raising waterway barrier works development permit

APPROVAL / PERMIT REFERENCE	INFORMATION REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
Development application form			
Part 1 – Applicant details	Name and contact information	Chapter 1, section 1.2	Applicant is Seqwater
Part 2 – Location details	Location of premises as address and lot on plan or coordinates	Chapter 2, section 2.2	Works will primarily occur on Lot 1 RP800331
Part 3 – Development details			
Section 1 – Aspects of development	Type of development, approval type, level of assessment, description of proposal, and relevant plans.	Chapter 2, section 2.4 Appendix D	Per information requirements: • Replacement of existing dam spillway and embankments • Operational work – waterway barrier • Development permit • Impact assessment
Section 2 – Further development details (Division 3)	Nature of the operational work, does the work facilitate new lots, and monetary value of the proposed work.	Chapter 2, sections 2.4 and 2.1.1	The work is water infrastructure – dam replacement – that will not create new lots.
Part 4 – Assessment manager details	Identify assessment manager and if a superseded planning scheme applies	Chapter 3, Table 3-1 (part)	Assessment manager is SARA. A superseded planning scheme will not apply.
Part 5 – Referral requirements	Aspects of development requiring referral and referral response	Chapter 2, section 2.4	Application is for a Coordinated Project, whereby the referral and information stages are skipped, per the SDPWO Act.

APPROVAL / PERMIT REFERENCE	INFORMATION REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
Part 6 – Information request	Agreement to receive information request	Not addressed in IAR	Application is for a Coordinated Project, whereby the referral and information stages are skipped, per the SDPWO Act.
Part 7 – Further details	Associated development applications or approvals, further legislative requirements	Chapter 3, Table 3-1 (part)	There are associated development applications/approvals, as identified in the IAR.
Part 8 – Checklist and applicant declaration	Confirmation of form completion using true and correct information	Appendix M	All relevant and available information has been provided. The detailed design has yet to be completed, but will meet the outcomes and objectives specified in the IAR.
Template 4 – Waterway Barrier Works			
Part 1 – Development details	1) Fish movement exemption notice	Chapter 3, sections 3.2, 3.3 and Table 3-1 Chapter 7, section 7.4.2 Appendix G	No fish movement exemption notice. Upstream fish passage will not be provided due to biosecurity concerns. Downstream fish passage comprises movement over the spillway into a series of specially designed plunge pools.
	2) Nature of the proposed waterway barrier	Chapter 2, section 2.4	The barrier is new construction of a permanent labyrinth spillway from bank to bank. It will replace an existing bank to bank spillway.
	3) Type of proposed work	Chapter 2, section 2.4	The proposed work is a dam.
Part 2 – Constructing a new or raising/modifying an existing dam, weir, barrage, bund wall, coffer dam or other similar structures	4) What is the proposed development seeking approval for?	Chapter 2, section 2.4	The works are considered a new waterway barrier.
	5) Describe the type of barrier proposed	Chapter 2, section 2.4	The proposed barrier is a labyrinth spillway with earth embankments.
	7) Will the barrier extend from bank to bank	Chapter 2, section 2.4	Yes
	8) Purpose of the proposed barrier	Chapter 2, section 2.1.2	The barrier is a safety upgrade and will involve the replacement of the existing Six Mile Creek Dam and associated embankments

APPROVAL / PERMIT REFERENCE	INFORMATION REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
	9) Details of the construction materials	Chapter 2, sections 2.4.4 and 2.4.6	Construction materials will include concrete, earth and clay, and rock/aggregate.
	10) Details of proposed barrier in reference to diagram	Appendix D	The most current concept design is provided in the appendix. Detailed design is currently in progress and will be provided once available, following the IAR process to accompany the waterway barrier works application. The detailed design will incorporate recommendations from a fisheries biologist regarding fish passage.
State Code 18 - Constructing or raising waterway barrier works in fish habitats			
PO1 – PO3	Demonstrated need for development, functional requirement to be in waterway, extent of impacts minimised	Chapter 2, sections 2.1.2, 2.1.3 and 2.2.1 Appendix D	The development is required for dam safety purposes, and has a function requirement to be in a waterway. The extent of impacts has been minimised by containing the proposed footprint almost entirely within the footprint of the existing spillway.
PO4 – PO18	Consideration of impacts to fish passage and fish communities	Chapter 7, section 7.4.2 Appendix G	An assessment of potential impacts to fish passage and communities was undertaken. The spillway design has been informed by a qualified fisheries biologist and aquatic ecologist, with technical reports appended to the IAR.

3.6.6 Development Permit – Operational Works for Clearing Native Vegetation

While the Project will include clearing of regulated vegetation (approximately 1.45 ha), it is classified as exempt clearing work (Schedule 21, Part 2 (2)(c)) under the *Planning Regulation 2017*. Under the regulation, clearing for the Project is categorised as essential management on freehold land, with essential management defined as necessary to maintain infrastructure unless the clearing is for sourcing construction material (Schedule 24).

3.6.7 Development Permit – Material Change of Use for Concrete Batching

The Project will require a development permit for a material change of use for the temporary concrete batching plant. Information to justify the need for a temporary concrete batching plant for the Project is provided in Chapter 2 – Project Description, particularly section 2.4.8. In summary, the volume of concrete required to meet design requirements is large and warrants the proposed use for a temporary concrete batching plant, to provide flexibility of construction activities and quality control. The option of an on-site concrete batching plant should also result in fewer truck movements to the site, compared with trucking mixed concrete.

The development permit for material change of use will require impact assessment against the Noosa Plan. Information required for the development application is identified in Table 3-7 along with sections in the IAR that provide relevant supporting information and a summary response.

Applicable outcomes in the Noosa Plan are also identified in Table 3-7 along with the relevant supporting information in the IAR. The plan specifies:

- Overall and specific outcomes for the Cooroy and Lake Macdonald Locality
- Specific outcomes for each zone in the locality – Community Services and Open Space Conservation
- Overall and specific outcomes for the Biodiversity Overlay

An Environmental Management Plan that incorporates the proposed batching plant has been drafted and appended to this IAR (Appendix B). Prior to the Project commencing, detailed management plans will be prepared for the batching plant and provided to Noosa Shire Council. These will include an:

- Operational Management Plant, including information such as
  - operation of the facility
  - hours of operation
  - volume of production
  - quantity and storage of material
  - number of deliveries
  - details of any lighting and associated light spill
- Environmental Management Plan, including information such as:
  - how will offsite impacts be mitigated
  - details of truck washouts
  - fuel storage
- Traffic Management Plan
- Stormwater Management Plan
- Emergency Management Plan (if relevant)
- Vegetation Management Plan (if relevant).

3.6.8 Riverine Protection Permit

A Riverine Protection Permit is not required, as Seqwater is an approved entity and exemption requirements apply for the excavation, placement of fill and destruction of vegetation in a watercourse, lake or spring under the guideline (WSS/2013/726, version 2.00) (refer to section 3.5).

3.6.9 Temporary Road Closure and Permit to Occupy

Project works for the left embankment will occur on the shoulder of Lake Macdonald Drive. Project works for the saddle dam will also extend onto Collwood Road. As such the Project will require a Permit to Occupy these areas. The Project may also require an application for a temporary road closure. These permits will be the responsibility of the Project contractor and applications will be submitted after the contractor has been appointed and determined necessary details for application.

