Australian Government Department of the Environment and Energy

# APPROVAL

# Six Mile Creek Dam Safety Upgrade, Queensland (EPBC 2017/8078)

This decision is made under sections 130(1) and 133(1) of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*. Note that section 134(1A) of the **EPBC Act** applies to this approval, which provides in general terms that if the approval holder authorises another person to undertake any part of the action, the approval holder must take all reasonable steps to ensure that the other person is informed of any conditions attached to this approval, and that the other person complies with any such condition.

### Details

Person to whom the approval is granted (approval holder)	Queensland Bulk Water Supply Authority (trading as Seqwater)
ACN or ABN of approval holder	ABN 75 450 239 876
Action	To upgrade the Six Mile Creek Dam, Queensland. [See EPBC Act referral 2017/8078]

## **Proposed Approval decision**

My decision on whether or not to approve the taking of the action for the purposes of the controlling provision for the action is as follows.

## **Controlling Provisions**

Listed Threatened Species and C	ommunities
Section 18	Approve
Section 18A	Approve

# Period for which the approval has effect

This approval has effect until 30 June 2035.

### Decision-maker

Name and position	Andrew McNee Assistant Secretary of Assessments and Governance Branch Department of the Environment and Energy
Signature	g. and Lee
Date of decision	7 November 2019

# **Conditions of approval**

This approval is subject to the conditions under the EPBC Act as set out in ANNEXURE A.

## ANNEXURE A - CONDITIONS OF APPROVAL

#### Part A – Conditions specific to the action

- 1. The approval holder must:
  - a) not undertake construction outside the project area
  - b) not undertake clearing outside the clearing extent
  - c) not undertake the lake drawdown between 1 September and 28 February
  - d) not undertake the lake drawdown in a manner that exceeds bankfull height.
- 2. Prior to the **commencement of the action**, and to inform the Adaptive Management Plan required under condition three (3), the approval holder must :
  - a. identify and map habitat of protected matter(s) within Lake Macdonald and downstream in Six Mile Creek
  - b. develop trigger levels and specify limits at which to initiate adaptive management of the lake drawdown and construction activities, for water quality parameters including (but not limited to) temperature, pH, dissolved oxygen, turbidity, total suspended solids, nitrogen and phosphorus.

#### Adaptive Management Plan

- 3. For the protection of protected matter(s) within Lake Macdonald and downstream in Six Mile Creek, the approval holder must submit an Adaptive Management Plan for the Minister's approval. The approval holder must not commence the action until the Adapative Management Plan has been approved by the Minister in writing. The approved Adaptive Management Plan must be implemented for the duration of the action.
- 4. The Adaptive Management Plan must be reviewed by an independent expert in relation to each of the protected matter(s). The review must be provided to the Department at the time the Adaptive Management Plan is submitted for the Minister's approval.
- 5. The Adaptive Management Plan must be consistent with the **Department's** *Environmental Management Plan Guidelines (2014)*, and must include:
  - a. details of how the construction and lake drawdown (during both the gradual 12-week lowering scenario and the rapid release scenario) will be managed to avoid, mitigate and manage:
    - negative impacts on the habitat of protected matter(s) identified and mapped as required under condition two (2)
    - the exceedance of trigger levels to initiate adaptive management, and exceedance of specified limits to initiate a flow reduction or pause of the lake drawdown or construction until a solution is identified and implemented, for water quality parameters as required to be developed under condition two (2)
    - iii. injury and mortality of protected matter(s), including from (but not limited to) lake drawdown equipment and the temporary cofferdam.
  - details of how proposed management measures take into account relevant approved conservation advices and are consistent with the measures contained in relevant recovery plans and threat abatement plans.
  - c. details of habitat remediation measures, including (but not limited to) the remediation and establishment of habitat for protected matter(s) within Lake Macdonald and downstream in Six Mile Creek.

- d. measures to review and update the Adaptive Management Plan if **protected matter(s)**, not previously identified, are found within **Lake Macdonald** or **downstream** in **Six Mile Creek** within 10 km of the **project area**.
- e. a monitoring program, which must include:
  - the timing, frequency and location of monitoring within Lake Macdonald and downstream in Six Mile Creek, during the lake drawdown and construction, to detect potential impacts on the habitat for protected matter(s) and the exceedance of trigger levels and specified limits for water quality
  - the timing, frequency and location of monitoring within Lake Macdonald and downstream in Six Mile Creek, post lake drawdown and construction, to detect potential impacts on protected matter(s)
  - iii. the details and timing of adaptive management measures and corrective actions, if negative impacts on habitat for protected matter(s) are detected, including (but not limited to) reducing or ceasing the lake drawdown and construction
  - iv. the details and timing of adaptive management measures and corrective actions, if threshold trigger levels for water quality are exceeded, including (but not limited to) reducing or ceasing the **lake drawdown** and **construction**

*Note:* To avoid doubt, if a condition of another approval held by the approval holder requires an Adaptive Management Plan, the approval may meet the relevant requirements of both conditions by submitting a single plan.

