APPENDIX N

Consultation Report

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GLOSSARY

Table 1-1: Glossary

Term	Definition
Stakeholder	An individual, group of individuals, organisation or a political entity with a specific stake in the outcome of a decision on a policy, project or proposition of Seqwater.[1] Stakeholder relations is the term commonly used to describe engagement and proactive and reactive interactions with stakeholders.
Community	A group of people: A community may be a geographic location (community of place), a community of similar interest (community of practice), or a community of affiliation or identity (such as an industry or sporting club).[2] Community relations is the term commonly used to describe engagement and proactive and reactive interactions with communities and community members.
Engagement	A planned process with the specific purpose of working across organisations, stakeholders (including employees), customers and communities to shape the decisions or actions of Seqwater, its stakeholders, customers or communities in relation to a problem, opportunity or outcome.[3]
Communication	At its most basic level, communication is the sharing of meaning. Corporate communication is the practice of developing, cultivating and maintaining our Seqwater brand and influencing our reputation. It involves a series of planned, interconnected activities and programs to communicate and engage with employees, stakeholders, customers and communities. Engagement, education, and stakeholder, customer and community relations activities also develop, cultivate and maintain our brand and influence our reputation.
Education	Education is the facilitation of learning, or the acquisition of knowledge, skills, values, beliefs, and habits. Any experience that has a formative effect on the way we think, feel, or act may be considered educational.[4] An education program is 'a coherent set or sequence of educational activities designed and organised to achieve pre-determined learning objectives or accomplish a specific set of educational tasks over a sustained period'. Educational activities are 'deliberate activities involving some form of communication intended to bring about learning'.[5]

[1] Definition adapted from IAP2 Australasia

[2] Definition from IAP2 Australasia

[3] Definition adapted from IAP2 Australasia

[4] Wikipedia. 2016. *Education - Wikipedia, the free encyclopedia*. [ONLINE] Available at: https://en.wikipedia.org/wiki/Education. [Accessed 3 June 2016].

[5] UNESCO Institute for Statistics (2014). ISCED Fields of education and training 2013 (ISCED-F 2013): Manual to accompany the International Standard Classification of Education 2011.

EXECUTIVE SUMMARY

This consultation report covers the community consultation program conducted by SMEC and Seqwater to support the Impact Assessment Report (IAR) for the proposed Six Mile Creek Dam (Lake Macdonald) Safety Upgrade Project (the Project).

Consultation was guided by a strategy prepared in June 2018. The objectives were to:

- meet all consultation requirement for the IAR process, including regulatory requirements
- identify all stakeholders and their issues to inform good decision making
- provide information about the IAR to relevant stakeholders and community members during the preparation of the IAR
- provide opportunities for stakeholders to learn about the IAR as it progresses so they can make informed comments during the public comment period
- provide opportunities to engage with stakeholders to understand real and perceived impacts and benefits of the project
- inform the community of parts of the project they are able to influence including information on any matters that are non-negotiable and why.

The report should give the Co-ordinator General confidence that Seqwater has informed and listed to stakeholders and the community, clearly defined all social, economic and environmental impact arising from the project and established appropriate management strategies to deal with them.

Key issues raised by stakeholders during consultation related to the impacts on:

- traffic
- aquatic and terrestrial fauna
- recreation
- aquatic and terrestrial flora
- adjacent leeses
- adjacent neighbours
- downstream residents
- noise and dust
- odour from exposed organic matter when water level is lowered
- commerce.

The feedback was gathered via a methodology described below and is detailed first against the chapters of the IAR, then in a tale of key issues raised during the consultation process and finally in greater detail accompanied by a response from Seqwater and a reference to the relevant chapter of the IAR. The report then provides a summary of suggested ongoing consultation through to the final draft of the IAR.

D1 Background

D1.1 The Project

Six Mile Creek Dam, commonly referred to as Lake Macdonald, is one of several dams in South East Queensland to be upgraded as part of Seqwater's Dam Improvement Program over the next five years.

This is the first major upgrade of the dam since the walls were raised in 1980 and will involve building a new spillway and reconstructing the existing earth embankments to protect the dam against potential earthquakes and extreme flood events.

In 2012-13, Seqwater commissioned an independent review, which found improvements are needed to many of Seqwater's 26 regulated dams to meet Queensland's dam safety guidelines and bring them in line with the latest engineering standards.

Seqwater's dam safety review involved six independent expert reviewers and two years' worth of investigations into the current condition and compliance of each dam considering the requirements for flood capacity, earthquake stability, structural design and increased development downstream.

The Six Mile Creek Dam (Lake Macdonald) Safety Upgrade Project (the Project) is being progressed in order to meet guidelines for design and dam safety as regulated by the Queensland Department of Natural Resources, Mines and Energy (DNRME) and in line with the guidelines published by the Australian National Committee on Large Dams (ANCOLD). The upgrade will address current design deficiencies and allow the dam to better handle severe weather and earthquake events while maintaining water supply security.

- The Project will aim to:
  - increase the spillway capacity to safely pass all floods
  - protect the dam from overtopping in extreme flood events
  - efficiently control water flowing out of the dam to minimise flooding downstream
  - reduce risks to the dam structure during earthquakes
  - meet modern design and engineering standards
  - comply with Queensland and national dam safety guidelines.
- The Project will involve:
  - removing the old 'ogee' crest spillway
  - constructing concrete foundations for the new spillway
  - building a new 'labyrinth' spillway
  - reconstructing the existing earth embankments (dam walls).

Construction is expected to start in mid-2019, subject to approvals, and will take about two years to complete.

D1.2 Pre-IAR consultation period engagement

Stakeholder and community engagement prior to the IAR consultation phase included:

- establishment of a Community Reference Group (CRG) in 2015
- briefings with local and state government agencies
- briefings with local environment and community groups
- a project newsletter and community hotline
- a web page to provide project information
- information stands at community events, including the Noosa Festival of Water.

This consultation report captures the feedback from a broad range of stakeholders who have contributed during the planning and regulatory assessment stages of the project, including their positive and negative feedback and how their issues will be addressed in the IAR or otherwise by Seqwater.

There will be further community consultation when the draft IAR is made available for the public and government agencies to formally comment.

D1.3 Requirements for community consultation

An IAR is a streamlined version of an Environmental Impact Statement (EIS). The IAR process is used for well-defined, low-medium risk projects where the likely impacts are relatively predictable. The IAR process does not include a Terms of Reference (TOR), and public notification is only mandatory where subsequent statutory approvals require it.

Throughout the IAR consultation, all engagement activities were inclusive, respectful, meaningful and tailored to the needs of potentially impacted individuals and groups.