Table 3-7: Approval requirements for a material change of use for the temporary concrete batching plant

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
Development application form			
Part 1 – Applicant details	Name and contact information	Chapter 1, section 1.2	Applicant is Seqwater
Part 2 – Location details	Location of premises as address and lot on plan or coordinates	Chapter 2, section 2.2, Figure 2-8	Works will primarily occur on Lot 1 RP800331 , refer to Chapter 2, Figure 2.8 for the location of the temporary batching plant within the lot.
Part 3 – Development details			
Section 1 – Aspects of development	Type of development, approval type, level of assessment, description of proposal, and relevant plans	Appendix D Chapter 2, section 2.4	Per information requirements: • Construction of temporary concrete batching plant • Material change of use • Development permit • Impact assessment
Section 2 – Further development details (Division 1)	Description of proposed material change of use, use of existing buildings	Chapter 2, sections 2.2, 2.4.2 and 2.4.8	Current use of the lot plan subject to the application is for Seqwater dam operations (ranger) facilities (office and storage shed) and the Noosa water treatment plant. For the duration of the Project (18-24 months) a concrete batching will be located in the vicinity of the existing storage shed, which will be demolished. The change of use will not involve the use of existing buildings.
Part 4 – Assessment manager details	Identify assessment manager and if a superseded planning scheme applies	Chapter 3, Table 3-1 (part)	Assessment manager is Noosa Shire Council. A superseded planning scheme will not apply.
Part 5 – Referral requirements	Aspects of development requiring referral and referral response	Chapter 2, section 2.4.8	Application is for a Coordinated Project, whereby the referral and information stages are skipped, per the SDPWO Act.

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
Part 6 – Information request	Agreement to receive information request	Not addressed in IAR	Application is for a Coordinated Project, whereby the referral and information stages are skipped, per the SDPWO Act.
Part 7 – Further details	Associated development applications or approvals, further legislative requirements	Chapter 3, Table 3-1 (part)	There are associated development applications/approvals, as identified in the IAR.
Part 8 – Checklist and applicant declaration	Confirmation of form completion using true and correct information	Appendix M	All relevant and available information has been provided. The detailed design has yet to be completed, but will meet the outcomes and objectives specified in the IAR and in relevant codes and guidelines.
Noosa Plan			
Applicable overall outcomes for the Cooroy and Lake Macdonald Locality (Division 15)			
a)	New uses and works are located, designed and managed to – i. be compatible with other uses and works ii. maintain the safety of works iii. avoid significant adverse impacts on the amenity enjoyed by other users iv. avoid significant adverse effects on the natural environment	Chapter 2, sections 2.4.2, 2.4.3 and 2.4.8 Figure 2-8 Chapter 10 Chapter 11 Appendix D	The temporary concrete batching plant will be located on Seqwater land, in an area previously disturbed for installation of community services, namely dam operations and water treatment related facilities. The proposed temporary use will be compatible with the existing community services at the site and will be associated with construction works for a dam upgrade. The construction works will have a negative effect on amenity during the construction period, and the temporary use for a concrete batching plant is not anticipated to add significantly to reduced amenity. The temporary concrete batching plant will be de-commissioned and removed from site following completion of concrete works to the spillway, and the site will be reinstated at the completion of the Project. The plant will be operated in accordance with the General Environmental Duty Code of practice for the concrete batching industry.

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
b)	The Locality supports a growing urban and rural settlement of permanent residents	Chapter 2, sections 2.1.1 and 2.1.2	The temporary batching plant is enabling infrastructure for the Six Mile Creek Dam Safety Upgrade Project, which will improve the safety and performance of the dam to meet current and future safety regulations and water supply demands. The work to improve the safety of the dam will ensure Lake Macdonald is restored to its current state following the Project. The project, and the enabling use for a temporary concrete batching plant, will support the character of the locality for residents in the future.
d)	Development is consistent with the Priority Infrastructure Plan (Part 15)	Chapter 2, sections 2.4.3 and 2.4.8	The temporary concrete batching plant is classified as Industry Type 2 Production, alteration, repackaging and repairing and is the proposed location is outside the Priority Infrastructure Area boundaries. Therefore, it is inconsistent with the Priority Infrastructure Plan. However, the purpose of the temporary concrete batching plant is to supply concrete for the safety upgrade of Six Mile Creek Dam, which provides water to the Noosa region via Unitywater. Water supply is not addressed in the Priority Infrastructure Plan, but the upgrade of Six Mile Creek Dam will enable this infrastructure to service future growth in the region, which is a stated aim of the plan.
i)	The scenic and environmental values of Lake Macdonald, the Six Mile and Ringtail Creeks and their tributaries are preserved	Chapter 2, sections 2.4.3 and 2.4.8 Appendix B	The temporary concrete batching plant will be located on Seqwater land, in an area previously disturbed for installation of community services, namely dam operations and water treatment related facilities. The construction works will have a negative effect on amenity during the construction period, and the temporary use for a concrete batching plant is not anticipated to add significantly to reduced amenity. At the completion of the Project, the plant will be de-commissioned and the site reinstated.

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
			An Environmental Management Plan (EMP) that incorporates the temporary concrete batching plant has been drafted for the Project, and management plans to limit potential impacts specific to the batching plant will be prepared before the Project begins. The plant will be operated in accordance with the code of practice for the concrete batching industry.
k)	Heritage and environmental values associated with the landforms and landscapes, including the mountains, watercourse, and significant stands of remnant vegetation, are protected	Chapter 2, sections 2.4.3 and 2.4.8 Appendix B	The temporary concrete batching plant will be located in a previously disturbed area, which will be reinstated at the completion of the Project. The proposed use is not anticipated to impact on the landform and landscape. An EMP that incorporates the temporary concrete batching plant has been drafted for the Project, and management plans specific to the batching plant will be prepared before the Project begins. The plant will be operated in accordance with the code of practice for the concrete batching industry.
m)	Access to recreational facilities and larger centres on the coast as well as Gympie, Nambour and further afield is maintained	Chapter 2, section 2.2.4	The proposed new use for a batching plant will not interfere with access to the coast, Gympie, Nambour or other areas. Recreational facilities at Lake Macdonald will be suspended for the duration of the Project as a whole for two years due to safety considerations. This temporary change in recreational facilities will be related to the construction works as a whole.
o)	A high level of residential amenity, built upon the local rural industries, environmental values, outdoor recreation opportunities, built heritage, artistic talent, social networks and family values is maintained	Chapter 2, sections 2.2.2 and 2.2.4	The work to improve the safety of the dam will ensure Lake Macdonald is restored to its current state following the Project and into the future. The project, and the enabling use for a temporary concrete batching plant, will support the character of the locality for residents in the future. The batching plant will be located in a previously disturbed area with existing infrastructure, and will be temporary. As

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
			such, impacts to residential amenity from the batching plant will be minimised.
cc)	Environmental and aesthetic values associated with the hillslopes, including iconic mountains and the watercourses of Lake Macdonald, Ringtail, Six Mile and Cooroy Creeks, are protected	Chapter 2, sections 2.4.3 and 2.4.8 Chapters 5-14 (impact assessments on environmental aspects) Appendix B	The batching plant will be temporary and located in a previously disturbed area with existing infrastructure. At the completion of the Project, the plant will be de-commissioned and the site reinstated. An EMP that incorporates the plant has been drafted for the Project, and management plans to limit potential impacts specific to the batching plant will be prepared before the Project begins. The plant will be operated in accordance with the code of practice for the concrete batching industry.
dd)	The water quality of Lake Macdonald is protected as the primary source of water supply for the coastal urban areas of Noosa and the rural towns and villages of Cooroy, Pomona, Cooran and Cooroibah	Chapter 2, section 2.2.3 Chapter 6, sections 6.3.3 and 6.3.4 Appendices B and G	The water quality of Lake Macdonald may be impacted by the lake lowering activity required for the overall Project. The lake will not be used for water supply through the Project. The proposed use for a temporary concrete batching plant will not affect the requirement for lake lowering as part of the Project. The Noosa water supply zone will continue to be supplied throughout the overall Project, which includes the temporary new use for concrete batching plant, by using the existing alternative water sources. An EMP that incorporates the plant and addresses water quality has been drafted, and a specific EMP and stormwater management plan will be prepared for the batching plant before the Project begins. The plant will be operated in accordance with the code of practice for the concrete batching industry.