6. All monitoring and data analysis required under the Adaptive Management Plan must be undertaken by a **suitably qualified and experienced person(s)**.

## Aquatic Fauna Salvage and Relocation Management Plan

- 7. For the protection of protected matter(s) that are subject to salvage and relocation, the approval holder must submit an Aquatic Fauna Salvage and Relocation Management Plan for the Minister's approval. The approval holder must not commence the action until the Aquatic Fauna Salvage and Relocation Management Plan has been approved by the Minister in writing. The approved Aquatic Fauna Salvage and Relocation Management Plan must be implemented for the duration of the action.
- 8. The Aquatic Fauna Salvage and Relocation Management Plan must be reviewed by an independent expert in relation to each of the protected matter(s). The review must be provided to the Department at the time the Aquatic Fauna Salvage and Relocation Management Plan is submitted for the Minister's approval.
- 9. The Aquatic Fauna Salvage and Relocation Management Plan must be consistent with the **Department's** *Environmental Management Plan Guidelines (2014)*, and must include:
  - a. details of how proposed management measures take into account relevant approved conservation advices and are consistent with the measures contained in relevant recovery plans and threat abatement plans
  - b. details of risk assessments and risk management measures to be undertaken and implemented for protected matter(s) at each proposed relocation site prior to the commencement of the lake drawdown (including but not limited to the risk of disease, translocation of aquatic weeds and pests, and risks to the health and safety of aquatic fauna during capture and transport)
  - c. detailed methodologies for the **salvage and relocation** operations, including (but not limited to) associated equipment for each species, which demonstrate the application of best practice and species specific methods for the **salvage and relocation** of the **protected matter(s)**.

- d. Details of surveys and monitoring, including:
  - i. to assess the suitability and carrying capacity of all proposed **relocation sites** prior to the **lake drawdown**
  - ii. on a monthly basis at all relocation sites for 12 months after week four (4) of the lake drawdown schedule, to assess the long-term success of the salvage and relocation operation
  - iii. on a monthly basis at Lake Macdonald for 12 months commencing on the final date of the salvage and relocation of the protected matter(s) back into Lake Macdonald (Mary River Cod only), to assess the long-term success of the salvage and relocation operation.

*Note:* To avoid doubt, if a condition of another approval held by the approval holder requires an Aquatic Fauna Salvage and Relocation Management Plan, the approval may meet the relevant requirements of both conditions by submitting a single plan.

- 10. During salvage and relocation of protected matter(s), the approval holder must ensure that:
  - a. no protected matter(s) other than the Australian Lungfish, Mary River Cod, Mary River Turtle, and White-throated Snapping Turtle are relocated
  - b. the **Department** is notified within three (3) **business days** if any **Mary River Turtle** or **Whitethroated Snapping Turtle** individuals are identified during **salvage and relocation** operations
  - c. no Mary River Cod or Australian Lungfish are relocated to Tinana Creek or Obi Obi Creek
  - d. the Mary River Cod is the only protected matter that may be temporarily relocated (until Lake Macdonald is deemed suitable for restocking by a suitably qualified and experienced person). All other protected matter(s) including (but not limited to) the Australian Lungfish, must be permanently relocated
  - e. temporary relocation of the Mary River Cod can only be to the Gerry Cook Fish Hatchery, or other location that is approved by the Queensland Department of Agriculture and Fisheries prior to the commencement of the lake drawdown
  - f. no Australian Lungfish is relocated to farm dams.