D2 Stakeholder consultation approach

SMEC, on behalf of Seqwater, consults stakeholders and community in accordance with best practice as outlined by the International Association for Public Participation (IAP2), in publications such as Core Values for Public Participation, (Appendix 1). Other engagement principles applied include:

- Involvement – we will identify and involve the people and organisations that are affected by the focus of the engagement
- Support – we will identify and overcome any barriers to participation
- Planning – we will articulate a clear purpose for the engagement, which is based on a shared understanding of community needs and ambitions
- Methods – we will use methods of engagement that are fit for purpose
- Working together – we will work effectively together to achieve the aims of the engagement
- Sharing information – we will share information with others with an interest in the engagement
- Feedback – we will feed back the results of the engagement to the wider community and agencies affected
- Monitoring and evaluation – we will monitor and evaluate whether the engagement achieves its purposes and meets the standards for community engagement.

As outlined in Appendix 2, Seqwater has classified the consultation for the Project as the Organisation Leads/Organisation Acts under the IAP2 Community Engagement Model.

Seqwater used IAP2's Public Participation Spectrum (Appendix 3) to select the level of stakeholder, customer or community involvement in any engagement. Differing levels of participation are legitimate depending on the objectives, timeframes, resources and interest and influence in the decision to be made. Importantly, the spectrum shows the promise being made to the public (or in Seqwater's case, the stakeholder, customer or community) at each participation level.

D2.1 Stakeholders

The IAR engagement program was targeted to residents and businesses, recreation users, environmental and interest groups, and government stakeholders. All stakeholders, customers and community members were offered opportunities, both face to face and online, to participate and provide feedback during the consultation period.

Stakeholders included:

- Dam regulator – Department of Natural Resources, Mines and Energy
- Federal, state and local government – e.g. Office of the Coordinator General, Department of Agriculture and Fisheries, Department of Environment and Energy
- Elected representatives – e.g. Member for Noosa
- Local government – mayor, councillors and officers
- Water service providers – Unitywater
- Emergency agencies – e.g. Noosa Local Disaster Management Group
- Business – e.g. Cooroy Chamber of Commerce, hotels, restaurants, tourism operators and transport operators
- Residents – neighbours living within two-kilometre radius of the dam
- Other service providers – e.g. Energex
- Education – schools, child care centres and libraries
- Community interest – e.g. resident associations and volunteer groups
- Traditional owners – Kabi Kabi First Nation
- Environment and catchment care – e.g. Noosa and District Landcare and the Mary River Catchment Coordinating Committee (MRCCC)
- Recreation – e.g. visitors, peak and industry bodies, fish stocking associations, clubs, event organisers
- Industry – e.g. Australian National Committee of Large Dams (ANCOLD)
- Media – e.g. Noosa News and the Sunshine Coast Daily

D2.2 Engagement phases

There are three phases of engagement prior to the final release of the IAR, two of which are now complete:

1. Educate – build stakeholder and community awareness and understanding about the need for the dam upgrade and what to expect (April to July 2018).
2. Consult – seek input on localised impacts to inform project planning and approvals, and identify mitigation strategies (July to Sep 2018).
3. Disclose – present the IAR and provide opportunity to review and comment (January 2018)

The engagement activities and interaction of the second phase of consultation are mapped in Figure 2-1. This methodology demonstrates the gradual increase in IAR specific engagement activities from Phase 2 (Consult) to Phase 3 (Disclose).

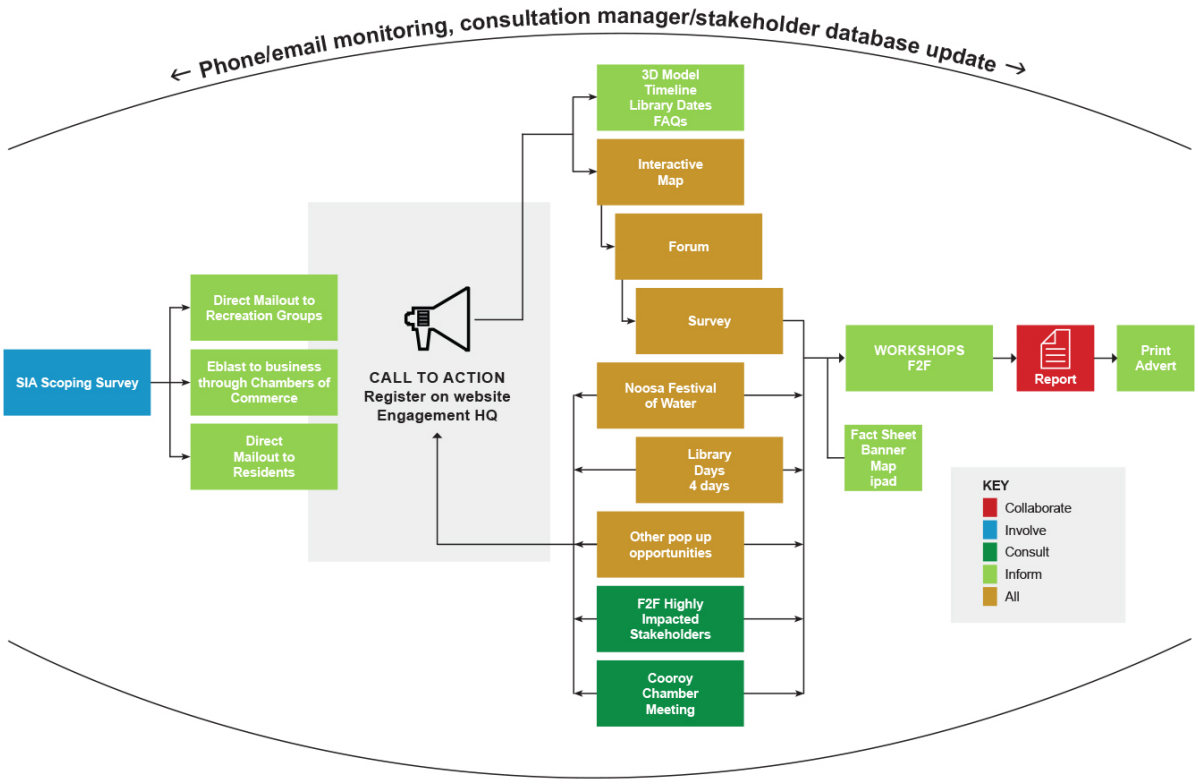

Figure 2-1 IAR engagement activity map

D2.3 Program overview

Since the commencement of the official IAR community consultation phase, a range of tactics have been used to suit the needs and interests of various stakeholders including:

- 12 Social Impact Assessment (SIA) interviews
- notifications distributed to 927 residents and businesses within a two kilometre radius of the lake
- e-news updates via direct email (distribution of 401 stakeholders)
- media release promoting IAR engagement
- a presentation to the Community Reference Group
- a presentation to the Cooroy Chamber of Commerce
- tours offered to downstream residents

- one on one meetings offered to adjoining landholders
- an information stand at the Noosa Water Festival
- an information display at the Cooroy Library
- information sessions (four in total) at the Cooroy Library to provide the opportunity for face-to-face engagement
- technical workshop with select stakeholders to develop the water lowering plan for the Project
- ongoing monitoring of the dedicated project hotline and email to collect feedback and answer questions.