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
hh)	Areas of native remnant or regrowth vegetation, including their biodiversity and habitat values are protected	Chapter 2, sections 2.4.2, 2.4.3 and 2.4.8 Figure 2-8 Chapter 9	The temporary concrete batching plant will be located in a previously disturbed area on Seqwater land. Vegetation in this area is classified as non-remnant under the Regional Ecosystem Mapping version 10.1.
ss)	For the Open Space Conservation Zone i. protected for their importance in contributing to ecological sustainability including maintenance of water quality and provision of habitat and open space linkages ii. appropriately managed to the general exclusion of development or any further subdivision of freehold lots	Chapter 2, sections 2.4.2, 2.4.3 and 2.4.8 Chapters 5-14 (impact assessments on environmental aspects of Project) Appendix B	It should be noted that the proposed location of the temporary concrete batching plant is within an area previously developed for community services and is not accessible to the public. The 'Open Space Conservation' zoning over the area may not reflect the existing land use. The temporary concrete batching plant will be in place only for the duration of construction (< 24 months) and located in a previously disturbed area with existing infrastructure. At the completion of the Project, the plant will be de-commissioned and the site reinstated to its previous use for community services, subject to town planning requirements if necessary. An EMP that incorporates the plant has been drafted for the Project, and management plans specific to the batching plant will be prepared before the Project begins. The plant will be operated in accordance with the code of practice for the concrete batching industry.
Specific outcomes for the Cooroy and Lake Macdonald Locality (Division 16)			
O1	Uses are located, designed and operated to avoid significant adverse changes to the light, air quality, noise, accessibility or other conditions enjoyed by users of associated, adjoining or nearby uses	Chapter 2, sections 2.4.2 and 2.4.7 Chapters 11, 12 and 13	The concrete batching plant will be temporary (< 24 months) and located in a previously disturbed area. Hours of operation will be managed to minimise impact and the plant will be operated in accordance with the code of practice for the concrete batching industry. The temporary concrete batching plant will be managed, as part of overall construction works for the Project, to minimise impacts and avoid significant adverse changes.

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
			Some unavoidable adverse impacts may occur as part of the construction work for the Project, but these impacts will not be from operation of the temporary concrete batching plant, and are more likely to occur due to vicinity of residential properties to dam embankments, where excavators and other machinery will necessarily operate for the Project. Recreational uses of Lake Macdonald will be suspended for the duration of the overall Project (24 months) due to lake lowering for the Project and is not related to the proposed temporary use for a concrete batching plant.
O2	Important scenic vistas including those to and from Mt Cooroy, Mt Tinbeerwah and Black Mountain are protected and uninterrupted to maintain aesthetic and cultural values of the natural landscape	Chapter 2, sections 2.4.2 and 2.4.8 Figure 2-8	The temporary concrete batching plant will be located in a previously disturbed area on Seqwater land. The proposed use will have minimal impact on the wider scenic values while in use and will not have a permanent impact on aesthetic or cultural values.
O3	The function of, and visual amenity and character surrounding the major road network, including Diamond St, Cooroy–Noosa Road, Belli Creek Road and Lake Macdonald Drive is protected and enhanced.	Chapter 2, sections 2.4.2 and 2.4.8 Figure 2-8	The temporary concrete batching plant will be located in a previously disturbed area on Seqwater land, which will be reinstated at the completion of the Project. The proposed temporary use will not significantly impact the function of Lake Macdonald Drive, though the construction work as part of the overall Project is likely to temporarily impact at times during the Project for traffic control. An EMP that incorporates the plant has been drafted for the Project, and management plans specific to the temporary batching plant will be prepared before the Project begins. The temporary concrete batching plant will be operated in accordance with the code of practice for the concrete batching industry.

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
O7	Buildings and other structures— a) are low rise and present a building height consistent with structures on adjoining and surrounding premises; b) have a maximum building height of 2 storeys; c) do not visually dominate the street, surrounding spaces or the existing skyline; d) preserve the amenity of surrounding land uses; e) respect the scale of existing vegetation; and f) respond to the topography of the site by avoiding extensive excavation and filling.	Chapter 2, sections 2.4.2 and 2.4.8 Figure 2-8	The temporary concrete batching plant has been sited on Seqwater land in a location that is resilient to potential flood impacts, while still being close to the construction area where concrete is required. As such, the proposed use will be somewhat prominent when viewed from the south, across the lake area. Nevertheless, the temporary concrete batching plant will consist only of raw material bins and batching equipment, which is likely to be trailer mounted. The facilities are likely to be 4-5 m in height, though may have one to two silos for storage of cement powder. It should be noted that the exact scale and set-out of the temporary facility will depend on the sub-contractor selected by the construction contractor, as these will be temporary facilities specified by the contractor. The proposed location avoids clearing of vegetation and is sited adjacent to the existing Noosa Water Treatment Plant infrastructure. The temporary concrete batching plant will therefore be consistent with existing nearby buildings with an industrial use. Examples of temporary concrete batching plants are shown in Figure 3-3 and Figure 3-4.
O8	Buildings and other structures are appropriately designed and sited to— a) provide amenity for users of the premises as well as preserve the visual and acoustic privacy of adjoining and nearby properties; b) preserve any existing vegetation that will buffer the proposed building from adjoining uses; c) allow for landscaping to be provided between buildings;	Chapter 2, sections 2.4.2 and 2.4.8 Figure 2-8	The temporary concrete batching plant will be located in a previously disturbed area on Seqwater land, which is adjacent to the Noosa water treatment plant. The site will be reinstated at the completion of the Project. Examples of temporary concrete batching plants are shown in Figure 3-3 and Figure 3-4.

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
	d) maintain the visual continuity and pattern of buildings and landscape elements within the street.		
O9	The site cover, gross floor area and plot ratio of buildings and other roofed structures— a) results in a building scale that is compatible with surrounding development; b) does not present an appearance of bulk to adjacent properties, roads or other areas in the vicinity of the site; c) maximises the retention of existing vegetation and allows for soft landscaping between buildings; d) allows for adequate area at ground level for outdoor recreation, entertainment, clothes drying and other site facilities; and e) facilitates onsite stormwater management and vehicular access.	Chapter 2, sections 2.4.2 and 2.4.8 Figure 2-8	The general provisions of this item are not considered relevant to the proposed temporary concrete batching plant, as the temporary use will be within an area to be used for construction of the overall Project and will be removed from the site following construction.
O18	There are no significant adverse effects on biodiversity, natural vegetation, native fauna habitat, landscape quality, water quality or cultural heritage values, including those related to— a) changes to natural drainage; b) disturbance to any of the wetland systems; c) management of landslide and fire risk; d) erosion and the transport of sediments off site; e) unmanaged public access; f) effluent disposal; g) changes to fauna habitat and behaviour; and h) disturbance of buildings and features, including natural features, of cultural heritage significance.	Chapter 2, sections 2.4.3 and 2.4.8 Chapters 5-14 (impact assessments on environmental aspects) Appendix B	The temporary concrete batching plant will be located in a previously disturbed area with existing infrastructure (i.e. adjacent to the water treatment plant). Vegetation in this area is classified as non-remnant under the Regional Ecosystem Mapping version 10.1 and assessment of the existing environment and potential impacts indicates that the batching plant is not in a high ecological value location. An EMP that incorporates the plant has been drafted for the Project, and management plans to limit potential impacts specific to the batching plant will be prepared before the Project begins. The plant will be operated in accordance with the code of practice for the concrete batching industry. At the completion of the Project, the plant will be de-commissioned and the site reinstated.