#### **Residual Significant Impacts**

- 11. Within six (6) months after the completion of all monitoring required under both conditions five (5) and nine (9), the approval holder must undertake a Significant Impact Assessment (in accordance with the Significant Impact Guidelines 1.1) to determine if there are any residual significant impacts to each protected matter(s) as a result of the lake drawdown, construction, and relocation operations. The assessment must be undertaken by a suitably qualified and experienced person(s) and reviewed by an independent expert. The assessment must have regard to approved conservation advices, recovery plans and threat abatement plans, and also include an assessment and evaluation of:
  - a. the effectiveness and success of the Adaptive Management Plan and of the **lake drawdown** and **construction** to avoid, mitigate and manage impacts to **protected matter(s)**
  - the effectiveness and success of the Aquatic Fauna Salvage and Relocation Management Plan, and salvage and relocation activities to avoid, mitigate and manage impacts to protected matter(s).
- 12. The Significant Impact Assessment and independent review required under condition 11 must be made publicly available on the **website** within nine (9) months after the completion of monitoring required under both conditions five (5) and nine (9), and be provided to the **Minister** within five (5) **business days** of being **published**.
- 13. If the **Minister** determines that there is a residual significant impact on any **protected matter(s)**, the **Minister** may (in writing) require the approval holder to submit an Offset Plan in accordance

with EPBC Act Environmental Offsets Policy (October 2012) and the **Department's** Environmental Management Plan Guidelines (2014), for the **Minister's** approval. The **Minister** may request that the plan be prepared or reviewed by a person designated or agreed to by the **Minister** within a specified timeframe. If the **Minister** approves the Offset Plan, the approved Offset Plan must be implemented.

# Part B – Standard administrative conditions

### Notification of date of commencement of the action

- 14. The approval holder must notify the **Department** in writing of the date of **commencement of the action**, within 10 **business days** after the date of **commencement of the action**.
- 15. If the **commencement of the action** does not occur within five (5) years from the date of this approval, then the approval holder must not **commence the action** without the prior written agreement of the **Minister**.

### **Compliance records**

- 16. The approval holder must maintain accurate and complete compliance records.
- 17. If the **Department** makes a request in writing, the approval holder must provide electronic copies of **compliance records** to the **Department** within the timeframe specified in the request.

Note: Compliance records may be subject to audit by the **Department** or an independent auditor in accordance with section 458 of the **EPBC Act**, and or used to verify compliance with the conditions. Summaries of the result of an audit may be published on the **Department**'s website or through the general media. Section 142 of the **EPBC Act** requires an approval holder to comply with conditions attached to an approval. Penalties may apply to approval holders who contravene conditions. The **EPBC Act** places a duty upon persons to provide accurate information in response to a requirement attached to the **EPBC Act**.

### Preparation and publication of plans

18. The approval holder must:

- a. submit plans electronically to the Department for approval by the Minister;
- b. publish each plan on the website within 10 business days of the date the plan is approved by the Minister or of the date a revised action management plan is submitted to the Minister, unless otherwise agreed to in writing by the Minister;
- c. exclude or redact **sensitive ecological data** from **plans** published on the **website** or provided to a member of the public; and
- d. keep **plans** published on the **website** until the end date of this approval.
- 19. The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under a **plan** conditioned by this approval, is prepared in accordance with the **Department's** *Guidelines for biological survey and mapped data* (2018) and submitted electronically to the **Department** in accordance with the requirements of the **plan**.

### Annual compliance reporting

- 20. The approval holder must prepare a **compliance report** for each 12 month period following the date of **commencement of the action**, or otherwise in accordance with an annual date that has been agreed to in writing by the **Minister**. The approval holder must:
  - a. publish each **compliance report** on the **website** within 60 **business days** following the relevant 12 month period;

- notify the Department by email that a compliance report has been published on the website and provide the weblink for the compliance report within five business days of the date of publication;
- c. keep all compliance reports publicly available on the website until this approval expires;
- d. exclude or redact **sensitive ecological data** from **compliance reports** published on the **website**; and
- e. where any **sensitive ecological data** has been excluded from the version published, submit the full **compliance report** to the **Department** within five (5) **business days** of publication.

Note: Compliance reports may be published on the Department's website.

#### Reporting non-compliance

- 21. The approval holder must notify the **Department** in writing of any: **incident**; non-compliance with the conditions; or non-compliance with the commitments made in **plans**. The notification must be given as soon as practicable, and no later than two (2) **business days** after becoming aware of the **incident** or non-compliance. The notification must specify:
  - a. any condition which is or may be in breach;
  - b. a short description of the incident and/or non-compliance;
  - c. the location (including co-ordinates), date and time, to the extent that these can be determined, of the **incident** and/or non-compliance; and
  - d. details of any corrective measures undertaken.
- 22. The approval holder must provide to the **Department** the details of any **incident** or noncompliance with the conditions or commitments made in **plans** as soon as practicable and no later than 10 **business days** after becoming aware of the **incident** or non-compliance, specifying:
  - a. any corrective action or investigation which the approval holder has already taken or intends to take in the immediate future;
  - b. the potential impacts of the incident or non-compliance; and
  - c. the method and timing of any remedial action that will be undertaken by the approval holder.