D2.4 Digital activity summary

Digital engagement enabled Seqwater to connect with a wider audience and capture a greater quantity and range of feedback to inform the IAR. According to the 2016 Census, 85.7 per cent of private dwellings in the Noosa Local Government Area have access to the internet. For those with limited access to the internet at home, opportunities were offered to provide feedback face to face at the Cooroy Library. This also provided access to those with visual or other impairments.

Seqwater used EngagementHQ (yourseqwater.com.au) as the platform to host the Project's digital engagement activities. The site had a range of information resources, tools and widgets including:

- landing page with a description of the Project
- maps including an overview of the recreation closures and bathymetry of the proposed lake lowering
- 3D image of the proposed design of the new dam
- key engagement dates
- supporting information including e-updates (5) and fact sheets (3)
- a Guestbook for visitors to leave a comment
- Frequently Asked Questions (FAQs) across several categories including traffic, recreation and ecology
- an interactive impacts map to allow visitors to pin location specific issues, leave comments and/or ask questions
- four discussion forum topics
- a Business Impacts Survey
- a Community Impacts Survey.

The FAQs were co-designed with input from various stakeholders and based on past enquiries received about the Project.

D2.5 Constraints

Best practice consultation is based on good planning, relationships, trust and good communication. Some of the constraints to effective engagement have included:

- delays, uncertainties and changes to the Project configuration
- incomplete information available about specific issues with detailed studies still to be done at the time e.g. hydrology modelling.

D3 Key issues raised

The results for the Project consultation are presented in the following ways:

- a summary of key issues against the IAR chapters (see Section D4.1)
- an outline of all issues raised:
    - during baseline scoping interviews surveys
    - during face-to-face interviews
    - through online engagement activities
    - via the Project hotline and email.
- a summary of issues for participants and where those issues are addressed in the IAR.

D3.1 Summary of issues against IAR chapters

Table 3-1: Summary of issues against IAR chapters

IAR CHAPTER	ISSUES RAISED DURING CONSULTATION
Chapter 1 Introduction	Not applicable
Chapter 2 Project Description	• Need for the dam safety upgrade • Source of water for residents during construction
Chapter 3 Regulatory Approvals and Planning	No issues raised.
Chapter 4 Hazard and Risk	• Emergency Action Plan including warning systems for downstream communities
Chapter 5 MNES	Endangered species mentioned by participants: • Mary River cod • Australian lungfish • Giant barred frog
Chapter 6 Water resources	Where will water be sourced from during construction for the Noosa and Sunshine Coast regions?
Chapter 7 Water Quality	Quality of the water remaining in the lake is likely to be poor during construction.
Chapter 8 Aquatic Ecology	Impacts on aquatic ecology were raised as a major issue, including: • impact on endangered species, especially Mary River cod • control of introduced species (tilapia) during construction • restocking the lake after reinstatement • weed and pest control during lake lowering • opportunity to do aquatic weed control.
Chapter 9 Terrestrial Ecology	Impacts on terrestrial ecology were raised as an issue, including: • clearing land for construction • risk to livestock wandering into mud flats during lowering • impact on bird habitat during lowering
Chapter 10 Traffic and Transport	Traffic was raised as a major issue including: • safety for residents, especially students travelling to and from school • impact on motorists and safety at specific junctions with increased traffic

IAR CHAPTER	ISSUES RAISED DURING CONSULTATION
	• condition of local road surfaces and increased noise. • increased vehicle collisions or highway congestion
Chapter 11 Air Quality	The issue of dust was raised – especially as it pertains to trucks using unsealed roads such as Collwood Road.
Chapter 12 Noise and Vibration	Noise was raised in relation to construction and truck movements.
Chapter 13 Social and Economic	Social impacts include: • temporary closure of fish hatchery, camp grounds and rowing club on leased land • recreation closures and restrictions – on water and off water use • visual amenity • property value during lowering
Chapter 14 Cultural Heritage	No issues raised.
Chapter 15 Other Environmental Matters	No issues raised.

D3.2 Key issues raised during Social Interview Surveys

SMEC conducted 12 social interview surveys for the IAR. In general, interviewees understood the need for the Project. Many appreciated the consultation approach and the opportunity to raise issues directly with the project team. Many interviewees also raised concern that the Project (at the time of surveys) was not widely understood in the broader community. There was a general perception that community thought the level of the lake (full supply level) would increase as a result of the Project.

In the interviews, the Traveston Crossing Dam project was mentioned by over half the interviewees as an example of the possible outcome of a lack of consultation. The level of education in the community about environmental issues was also a theme.

The key issues raised during the surveys are summarised in Table 3-2, with the frequency of issues raised graphed in Figure 3-1.

Table 3-2: Key issues raised during Social interview surveys

ISSUES	INTERVIEWS IN WHICH RAISED
Social and community impacts: traffic	Noosa Shire Council, Noosa and District Landcare, Sunny Coast Trail Riders, MRCCC, Cooroy State School
Aquatic ecology: weeds	Noosa Shire Council, Noosa and District Landcare, MRCCC
Community consultation: extent	Noosa Shire Council, Noosa and District Landcare, Friends of Noosa Botanic Gardens, MRCCC, Sunny Coast Trail Riders, Cooroy State School
Land use: stock	Noosa Shire Council, Noosa and District Landcare, Sunny Coast Trail Riders
Lake drawdown level: habitat	Noosa Shire Council, Friends of the Noosa Botanic Gardens
Social and community impacts: recreation	Noosa Shire Council, Noosa and District Landcare, Sunny Coast Trail Riders, MRCCC
Social and community impacts: visual amenity	Noosa Shire Council, Friends of the Noosa Botanic Gardens

ISSUES	INTERVIEWS IN WHICH RAISED
Social and community impacts: water security	Friends of the Noosa Botanic Gardens