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
O24	Development does not adversely impact on the Lake Macdonald water supply	Chapter 2, sections 2.4.3 and 2.4.8 Chapter 6, sections 6.3.3 and 6.3.4 Appendices B and G	The water quality of Lake Macdonald may be impacted by the lake lowering activity required for the overall Project. The lake will not be used for water supply through the Project. The proposed use for a temporary concrete batching plant will not affect the requirement for lake lowering as part of the Project. The Noosa water supply zone will continue to be supplied throughout the overall Project, which includes the temporary new use for concrete batching plant, by using existing alternative water sources. An EMP that incorporates the plant and addresses water quality has been drafted, and a specific EMP and stormwater management plan will be prepared for the batching plant before the Project begins. The plant will be operated in accordance with the code of practice for the concrete batching industry.
O25	The number and location of access points to watercourses is controlled and managed to prevent adverse impacts on water quality in Lake Macdonald	Chapter 2, section 2.2.3 Chapter 6, section 6.3.4 Appendices B and G	The temporary concrete batching plant will not require access to the Lake Macdonald or other watercourses. An EMP that incorporates the plant and addresses water quality has been drafted, and a specific EMP and stormwater management plan will be prepared for the batching plant before the Project begins. The plant will be operated in accordance with the code of practice for the concrete batching industry.
O26	Key nodes are established and appropriately managed at the following locations and include facilities such as parking and picnic areas— a) the northern part of the lake, in the vicinity of the water treatment plant, scouts and fish hatchery; b) the western part of the lake in conjunction with the Botanic Gardens and associated picnic areas; and	Chapter 2, sections 2.2.4 and 2.4.8 Figure 2-8	Recreational uses of Lake Macdonald will be suspended and the scout camp and fish hatchery facilities will be closed and relocated for the duration of the overall Project (24 months), but this will be related to safety and available land for Project construction, not specifically for the

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
	c) the eastern part of the lake, in the vicinity of the Old Tinbeerwah School Park.		temporary concrete batching plant. The Botanic Gardens will remain open.
O27	Treatment and disposal of waste water does not have any detrimental impact on Noosa's major water storage and supply – Lake Macdonald	Chapter 2, sections 2.4.3 and 2.4.8 Chapter 6, section 6.3.4 Appendices B and G	Lake Macdonald will be largely dewatered as a requirement of the overall Project. The lake will not be used for water supply through the Project. The proposed use for a temporary concrete batching plant will not affect the requirement for lake lowering as part of the Project. The Noosa water supply zone will continue to be supplied throughout the overall Project, which includes the temporary new use for concrete batching plant, by using existing alternative water sources. An EMP that incorporates the plant and addresses water quality has been drafted, and a specific EMP and stormwater management plan will be prepared for the batching plant before the Project begins. The plant will be operated in accordance with the code of practice for the concrete batching industry. As such the batching plant will not have a detrimental impact on Noosa's major water storage and supply
Specific outcomes for the Open Space Conservation Zone in the Cooroy and Lake Macdonald Locality (Division 26)			
O89 and O90	Defines consistent and inconsistent uses	Chapter 2, section 2.4.8	The batching plant is classified as Industry Type 2 Production, alteration, repackaging and repairing, which is considered an inconsistent use with the outcomes of the Open Space Conservation Zone. However, it should be noted that the proposed location of the temporary concrete batching plant is within an area previously developed for community services and is not accessible to the public. The 'Open Space Conservation' zoning over the area may not reflect the existing land use.

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
O91	Uses on or adjacent to public open space protect, maintain and enhance the open space values	Chapter 2, sections 2.2.4, 2.4.2 and 2.4.8 Figure 2-8	The temporary concrete batching plant will be located in a previously disturbed area on Seqwater land, which is adjacent to the Noosa water treatment plant and not publicly accessible. Recreational uses of Lake Macdonald and land adjacent to the location for this use will be suspended for the duration of the overall Project (24 months), but not specifically for the batching plant. Following construction, the temporary concrete batching plant will be removed and the site reinstated to previous usage.
O92	Open space protects and buffers important wildlife corridors, riparian zones and watercourses	Chapter 2, sections 2.4.2 and 2.4.8 Figure 2-8	The temporary concrete batching plant will be located in a previously disturbed area on Seqwater land, and will not adversely impact on wildlife or wildlife buffers. There will be a buffer between the batching plant and Lake Macdonald. The plant will be constructed and operated in accordance with Australian Standards and the code of practice for the concrete batching industry.
O93	Buildings and other works are designed and sited so that they do not dominate or detract from the scenic and environmental qualities of the site and its setting	Chapter 2, sections 2.4.2 and 2.4.8 Figure 2-8	The temporary concrete batching plant has been sited on a high point in the Seqwater facility to ensure the operation is flood immune and relatively close to the construction area where concrete is required. As such, the proposed use will be somewhat prominent when viewed from the south, across the lake area. Nevertheless, the temporary concrete batching plant will be consistent with the construction works site that will be in place to deliver the Project. It should be noted that the exact scale and set-out of the temporary facility will depend on the sub-contractor selected by the construction contractor, as these will be temporary facilities specified by the contractor.

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
O94	The external colour scheme of buildings is designed to blend with the natural elements of their surroundings.	Chapter 2, sections 2.4.2 and 2.4.8 Figure 2-8	The exact nature and colouring of the temporary facility will depend on the sub-contractor selected by the construction contractor, as these will be temporary facilities specified by the contractor. It is likely that some elements of the temporary concrete batching plant will not blend in with the natural elements, but will be consistent with the construction works that it will be located within. Given that this will be a temporary use only and associated impacts of the Project in construction, departure from this specific outcome is considered acceptable.
Biodiversity Overlay – Overall Outcomes (13.7)			
a)	The natural resources of Noosa Shire are conserved including— i. land which is of scenic, cultural, historical, educational, recreational, scientific, ecological, biodiversity, economic, social or aesthetic value ii. soil or landforms such as watercourses, drainage lines, foreshores, dunes and steep slopes iii. the ecosystem health and quality of the water, land and other natural resources iv. the extent and condition of native and remnant vegetation, including ecologically important areas, wetlands and areas of significant regrowth of local origin	Chapter 2, sections 2.4.2, 2.4.3 and 2.4.8 Chapters 5-14 (impact assessments on environmental aspects) Appendix B	The temporary concrete batching plant will be located in a previously disturbed area with existing infrastructure (i.e. adjacent to the Noosa water treatment plant). Vegetation in this area is classified as non-remnant under the Regional Ecosystem Mapping version 10.1 and assessment of the existing environment and potential impacts indicates that the batching plant is not in a high ecological value location. An EMP that incorporates the temporary concrete batching plant has been drafted for the Project. Relevant management plans to limit potential impacts specific to the temporary concrete batching plant will be prepared before the Project begins, such as for control of stormwater and lighting. These management plans cannot be produced at this stage of the Project as relevant information is not yet available. Nevertheless, the temporary concrete batching plant will be operated and managed to avoid impacts on environmental values and the natural resources of Noosa Shire, through the development of an EMP and by