#### Independent audit

- 23. The approval holder must ensure that **independent audits** of compliance with the conditions are conducted for each 12 month period following the date of **commencement of the action**, or otherwise in accordance with an annual date that has been agreed to in writing by the **Minister**.
- 24. For each independent audit, the approval holder must:
  - a. provide the name and qualifications of the **independent auditor** and the draft audit criteria to the **Department**;
  - only commence the independent audit once the audit criteria have been approved in writing by the Department; and
  - c. submit an audit report to the **Department** within the timeframe specified in the approved audit criteria.
- 25. The approval holder must publish the audit report on the **website** within 10 **business days** of receiving the **Department's** approval of the audit report and keep the audit report published on the **website** until the end date of this approval.

### **Revision of action management plans**

- 26. The approval holder may, at any time, apply to the Minister for a variation to an action management plan approved by the Minister under condition three (3) and condition seven (7), or as subsequently revised in accordance with these conditions, by submitting an application in accordance with the requirements of section 143A of the EPBC Act. If the Minister approves a revised action management plan (RAMP) then, from the date specified, the approval holder must implement the RAMP in place of the previous action management plan.
- 27. The approval holder may choose to revise an action management plan approved by the **Minister** under condition three (3) and condition seven (7), or as subsequently revised in accordance with these conditions, without submitting it for approval under section 143A of the **EPBC Act**, if the taking of the action in accordance with the RAMP would not be likely to have a **new or increased impact**.
- 28. If the approval holder makes the choice under condition 27 to revise an action management plan without submitting it for approval, the approval holder must:
  - a. notify the **Department** in writing that the approved action management plan has been revised and provide the **Department** with:
    - i. an electronic copy of the RAMP;
    - ii. an electronic copy of the RAMP marked up with track changes to show the differences between the approved action management plan and the RAMP;
    - iii. an explanation of the differences between the approved action management plan and the RAMP;
    - iv. the reasons the approval holder considers that taking the action in accordance with the RAMP would not be likely to have a **new or increased impact**; and
    - written notice of the date on which the approval holder will implement the RAMP (RAMP implementation date), being at least 20 business days after the date of providing notice of the revision of the action management plan, or a date agreed to in writing with the Department.
  - b. subject to condition 30, implement the RAMP from the RAMP implementation date.
- 29. The approval holder may revoke their choice to implement a RAMP under condition 27 at any time by giving written notice to the **Department**. If the approval holder revokes the choice under condition 27, the approval holder must implement the action management plan in force immediately prior to the revision undertaken under condition 27.
- 30. If the **Minister** gives a notice to the approval holder that the **Minister** is satisfied that the taking of the action in accordance with the RAMP would be likely to have a **new or increased impact**, then:
  - a. condition 27 does not apply, or ceases to apply, in relation to the RAMP; and
  - b. the approval holder must implement the action management plan specified by the **Minister** in the notice.
- At the time of giving the notice under condition 30, the Minister may also notify that for a specified period of time, condition 27 does not apply for one or more specified action management plans.

**Note:** conditions 27, 28, 29 and 30 are not intended to limit the operation of section 143A of the **EPBC Act** which allows the approval holder to submit a revised action management plan, at any time, to the **Minister** for approval.

#### Completion of the action

32. Within 30 days after the **completion of the action**, the approval holder must notify the **Department** in writing and provide **completion data**.

#### Part C - Definitions

In these conditions, except where contrary intention is expressed, the following definitions are used:

Action means any specified activity associated with the action including clearing, lake drawdown, construction and salvage and relocation.

Australian Lungfish means the Australia Lungfish (*Neoceratodus forsteri*) listed as a threatened species under the EPBC Act.

**Bankfull height** means the water level at which a stream, river or lake is at the top of its banks, and any further increase in water level would result in water flowing into the flood plain.

**Business day** means a day that is not a Saturday, a Sunday or a public holiday in the state or territory of the action.

**Clearing** means the cutting down, felling, thinning, logging, removing, killing, destroying, poisoning, ringbarking, uprooting or burning of vegetation (but not including weeds – see the *Australian weeds strategy 2017 to 2027* for further guidance).

**Clearing extent** means the area designated as 'Clearing Extent' bounded by the yellow dotted line on the map at <u>Appendix A.</u>

**Cofferdam** means a watertight structure, usually made of sheet piling, which encloses an area usually under water, so that it can be pumped dry to facilitate **construction**.