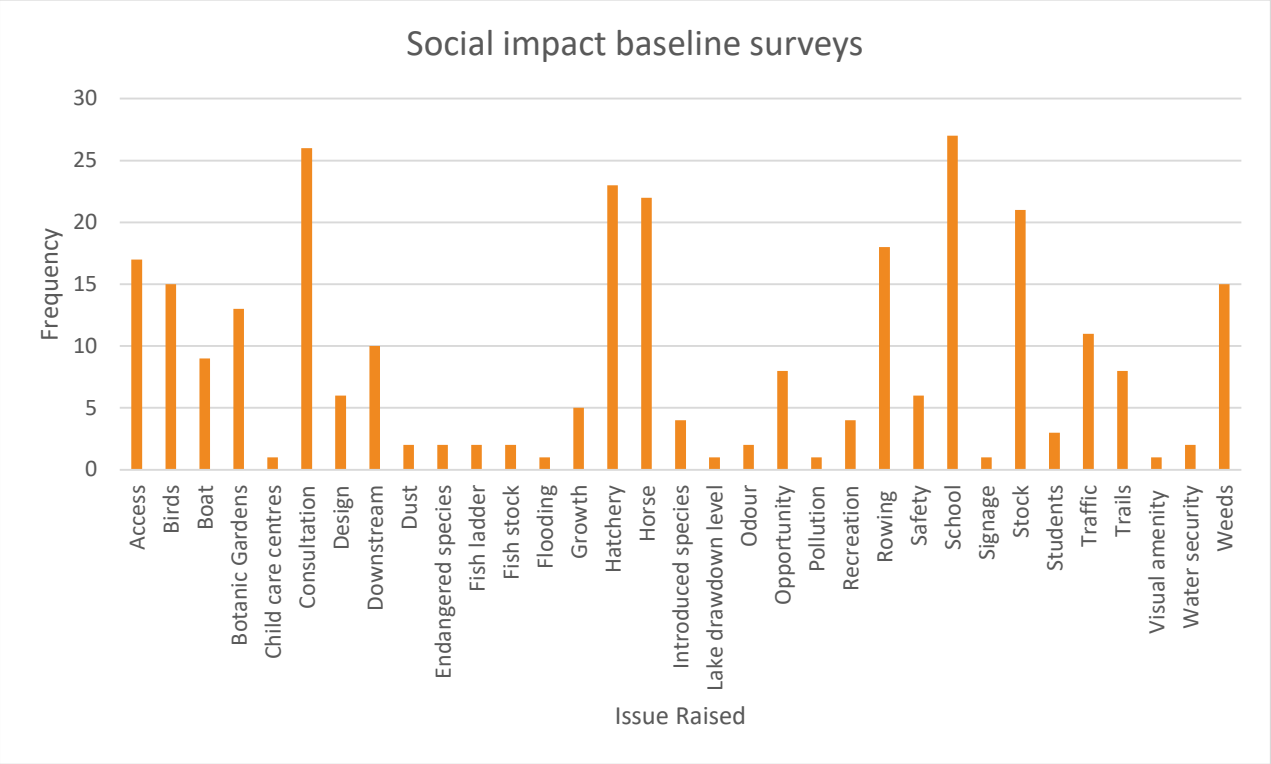

Figure 3-1: The frequency of issues raised in the Scoping Interview

D3.3 Key issues raised during information sessions (face-to-face interviews)

Eight community members attended the Cooroy Library drop-in information sessions and issues raised were varied – many were neighbour specific issues with a focus on traffic and safety on local roads and intersections and ecological impacts. Most visitors to the library expressed their appreciation for the opportunity to discuss the issues face-to-face. Many queries were responded to in person and the rest were followed up by email with input from the Project team.

The key issues raised at the library sessions are summarised in Table 3-2, with the frequency of issues raised graphed in Figure 3-2.

Table 3-3: Key issues raised during drop-in information sessions

ISSUES	RAISED BY STAKEHOLDER
Social and community impacts: traffic	Member of Cooroy Area Residents' Association (CARA), resident adjacent to proposed truck route, local resident
Social and community impacts: hours of construction	Adjacent resident, local resident
Social and community impacts: flooding	Adjacent resident, local resident
Lake drawdown level: habitat	Adjacent resident, local resident
Aquatic ecology: endangered species	Adjacent resident, local resident

ISSUES	RAISED BY STAKEHOLDER
Terrestrial ecology: endangered species	Adjacent resident, local resident
Social and community impacts: access to Camp Cooroora	Interstate visitor
Social and community impacts: water security	Member of CARA, adjacent resident, local resident