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
			committing to operate in accordance with the code of practice for the concrete batching industry. At the completion of the Project, the plant will be de-commissioned and the site reinstated.
b)	The terrestrial and aquatic biodiversity of native flora and fauna and their habitats is maintained	Chapters 7 and 8 Appendices G and I	An assessment of the potential impacts of the overall Project on terrestrial and aquatic flora and fauna has been undertaken and presented in this IAR. The assessment incorporated the temporary concrete batching plant. It was found that primary impacts were not associated with the temporary concrete batching plant and where appropriate mitigation measures are implemented, biodiversity will be maintained.
c)	Ecologically important areas, wildlife corridors, ecological linkages and riparian vegetation are conserved, managed, enhanced and rehabilitated to ensure the long term ecological viability, integrity and sustainability of native flora and fauna species, and to improve biodiversity, landscape stability, and resilience	Chapter 2, sections 2.4.2, 2.4.3 and 2.4.8 Figure 2-8 Chapters 7 and 8 Appendices G and I	The temporary concrete batching plant will be located in a previously disturbed area with existing infrastructure (i.e. adjacent to the water treatment plant). Most of the area around the infrastructure is grassed. Vegetation in this area is classified as non-remnant under the Regional Ecosystem Mapping version 10.1 and assessment of the existing environment indicates that the batching plant is not in a high value location and that connectivity of habitat will not be impacted. An EMP that incorporates the plant has been drafted for the Project, and management plans to limit potential impacts specific to the batching plant will be prepared before the Project begins. The plant will be operated in accordance with the code of practice for the concrete batching industry. At the completion of the Project, the plant will be de-commissioned and the site reinstated.

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
d)	Development is managed so as to avoid, or where avoidance is not practicable, minimises or mitigates the impacts upon the Shire's biodiversity values and natural resources, including— i. ecologically important areas; ii. the ecological values of water catchment areas; iii. the water quality of waterways, the Noosa River system and ground and surface waters; iv. that part of the natural environment that may be environmentally harmed by vermin, pests, noxious plants or threats such as fire, development and inappropriate land management; v. vistas and scenic amenity of the landscape; vi. coastal resources and values including coastal foreshores, near shore marine environments, beaches, dunes, rocky headlands, beaches and river mouths; and vii. koala habitat areas and ecological linkages that provide for connectivity and safety for the long term viability of koala populations.	Chapter 2, sections 2.4.2, 2.4.3 and 2.4.8 Chapters 5-13 (impact assessments on environmental aspects) Appendices F to M	The temporary concrete batching plant will be located in a previously disturbed area (i.e. adjacent to the water treatment plant) to minimise potential impacts. Assessment of the existing environment indicates that the proposed site is not in a high ecological value location and potential impacts will be minimal where mitigation measures are implemented. A Draft EMP that incorporates the plant has been drafted for the Project, and management plans to limit potential impacts specific to the batching plant will be prepared before the Project begins. The plant will be operated in accordance with the code of practice for the concrete batching industry. At the completion of the Project, the temporary concrete plant will be de-commissioned and the site reinstated.
e)	The replanting or rehabilitation of degraded ecosystems and habitat is achieved	Chapter 2, section 2.4.12	Following the completion of construction, the site works area (which incorporates the temporary concrete batching plant) will be reinstated.
g)	Clearing of protected vegetation only occurs where it is reasonably necessary and in an environmentally sensitive manner that provide for suitable replacement plantings	Chapter 2, sections 2.4.2 and 2.4.8 Figure 2-8	The placement of the temporary concrete batching plant will minimise the requirement to clear vegetation. Vegetation in this area is classified as non-remnant under Regional Ecosystem Mapping and is largely grass with fruit and ornamental trees.

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Biodiversity Overlay Code – *Specific Outcomes (13.8)*			
O1	a) Environmental Protection Area or Riparian Buffer Area on the Biodiversity Overlay Maps OM1.1 to OM9.1, is retained and conserved in its present form or improved to ensure its ongoing contribution to the natural resources and biological diversity of the Noosa Shire	Chapter 2, sections 2.4.2, 2.4.8 and 2.4.12 Figure 2-8	The temporary concrete batching plant will be in a previously disturbed area within the Riparian Buffer Area. The current use of the proposed site is for Seqwater dam operations (ranger) facilities (office and storage shed) and the Noosa water treatment plant. Most of the area around the infrastructure is grassed, with few trees, which are classified as non-remnant under Regional Ecosystem Mapping. The proposed location of the plant will minimise the need to clear vegetation.
O1	b) Environmental Enhancement Area on Biodiversity Overlay Maps OM1.1 – OM9.1, is protected from the impacts of development by— i. avoiding edge effects; ii. avoiding fragmentation; and iii. maintaining vegetation in manageable and viable configurations.		The proposed temporary concrete batching plant site is not within an Environmental Enhancement Area.
O2	For the purpose of Reconfiguring a Lot new lots are only created where they minimise the fragmentation and maximise the retention of existing vegetation.	Chapter 2, section 2.2	The proposal does not include Reconfiguring a Lot.
O3	Clearing vegetation only occurs where— a) no other suitable cleared or partially cleared area is available on the premises; b) the development minimises the total footprint within which all activities, buildings, structures, driveways and other works are contained; and c) the development is located in areas of low ecological value over other areas, to the greatest extent practicable.	Chapter 2, sections 2.2.1 and 2.4.2 Figure 2-8 Chapters 5 and 8 Appendix I	The temporary concrete batching plant will be in a previously disturbed area within the Riparian Buffer Area. The current use of the proposed site is for Seqwater dam operations (ranger) facilities (office and storage shed) and the Noosa water treatment plant. This will minimise the need to clear vegetation as most of the surrounding area is grassed. Assessment of the existing environment indicates that the batching plant is not in a

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
			high ecological value location compared to the surrounding environment.
O4	Wetlands are protected from removal or degradation and any adverse impacts on wetlands are prevented, minimised or mitigated by— a) maintaining adequate separation between the wetland and any adjacent development or use; b) minimising any modification of the natural characteristics of the wetland, including the topography, surface and groundwater hydrology, water quality and flora and fauna species; c) preventing any new development within wetlands; d) minimising access to the wetland; e) minimising impacts associated with pest insect control and invasion by undesirable plant species; and f) providing for the rehabilitation and replanting of degraded wetlands.	Chapter 2, sections 2.2.1 and 2.4.2 Figure 2-8 Chapters 5, 7 and 8 Appendices G and I	The temporary concrete batching plant will be in a previously disturbed area, which will reduce potential impacts to Lake Macdonald. An EMP that incorporates the plant and addresses water quality has been drafted, and a specific EMP and stormwater management plan will be prepared for the batching plant before the Project begins. The plant will be operated in accordance with the code of practice for the concrete batching industry. As such, impacts to Lake Macdonald from the batching plant will be minimised.
O5	The biodiversity and ecosystem values of watercourses, drainage lines, wetlands and adjacent riparian zones are protected by— a) avoiding any new development in the riparian buffer area; b) retaining aquatic and terrestrial habitat in riparian zones; c) maintaining wildlife corridors along watercourses and drainage lines for native fauna movement; d) avoiding edge effects and incompatible uses in riparian zones; e) maintaining bank stability by minimising bank erosion and slumping; f) maintaining water quality by filtering sediments, nutrients and other pollutants; and	Chapter 2, sections 2.4.2, 2.4.8 and 2.4.12 Figure 2-8 Chapters 5, 7 and 8 Appendices G and I	The temporary concrete batching plant will be in a previously disturbed area within the Riparian Buffer Area. The current use of the proposed site is for Seqwater dam operations (ranger) facilities (office and storage shed) and the Noosa water treatment plant. Assessment of the existing environment indicates that the batching plant is not in a high ecological value location and that habitat and connectivity will not be significantly impacted by the batching plant. An EMP that incorporates the plant has been drafted for the Project, and management plans specific to the batching plant will be prepared before the Project begins. The plant will be operated in accordance with the code of practice for the concrete batching industry.