**Commence the action / Commencement of the action** means the first instance of any specified activity associated with the action including **clearing**, **lake drawdown**, and **construction**. **Commencement of the action** does not include minor physical disturbance necessary to:

- i. undertake pre-clearance surveys or monitoring programs;
- ii. install signage and /or temporary fencing to prevent unapproved use of the project area;
- protect environmental and property assets from fire, weeds and pests, including use of existing surface access tracks; and
- iv. install temporary site facilities for persons undertaking pre-commencement activities so long as these are located where they have no impact on the **protected matter(s)**.

**Completion data** means an environmental report and spatial information clearly detailing how the conditions of this approval have been met. The **Department's** preferred spatial data format is **shapefile**.

**Completion of the action** means all specified activities associated with the **action** have permanently ceased.

**Compliance records** means all documentation or other material in whatever form required to demonstrate compliance with the conditions of approval in the approval holder's possession or that are within the approval holder's power to obtain lawfully.

Compliance reports means written reports:

- i. providing accurate and complete details of compliance, **incidents**, and non-compliance with these approval conditions and commitments in the **plans**;
- ii. details of contingency measures or corrective actions that have been or will be implemented;
- iii. consistent with the Department's Annual Compliance Report Guidelines (2014);
- include a shapefile of any clearance of any protected matter(s), or their habitat, undertaken within the relevant 12 month period; and

v. annexing a schedule of all **plans** prepared and in existence in relation to the conditions during the relevant 12 month period.

Conservation advice means a conservation advice approved by the Minister under the EPBC Act.

**Construction** means, but is not limited to, the erection of a building, structure or infrastructure that is or is to be fixed to the ground and wholly or partially fabricated on-site; the alteration, maintenance, repair or demolition of any building or structure; preliminary site preparation work which involves breaking of the ground (including pile driving); the laying of pipes and other prefabricated materials in the ground, and any associated excavation work; but excluding the installation of temporary fences and signage.

**Department** means the Australian Government agency responsible for administering the **EPBC Act**.

Downstream means within Six Mile Creek and within 10 km downgradient of the project area.

EPBC Act means the Environment Protection and Biodiversity Conservation Act 1999 (Cth).

**EPBC Regulations** means the *Environment Protection and Biodiversity Conservation Regulations* 2000 (Cth).

Existing flow regime means the flow regime of Lake Macdonald and Six Mile Creek prior to the commencement of the action.

Giant Barred Frog means the Giant Barred Frog (*Mixophyes iteratus*) listed as a threatened species under the EPBC Act.

Habitat means areas that provide food, shelter, nesting and / or breeding areas for any protected matter(s), including both aquatic (in-stream) and riparian areas. Note that habitat may vary spatially and temporally, and information specific to the local area is likely to be most accurate. Lists of identified species habitat prepared by state and local government and non-government organisations should be consulted to assist in determining the extent of habitat.

Incident means any event which has the potential to, or does, impact on one or more protected matter(s).

**Independent audit**: means an audit conducted by an independent and **suitably qualified and experienced person(s)** as detailed in the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines* (2019).

Independent expert(s) means a person(s) that:

- a. does not have, an individual or by employment or family affiliation, any conflicting or competing interests with the approval holder; the approval holder's staff, representatives or associated persons; or the project, including any personal, financial, business or employment relationship, other than receiving payment for undertaking the role for which the condition requires an independent expert
- b. has professional qualifications relevant to the protected matter(s)
- c. is a recognised expert, supported by relevant peer reviewed publications, regarding the **protected matter(s)**
- d. has at least 7 years of experience designing and undertaking surveys relevant to the **protected matter(s)**.

Lake drawdown means the intentional draining of water from within Lake Macdonald to facilitate construction.

Lake drawdown equipment means equipment required to undertake the lake drawdown, including (but not limited to) pumping equipment.

Lake Macdonald means the area designated as 'Lake Macdonald' coloured in dark blue on the map at <u>Appendix B</u>.

Mary River Cod means the Mary River Cod (*Maccullochella mariensis*) listed as a threatened species under the EPBC Act.

Mary River Turtle means the Mary River Turtle (*Elusor macrurus*) listed as a threatened species under the EPBC Act.

Monitoring data means the data required to be recorded under the conditions of this approval.