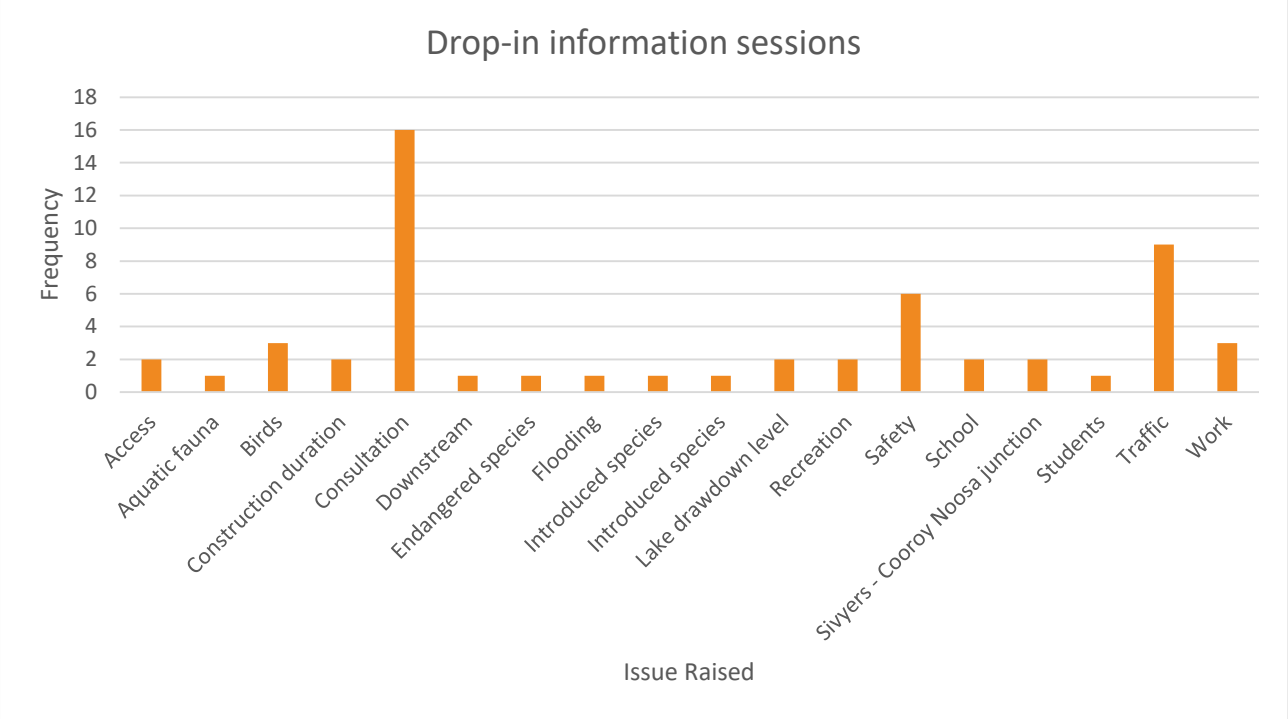

Figure 3-2: The frequency of issues raised at the library information sessions

D3.4 Key issues raised online

Most online participants were local to the Lake Macdonald or Cooroy area, with only one 'engaged' participant responding from outside the region. To understand the levels of online participation, there are three categories recognised on EngagementHQ (yourseqwater.com.au):

- Aware – visited at least one page
- Informed – clicked on an item or downloaded a document
- Engaged – contributed to a tool such as a survey or left a comment on the Interactive Impacts Map

'Aware' visitors converted to 'informed' or 'engaged' at a rate of 49 per cent. Most 'engaged' participants (72 per cent) came directly to the Lake Macdonald Dam Safety Upgrade site, suggesting these participants had knowledge of the specific landing page, compared to eight per cent arriving via the Seqwater website, eight per cent via Google search and 11.5 per cent via Facebook link.

'Aware' and 'informed' visitors also had a high level of awareness of the site (56 per cent and 50.5 per cent respectively) with a higher percentage coming from the Seqwater website (8.5 per cent and 20 per cent), Google (10 per cent and 17 per cent) and Facebook (14 per cent and 7.5 per cent). This suggests 'engaged' participants had a higher level of awareness of the Project and the engagement activities available online before they started participating.

Of the widgets and resources available, the FAQs were the most visited (30 per cent) followed by the e-updates (22 per cent) and the fact sheets (18 per cent) showing a strong curiosity by participants to better understand the Project.

The key issues raised online are summarised in Table 3-4, with the frequency of issues raised graphed in Figure 3-3, Figure 3-4 and Figure 3-5.

Table 3-4: Key issues raised online – 'engaged' participants

ISSUES	TOOL IN WHICH RAISED
Social and community impacts: traffic	Interactive map, community survey, business survey
Lake drawdown level: habitat	Interactive map, community survey
Aquatic ecology: fauna	Interactive map, community survey
Social and community impacts: recreation	Interactive map, community survey, business survey
Terrestrial ecology: fauna	Interactive map, community survey
Social and community impacts: safety	Interactive map, community survey, business survey