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	g) removing undesirable plant species and replacing them with vegetation of local origin;		Vegetation planted during the reinstatement of the site will be of local origin.
O6	Development on land adjacent to a waterway or wetland maintains an appropriate extent of public access to waterways and wetlands and minimises edge effects.	Chapter 2, sections 2.2.4 and 2.4.8 Figure 2-8 Chapter 8	Public access to the proposed location of the temporary concrete batching plant is currently restricted, due to the Seqwater water treatment and dam operations facilities at the site. Access to Lake Macdonald in the area will be restricted for the duration of the overall Project, so the establishment of the temporary concrete batching plant will not affect public access. Assessment of impacts from the Project overall indicate minimal edge effects primarily in the vicinity of the proposed stockpile locations rather than near the temporary concrete batching plant.
O7	Development is designed, constructed and operated to— a) avoid adverse impacts on koalas and koala habitat; b) provide measures to assist the survival of koala populations in the area to mitigate any potential threats or risks to koalas; c) provide for safe and appropriate koala movement across the landscape; and d) provide for a net gain in mature and actively regenerating koala habitat.	Chapter 2, sections 2.2.4 and 2.4.8 Figure 2-8 Chapter 8 Appendix I	The temporary concrete batching plant will be located in a previously disturbed area, which is current fenced and provides no wildlife corridor. The proposed site will minimise the need to clear vegetation as most of the surrounding area is grassed. Assessment of the existing environment indicates that the temporary concrete batching plant is not in a high value location and no koalas were found in the area during the field survey.
O8	Open space networks and ecological linkages are maintained and enhanced to provide for safe movement of fauna and viable connectivity between ecologically important areas by protecting and replanting vegetation of local origin— a) along and around watercourses, wetlands, drainage lines and ridgelines; and b) as linkages between areas of remnant vegetation,	Chapter 2, sections 2.2.4 and 2.4.8 Figure 2-8 Chapter 8 Appendix I	Assessment of the existing environment indicates that the temporary concrete batching plant is not in a high ecological value location and that habitat and connectivity will not be significantly impacted by the temporary concrete batching plant.

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	including— i. across property boundaries; ii. to areas of national park, conservation park, State forest or reserve; and iii. into adjoining local government areas.		The location of the temporary concrete batching plant in a previously disturbed area will minimise the need to clear vegetation.
O9	The scenic amenity and vegetated character of the locality and its watercourses, drainage lines, sloping land and ridgelines is retained and enhanced	Chapter 2, sections 2.4.2 and 2.4.8 Figure 2-8	The temporary concrete batching plant will be located in a previously disturbed area on Seqwater land, which is adjacent to the Noosa water treatment plant. This will assist in maintaining scenic amenity and minimise the need to clear vegetation as most of the surrounding area is grassed. The site will be reinstated at the completion of the overall Project, which is anticipated to occur over up to 24 months.
O10	Vegetation which makes a positive contribution to the streetscape or major road network is retained.	Chapter 2, sections 2.2.4 and 2.4.8 Figure 2-8 Chapter 8 Appendix I	The temporary concrete batching plant will be in a previously disturbed area. This will minimise the need to clear vegetation as most of the surrounding area is grassed. The proposed use will not affect vegetation in relation to the streetscape.
O11	Habitat trees (including dead trees) and recruitment habitat trees are protected for native fauna habitat, where practicable.	Chapter 2, sections 2.2.4 and 2.4.8 Figure 2-8 Chapter 8 Appendix I	The temporary concrete batching plant will be in a previously disturbed area. This will minimise the need to clear vegetation as most of the surrounding area is grassed. Assessment of the existing environment indicates that the temporary concrete batching plant is not in a high value location. Habitat trees will be retained and dead and cleared trees retained for site rehabilitation, where practical.
O12	Vegetation within 400m of the full ponded water within Lake Macdonald is retained.	Chapter 2, sections 2.2.4, 2.4.8 and 2.4.12 Figure 2-8	The proposed location of the temporary concrete batching plant is within 400 m of Lake Macdonald. This area has been previously disturbed and is mostly grassed around

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
		Chapter 8 Appendix I	existing infrastructure. Some non-remnant vegetation within this distance maybe removed. The site will be reinstated at the completion of the overall Project.
O13	Vegetation on steep slopes is retained and managed to avoid erosion and landslide and to protect natural resources and values.	Chapter 2, sections 2.2.4 and 2.4.8 Figure 2-8	The proposed temporary concrete batching plant location is not on a steep slope, therefore no vegetation on steep slopes will be cleared.
O14	Development is sited and designed to— a) provide adequate separation distance between the vegetation to be protected and the development to avoid disturbing, destabilising and deoxygenating any tree or altering the drainage; b) avoid traversing or fragmenting vegetation or habitats for significant flora or fauna species; and c) avoid creating barriers to faunal movement.	Chapter 2, sections 2.2.1 and 2.4.2 Figure 2-8 Chapters 5 and 8 Appendix I	The temporary concrete batching plant will be temporary and in a previously disturbed area. Most of the surrounding area is grassed and the vegetation in the area is classified as non-remnant. Assessment of the existing environment indicates that the temporary concrete batching plant is not in a high ecological value location compared to the surrounding environment and that fragmentation will not occur as a result of the overall Project. Locating the temporary concrete batching plant where there are existing facilities (which will be demolished) will avoid creating new barriers to faunal movement.
O15	Vegetation is not adversely impacted upon by earthworks and changes to the hydrological regime, including changes to ground water levels, flooding levels, run-off and tidal hydraulics.	Chapter 2, sections 2.2.1 and 2.4.2 Figure 2-8 Chapters 5, 6, 7 and 8 Appendix I	The temporary concrete batching plant will be located in a previously disturbed area. Most of the surrounding area is grassed and the vegetation in the area is classified as non-remnant. Locating the temporary concrete batching plant where there are existing facilities (which will be demolished) will minimise impacts from earthworks and changes to the hydrology. An EMP that incorporates the temporary concrete plant has been drafted for the overall Project, and a specific EMP and stormwater management plan will be prepared for the batching plant before the Project begins.

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O16	Development provides for ecologically important areas to be restored and enhanced through the following measures— a) siting landscaped areas to complement and enhance existing vegetation; b) removal of all species likely to displace native flora species or degrade fauna habitat; c) replanting and rehabilitating degraded habitat; and d) replacing any vegetation removed with suitable replacement vegetation of local origin.	Chapter 2, sections 2.2.4, 2.4.8 and 2.4.12	The proposed location of the temporary concrete batching plant will not be within an ecologically important area, as it is within a previously disturbed area used for community services. The site will be reinstated at the completion of the overall Project, which is anticipated to occur over a period of up to 24 months. The location of the temporary concrete batching plant will not be suitable for replanting for ecological purposes, given the existing industrial type of use and lack of faunal connectivity with other areas.
O17	Fire management measures are adopted based on ecological principles, which— a) maintain and enhance biodiversity; b) minimise threat of fire to the natural environment, life and property; and c) provide for effective use and maintenance of buildings and structures.	Chapter 4 Appendix B	The temporary concrete batching plant will be located away from bushland areas and should have minimal risk of fire damage. No clearing of vegetation for fire management will be necessary. Additionally, the proposed use should not increase the risk of fire. A draft EMP has been prepared for the Project and an Emergency Plan will be developed. Specific environmental and emergency management plans will be developed for the temporary concrete batching plant before the overall Project begins to minimise potential impacts and provide for effective use.
O18	Clearing protected vegetation does not involve— a) the removal of vegetation in ecologically important areas; b) removal of vegetation or habitat for fauna identified or referred to as requiring protection in State or Commonwealth legislation; c) removal of vegetation located on a prominent hillside, slope or ridgeline; d) vegetation within 400 metres of the full level of ponded water within Lake Macdonald;	Chapter 2, sections 2.2.4, 2.4.8 and 2.4.12 Figure 2-8 Chapter 8 Appendix I	The proposed location of the temporary concrete batching plant is within 400 m of Lake Macdonald. This area has been previously disturbed and is mostly grassed around existing infrastructure, which will minimise the need to clear vegetation. Some non-remnant (under Regional Ecosystem Mapping version 10.1) vegetation within this distance maybe removed.