**Minister** means the Australian Government Minister administering the **EPBC Act** including any delegate thereof.

New or increased impact means a new or increased environmental impact or risk relating to any protected matter(s), when compared to the likely impact of implementing the action management plan that has been approved by the Minister under condition six (6) and condition 11, including any subsequent revisions approved by the Minister, as outlined in the Guidance on 'New or Increased Impact' relating to changes to approved management plans under EPBC Act environmental approvals (2017).

**Plan(s)** means any of the documents required to be prepared, approved by the **Minister**, and/or implemented by the **approval holder** and published on the **website** in accordance with these conditions (includes action management plans and/or strategies).

**Project area** means the area designated as 'Project Area' bounded by the solid red line on the map at <u>Appendix A</u>.

**Protected matter(s)** means a matter protected under a controlling provision in Part 3 of the **EPBC Act** for which this approval has effect, including:

- a. Mary River Cod
- b. Australian Lungfish
- c. Mary River Turtle
- d. White-throated Snapping Turtle
- e. Giant Barred Frog.

Published means made publicly available on the approval holders website.

Recovery plans means a recovery plan made or adopted by the Minister under the EPBC Act.

Relocation site a site used to relocate any protected matter(s) during salvage and relocation activities.

Salvage and relocation means capturing any protected matter(s) from one area of habitat and transferring it to another area of habitat.

**Sensitive ecological data** means data as defined in the Australian Government Department of the Environment (2016) *Sensitive Ecological Data – Access and Management Policy V1.0.* 

**Shapefile** means location and attribute information of the action provided in an Esri shapefile format. Shapefiles must contain '.shp', '.shx', '.dbf' files and a '.prj' file that specifies the projection/geographic coordinate system used. Shapefiles must also include an '.xml' metadata file that describes the shapefile for discovery and identification purposes.

Six Mile Creek means the watercourse designated as 'Six Mile Creek' and represented by a solid blue line on the map at Appendix B.

Suitably qualified and experienced person(s) means a person who has professional qualifications, training, skills and experience related to the nominated subject matter and can give authoritative

independent assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods and/or literature.

Threat abatement plan means a threat abatement plan made or adopted by the Minister under the EPBC Act.

**Website** means a set of related web pages located under a single domain name attributed to the approval holder and available to the public.

**White-throated Snapping Turtle** means the White-throated Snapping Turtle (*Elseya albagula*) listed as a threatened species under the **EPBC Act**.

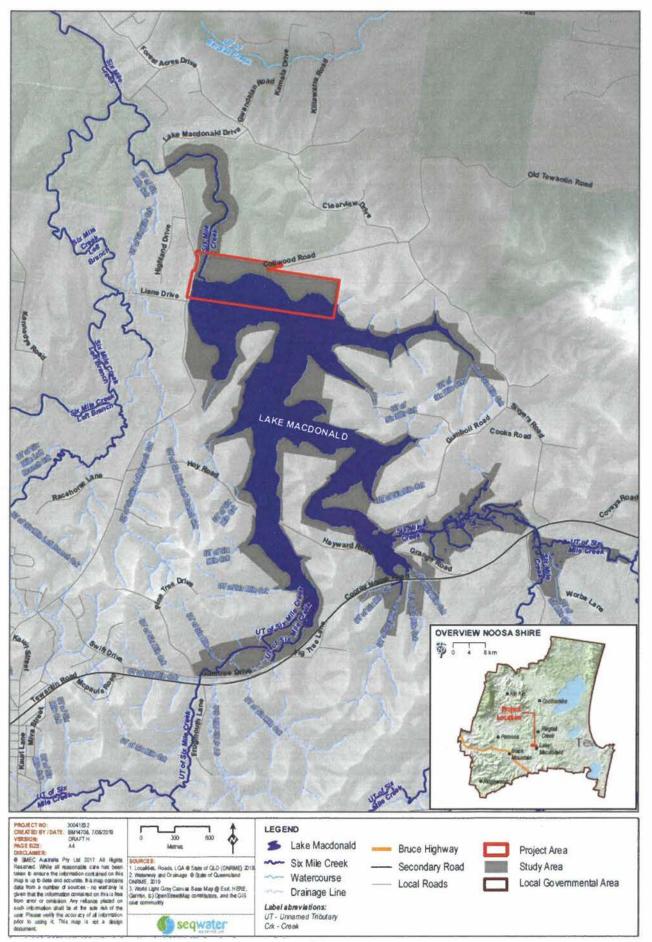
# Appendix A

Map of project area and clearing extent



## Appendix B

# Map of Lake Macdonald and Six Mile Creek



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