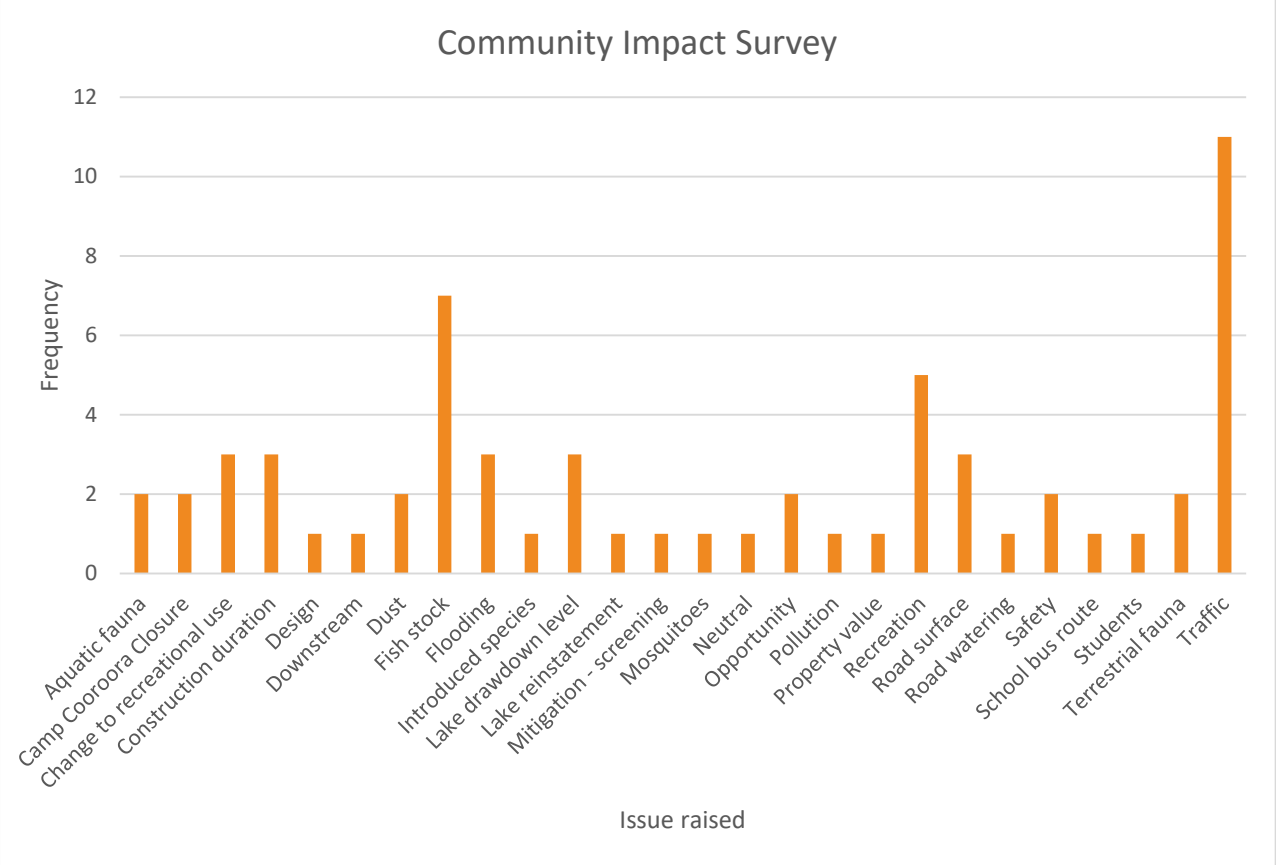

Figure 3-3: The frequency of issues raised in the Community Impact Survey

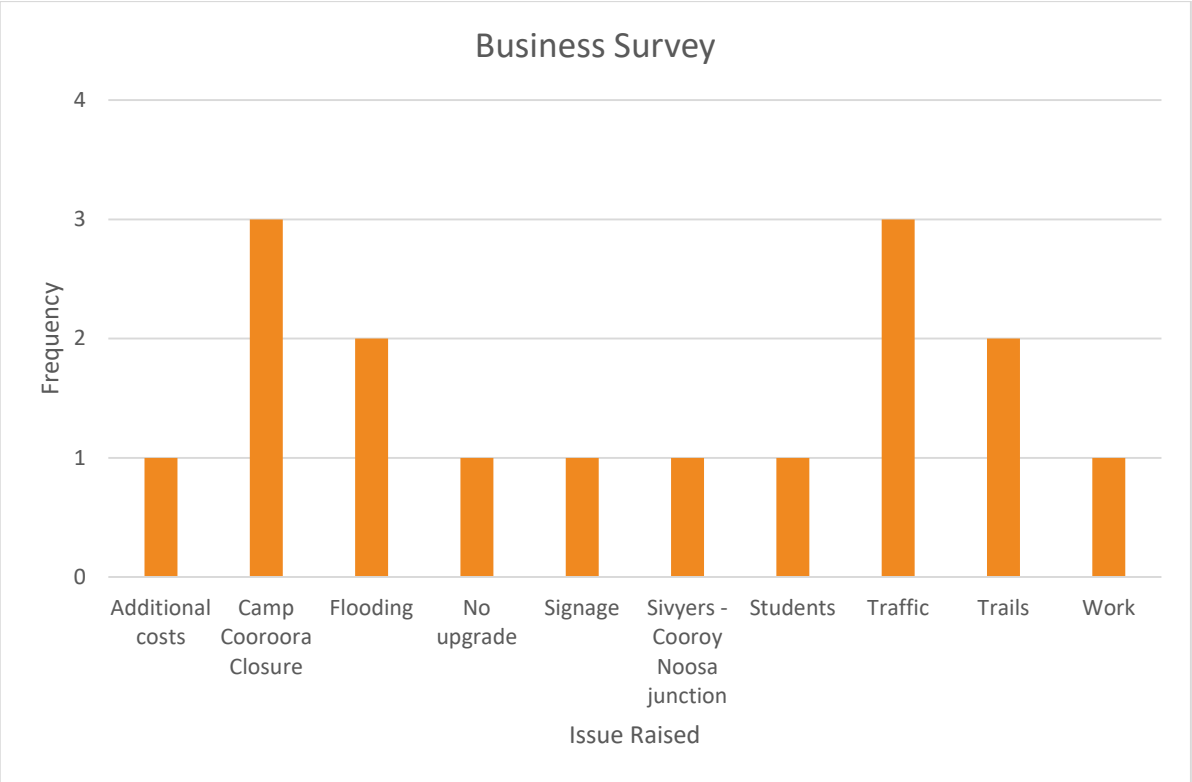

Figure 3-4: The frequency of issues raised in the Business Survey

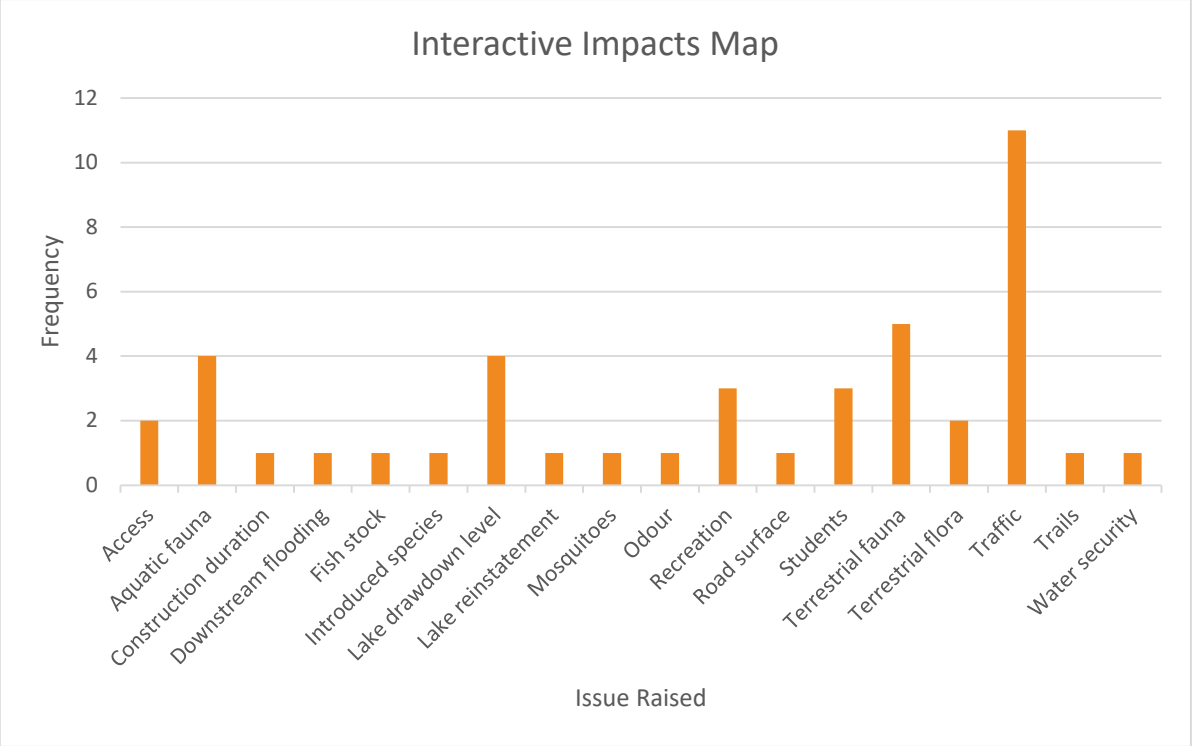

Figure 3-5: The frequency of issues raised in the Interactive Map

D3.5 Key issues raised via project channels

Most calls to the dedicated project hotline and emails to the project email address were from adjacent neighbours asking about the direct impacts to their properties, with only one query regarding recreation.

The key issues raised via phone and email are summarised in Table 3-5, with the frequency of issues raised graphed in Figure 3-6.