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	e) removal of riparian vegetation; f) vegetation which is or is capable of forming or contributing to a buffer between different land uses; g) vegetation which is or is capable of forming or contributing to a visual buffer or a buffer against pollution, light spillage or noise; h) vegetation which contributes to scenic amenity or landscape quality; i) vegetation the clearing of which may cause or contribute to erosion or slippage.		The site will be reinstated at the completion of the overall Project with vegetation of local origin in areas that were cleared.
O19	Clearing protected vegetation does not increase the likelihood of or result in adverse impacts on— a) remnant vegetation of local origin, classified as remnant of concern regional ecosystem or remnant endangered regional ecosystem or is vegetation located in a wetland; b) the diversity of flora or fauna species supported or likely to be supported by the vegetation community; c) a flora or fauna community or individual species which has conservation status in State or Commonwealth legislation; d) hydrology of an area or upon a hydrologically-sensitive plant community such as heathland, sedgeland, melaleuca forest or mangrove forest; e) a water catchment area or water quality; f) vegetation which has cultural heritage values	Chapter 2, sections 2.2.1, 2.4.2 and 2.4.12 Figure 2-8 Chapters 5, 6, 7 and 8 Appendices G and I	Clearing of vegetation for the temporary concrete batching plant will be minimised by its location, which is in a previously disturbed area for water treatment plant and dam operations infrastructure. Vegetation in this area is classified as non-remnant (Regional Ecosystem Mapping version 10.1) and assessment of the existing environment (terrestrial and aquatic ecology and water quality) indicates that the temporary concrete batching plant is not in a high ecological value location and potential impacts will be minimal where mitigation measures are implemented.
State Code 16 – Table 16.2.2			
PO1	Clearing and adverse impacts of clearing do not occur unless the application has demonstrated that the clearing and the adverse impacts of clearing have been:	Chapter 2, sections 2.2.1, 2.4.2 and 2.4.12 Figure 3-1	Clearing of vegetation for the temporary concrete batching plant will be minimised by its location, which is in a previously disturbed area for water treatment plant and dam operations infrastructure.

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
	1. reasonably avoided; or 2. reasonably minimised where it cannot be reasonably avoided.	Chapters 5 and 8 Appendix I	Regional Ecosystem Mapping v10.1 shows that vegetation in the vicinity of the proposed temporary concrete batching plant location is classified as Category X – non-remnant (Figure 3-2). The site will be reinstated at the completion of the Project.
PO2	Clearing is consistent with any notice requiring compliance on the land subject to the development application, unless a better environmental outcome can be achieved.	Chapter 2, sections 2.2.1, 2.4.2 and 2.4.12 Figure 3-1 Chapters 5 and 8 Appendix I	Clearing of vegetation for the temporary concrete batching plant will be minimised by its location, which is in a previously disturbed area for water treatment plant and dam operations infrastructure. Regional Ecosystem Mapping v10.1 shows that vegetation in the vicinity of the proposed temporary concrete batching plant location is classified as Category X – non-remnant (Figure 3-2). The site will be reinstated at the completion of the Project.
PO3	Clearing is consistent with vegetation management requirements for particular regulated areas unless a better environmental outcome can be achieved.	Chapter 2, sections 2.2.1, 2.4.2 and 2.4.12 Figure 3-1 Chapters 5 and 8 Appendix I	Clearing of vegetation for the temporary concrete batching plant will be minimised by its location, which is in a previously disturbed area for water treatment plant and dam operations infrastructure. Regional Ecosystem Mapping v10.1 shows that vegetation in the vicinity of the proposed temporary concrete batching plant location is classified as Category X – non-remnant (Figure 3-2). The site will be reinstated at the completion of the Project.
PO4	Clearing of a legally secured offset area: 1. is consistent with the offset delivery plan; or agreement for the offset area on the land subject to the development application; or 2. only occurs if an additional offset is provided that is consistent with the Environmental Offsets Act	Chapter 2, sections 2.2.1, 2.4.2 and 2.4.12 Chapters 5 and 8 Appendix I	The proposed temporary concrete batching plant is not located in a legally secured offset area.

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	2014 and the relevant policy in the Queensland Environmental Offsets Policy, Department of Environment and Heritage Protection, 2014.		
State Code 16 – Table 16.2.3			
PO7	Clearing maintains the current extent of vegetation associated with any natural wetland to protect: 1. bank stability by protecting against bank erosion 2. water quality by filtering sediments, nutrients and other pollutants 3. aquatic habitat; and 4. terrestrial habitat.	Chapter 2, sections 2.2.1, 2.4.2 and 2.4.12 Figure 3-1 Chapters 5 and 8 Appendix I	The temporary concrete batching plant will be located in a previously disturbed area that is primarily grassed with few trees or shrubs (Figure 3-2) to minimise potential vegetation clearing. Trees adjacent to Lake Macdonald will be retained where possible, and the site will be reinstated at the completion of the Project. A draft EMP has been prepared for the Project as whole, and a site-specific EMP will be prepared for the temporary batching plant before the Project commences. The EMP will incorporate soil erosion and sediment control measures to minimise potential impacts to the waterbody.
PO11	Clearing maintains the current extent of vegetation associated with any watercourse or drainage feature to protect: 1. bank stability by protecting against bank erosion 2. water quality by filtering sediments, nutrients and other pollutants 3. aquatic habitat; and 4. terrestrial habitat.	Chapter 2, sections 2.2.1, 2.4.2 and 2.4.12 Figure 3-1 Chapters 5 and 8 Appendix I	The temporary concrete batching plant will be located in a previously disturbed area that is primarily grassed with few trees or shrubs (Figure 3-2) to minimise potential vegetation clearing. Trees adjacent to Lake Macdonald (Six Mile Creek) will be retained where possible, and the site will be reinstated at the completion of the Project. A draft EMP has been prepared for the Project as whole, and a site-specific EMP will be prepared for the temporary batching plant before the Project commences. The EMP will incorporate soil erosion and sediment control measures to minimise potential impacts to the waterbody.
PO16	In consideration of vegetation on the land subject to the development application and on adjacent land, sufficient vegetation is retained to maintain ecological	Chapter 2, sections 2.2.1, 2.4.2 and 2.4.12 Figure 3-1	The temporary concrete batching plant will be located in a previously disturbed area that is primarily grassed with few trees or shrubs (Figure 3-2) and the site will be reinstated at the completion of the Project. Nearby areas of remnant