Table 3-5: Key issues raised via email and phone

ISSUES	RAISED BY STAKEHOLDER
Social and community impacts: traffic	Adjacent resident, local resident
Social and community impacts: noise	Adjacent resident, local resident
Aquatic ecology: endangered species, weeds	Adjacent resident, local resident, Noosa and District Landcare
Terrestrial ecology: clearing, birds	local resident
Social and community impacts: recreation	Adjacent resident, local resident, Queensland Outdoor Recreation Federation
Social and community impacts: dust	Adjacent resident, local resident

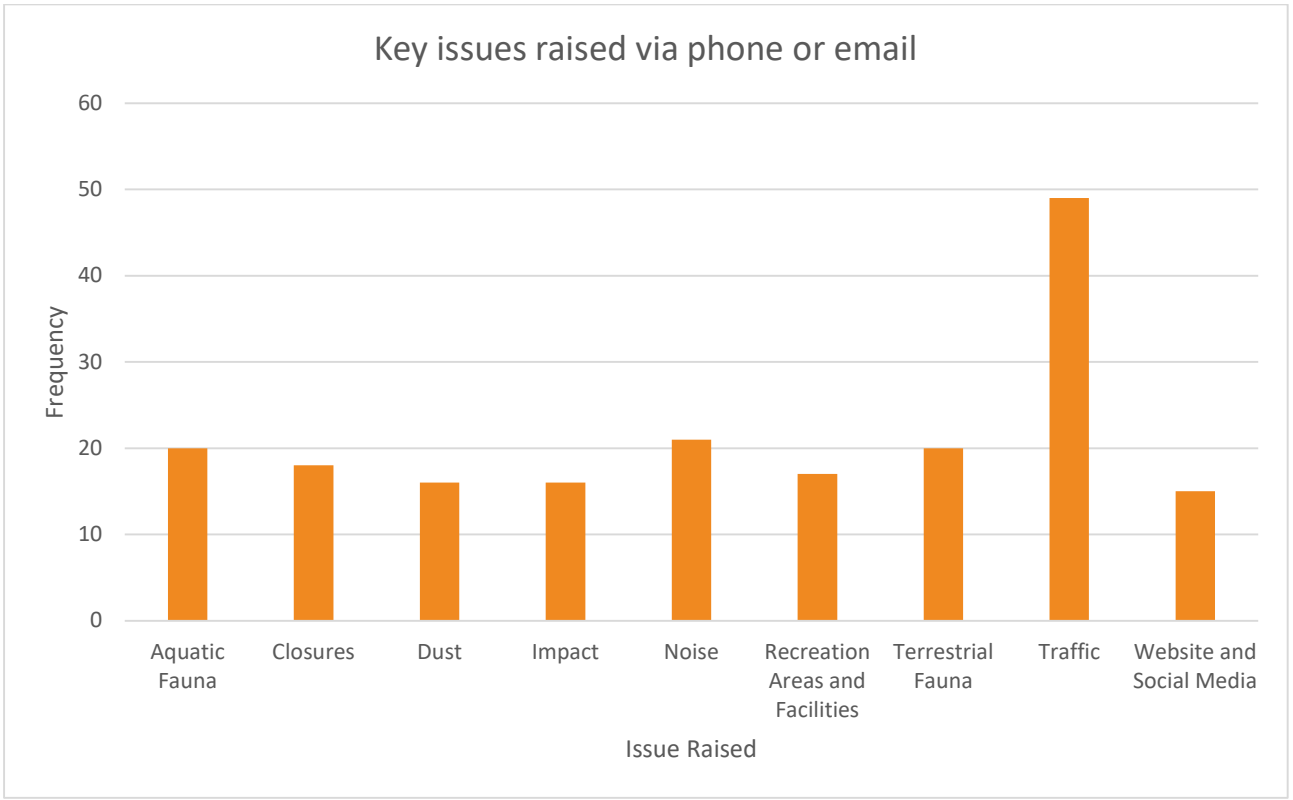

Figure 3-6: The frequency of issues raised via email and phone

D3.6 Outline of issues raised in consultation

Table 3-6: Issues raised and response measures suggested by stakeholders and Seqwater

ISSUE	RAISED BY	SUGGESTED RESPONSE (AVOID, MITIGATE, MANAGE, COMMUNICATE)	IAR REFERENCE
Traffic and transport			
1. Impact of increased truck movements along route - safety: • Truck movements will interfere with school bus routes on Lake Macdonald Drive. • Truck movements will interfere with school bus routes on Gumboil Road and Sivyers Road. • The Sivyers Road–Cooroy Noosa Road junction is a hazard and there have already been a number of traffic incidents there. Increasing traffic through this junction creates a greater possibility of an increase in number and severity of traffic incidents. • Truck movements increase risk to students getting on and off school busses and walking home on the truck routes. • Truck movements will increase risk to students attending Cooroy State School on Elm Street – two crossings and pick up zone. • Truck movements will impact on parents dropping and picking children up from day care centres – particularly Tadpoles on Lake Macdonald Drive.	Primary school principal, primary school Parents and Citizen's Association, Noosa and District Landcare, Friends of the Noosa Botanic Gardens, Noosa Shire Council, adjacent neighbours, local residents	• Seqwater will develop a traffic management plan to minimise the local traffic impacts where possible. Control measures may include traffic calming, reduced speed limits, signage and restrictions to truck movements to site during local peak traffic periods where possible. • There is no longer a bus route on Sivyers–Gumboil Road. • Reduce truck movements along Elm Street during school drop off and pick up times where possible. • Increase traffic control measures along Elm Street during school drop off and pick up times. • Improvements to the drop off facilities. • Notify adjacent neighbours in advance of increased truck movements. • Communicate increased truck movements in advance. • Driver training for truck drivers. • Reinstate roads to pre-construction conditions. • Upgrade lane markings at the Noosa-Cooroy Road/Sivyers Road intersection to Channelised Right Turn (short). • Temporary trucks running sign (T2-25) at the intersection of Lake Macdonald Drive and the Project site access for the duration of heavy vehicle operation. • Relocate 80/60 speed zone change on Lake Macdonald Drive at the Project site access intersection 200 m to north around the curve.	Chapter 2 Chapter 4 Chapter 10 Chapter 13