APPROVAL / PERMIT REFERENCE	INFORMATION / OUTCOME REQUIRED FOR APPROVAL	IAR SECTION WITH RELEVANT INFORMATION	SUMMARY
	processes and remains in the landscape despite threatening processes.	Chapters 5 and 8 Appendix I	vegetation will not be affected by the Project, and ecological processes are unlikely to significantly impacted.
PO20	Clearing does not result in: 1. accelerated soil erosion including, but not limited to – mass movement, gully erosion, rill erosion, sheet erosion, tunnel erosion, stream bank erosion, wind erosion, or scalding; and 2. any associated loss of chemical, physical or biological fertility – including, but not limited to water holding capacity, soil structure, organic matter, soil biology, and nutrients, within or outside the land the subject of the development application.	Chapter 2, sections 2.2.1, 2.4.2 and 2.4.12 Figure 3-1 Chapters 5 and 8 Appendix I	The temporary concrete batching plant will be located in a previously disturbed area that is predominantly covered by grass with few trees or shrubs (Figure 3-2) and the site will be reinstated at the completion of the Project. As such, clearing is expected to be minimal and is unlikely to accelerate soil erosion or impact soil fertility. A draft EMP has been prepared for the Project as whole, and a site-specific EMP will be prepared for the temporary batching plant before the Project commences. The EMP will incorporate soil erosion and sediment control measures.
PO22	Clearing does not contribute to or accelerate land degradation through waterlogging, or through the salinisation of groundwater, surface water or soil.	Chapter 2, sections 2.2.1, 2.4.2 and 2.4.12 Figure 3-1 Chapters 5 and 8 Appendix I	The temporary concrete batching plant will be located in a previously disturbed area that is predominantly covered by grass with few trees or shrubs (Figure 3-2) and the site will be reinstated at the completion of the Project. As such, clearing is expected to be minimal and is unlikely to contribute to lad degradation or salinisation.
PO23	Clearing maintains the current extent of endangered regional ecosystems and of concern regional ecosystems.	Chapter 2, sections 2.2.1, 2.4.2 and 2.4.12 Figure 3-1 Chapters 5 and 8 Appendix I	Regional Ecosystem Mapping v10.1 shows there are no endangered or of concern regional ecosystems in the vicinity of the proposed temporary concrete batching plant location (Figure 3-2).
PO24	Clearing maintains the current extent of essential habitat.	Chapter 2, sections 2.2.1, 2.4.2 and 2.4.12 Figure 3-1	There is no essential habitat mapped in the vicinity of the proposed temporary concrete batching plant location.

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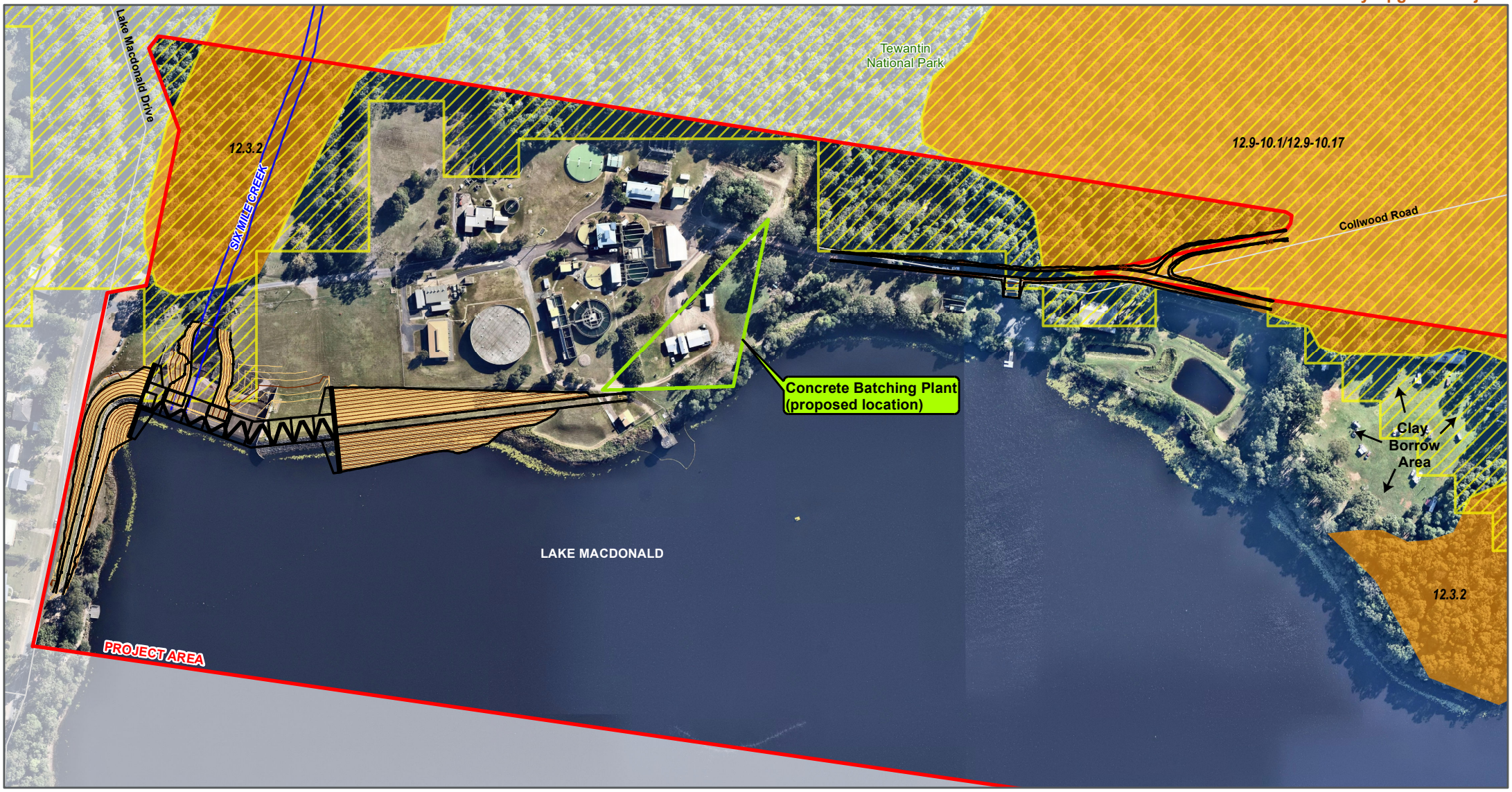
		Chapters 5 and 8 Appendix I	
PO27	Clearing does not result in, or accelerate, disturbance of acid sulphate soils or changes to the hydrology of the location that will result in either of the following: 1. aeration of horizons containing iron sulphides; or 2. mobilisation of acid or metals.	Chapter 2, sections 2.2.1, 2.4.2 and 2.4.12 Figure 3-1 Chapter 6 Appendices G and H	Assessment indicates that acid sulphate soils are not present in the vicinity of the proposed temporary concrete batching plant location. Furthermore, clearing of vegetation for the plant will be minimised by locating it in a previously disturbed area for water treatment plant and dam operations infrastructure. As such, any clearing for the temporary concrete batching plants is unlikely to result in the disturbance of acid sulphate soils or the mobilisation of acid or metals.

FIGURE 3-2: PROPOSED LOCATION OF TEMPORARY CONCRETE BATCHING PLANT



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SOURCES:
1. Localities, Roads, LGA, Waterways, Waterbody, Protected Areas © QLD Spatial Catalogue, State of Queensland (Department of Natural Resources, Mines and Energy) 2018
2. Basemap © Nearmap, 2018
3. Regulated vegetation management map v 2.8 @ State of Queensland (Department of Natural Resources, Mines and Energy) 2018

seqwater WATER FOR LIFE

LEGEND

- Local Roads
- 1 m Contour Interval Line
- 0.25 m Contour Interval Line
- Upgraded Dam Layout (after construction)
- Project Area
- Concrete Batching Plant (proposed location)
- Koala Habitat

Regional Ecosystems

- Of Concern - Dominant

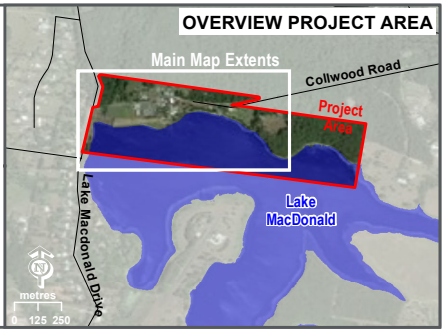

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Figure 3-3: Temporary concrete batching plant example 1

Figure 3-4: Temporary concrete batching plant example 2