ISSUE	RAISED BY	SUGGESTED RESPONSE (AVOID, MITIGATE, MANAGE, COMMUNICATE)	IAR REFERENCE
• Truck movements will impact on residents using Gumboil Road for recreation – walking, jogging, dog walking, bird watching. • Motorists do not always adhere to current speed limits – Lake Macdonald Drive adjacent to the Noosa Botanic Gardens is a 60km/h zone, however local observation is this limit is exceeded frequently.		• Additional warning signs regarding heavy vehicles at one-lane two-way roads (e.g. Collwood Road, Gumboil Road), traffic controllers to manage traffic along the stretch of road.	
2. Impact of increased truck movements - noise: • Truck movements will increase noise to students attending Cooroy State School on Elm Street – particularly the buildings close to the road – prep, year one and year two, the school hall and oval. • Truck movements will increase noise to residents along traffic routes.	Primary school principal, primary school Parents and Citizen's Association, Noosa and District Landcare	• Engagement with school to identify appropriate mitigation measures.	Chapter 2 Chapter 4 Chapter 10 Chapter 13
3. Impact of increased truck movements – road condition: • Truck movements will impact road surfaces along routes on sealed roads. • Truck movements will impact road surfaces along unsealed roads.	Adjacent neighbours	• Work with council to ensure road deterioration is appropriately managed. • Dust monitoring. • Road watering will be undertaken to suppress dust and improve visibility. • Suggested by MRCCC – bitumen Collwood Road	Chapter 2 Chapter 4 Chapter 10 Chapter 13
4. Impact of increased truck movements – dust: • Track movements will increase dust on unsealed road.	CARA, Adjacent neighbours	• Dust monitoring. • Internal road watering will be undertaken to suppress dust and improve visibility.	Chapter 2 Chapter 4 Chapter 13
5. Impact of increased truck movements – visibility:	CARA	• Adequate night lighting through the provision of vehicle headlights will be provided to ensure night driving conditions are safe.	Chapter 2 Chapter 4 Chapter 10

ISSUE	RAISED BY	SUGGESTED RESPONSE (AVOID, MITIGATE, MANAGE, COMMUNICATE)	IAR REFERENCE
• Risk of trucks using roads after sunset and before sunrise raising possibility of impacts.			Chapter 13
Aquatic ecology			
6. Aquatic fauna: • Maintain water flow during construction.	MRCCC	• An Aquatic Fauna Salvage and Relocation plan will be implemented as part of the project. • The objectives of the lake lowering plan are to relocate the following (approximate percentages) from Lake Macdonald to suitable locations: – 80% of large bodied fish species (including juveniles of these species), focusing on Mary River cod and Australian lungfish – 50% of medium-sized fish – 25% of small bodied species – 50% of turtles, focusing on white-throated snapping turtles and Mary River turtles (if caught).	Chapter 5 Chapter 8 Chapter 13 Appendix xx EMP
7. Aquatic fauna: • Turtles have already been seen on the Cooroy-Noosa Road. This is likely to increase, particularly during the lowering phase. • Concern about endangered species including Mary River cod, Australian lungfish and the Giant barred frog.	Noosa and District Landcare, MRCCC, local residents, adjacent residents		
8. Aquatic weeds - opportunity: • *Cabomba caroliniana, Hygrophila costata* and *Salvinia molesta* may be reduced when the lake is lowered.	Noosa and District Landcare, Noosa Shire Council	• Work with agencies such as Landcare and National Parks and Wildlife.	Chapter 9 Chapter 13 Appendix xx EMP
9. Introduced species: • Tilapia have been found below the lake but not in the lake. There needs to be a plan to ensure tilapia do not migrate above the dam wall during construction • The design of the dam initially included a fish ladder	Noosa and District Landcare	• All aquatic pests captured during the construction/dewatering phase will be humanely euthanised. • At present there is no plan to install a fish way to provide upstream movement of fish.	Chapter 4 Chapter 13 Appendix xx EMP
10. Fish stock levels – reinstatement:	Local residents	• Engage with local fish stockists to anticipate need to restock lake.	Appendix xx EMP

ISSUE	RAISED BY	SUGGESTED RESPONSE (AVOID, MITIGATE, MANAGE, COMMUNICATE)	IAR REFERENCE
• Concern about how and when fish will be restocked to the lake			
11. Habitat – opportunities: • Potential for creation of habitat for giant barred frog (lunkers), and fish	MRCCC	• Broken down remnants of the existing dam structure may be used to create habitat. • Habitat manufactured from leftover concrete using moulds may be available.	Appendix xx EMP
Terrestrial ecology			
12. Domestic stock: • Stock are at risk of getting stuck in the mud during the lowering of the lake. • Neighbours are not likely to be happy to bear the cost of fencing along the lake.	Noosa and District Landcare, Sunny Coast Trail Riders, Adjacent neighbours	• Seqwater has offered to pay 50% of fencing costs.	Chapter 9 Chapter 13
13. Introduced species: • Deer and pigs can be found around the lake. They use the lake as a water source. There is a risk that they will get stuck in the mud during the lowering of the lake. • Deer also pose a significant risk to motorists and there have already been impacts but no fatalities. They pose a risk to trucks with the increase in truck movements during construction particularly on Lake Macdonald Drive and Cooroy – Noosa Road. • There may also be an increase in the fox population as food availability increases.	Noosa Shire Council, Noosa and District Landcare	• Work with agencies such as Landcare and National Parks and Wildlife.	Chapter 9 Chapter 13
14. Bird populations: • The variety of bird species is around the lake is around 150.	Noosa Shire Council, MRCCC, Noosa Parks Association,	• As the dam footprint will return to the same level, mid to long term impacts are not expected.	Chapter 9 Chapter 13

ISSUE	RAISED BY	SUGGESTED RESPONSE (AVOID, MITIGATE, MANAGE, COMMUNICATE)	IAR REFERENCE
• Resident birds such as cormorants and magpie geese will need to find new habitat but are likely to return once the lake is reinstated. • Migratory birds will need to find other water bodies but are likely to return once the lake is reinstated. • The mix of species of birds will change as the ecology changes e.g. more raptors are likely when water lowering occurs and fish mortality increases.			
15. Terrestrial weeds: • Are likely to increase on the mud flats during water lowering. • May be of benefit in reducing odour. • Are likely to perish when lake is reinstated. • May be brought to or from site by earthmoving equipment.	Noosa and District Landcare, Noosa Shire Council	• All vehicles must be washed down and inspected prior to arrival on site. • Weeds growing on the mud flats will be inundated as the lake is reinstated and are expected to die off.	Chapter 4 Chapter 9 Chapter 13
16. Terrestrial flora: • The Project should be undertaken with minimum possible clearing.	Local resident	• There are no plans to widen the roads. There will be some clearing in the construction site.	Chapter 9 Chapter 13
Social and Community Impacts			
17. Adjacent leeses – Scout camp: • The Scout camp (Camp Cooroora) will be closed during construction. • Scouts have donated money and in kind donations since 1984 to develop the site including clearing, earthworks, tree	Scouts Queensland, Interstate visitor	• Seqwater has offered the site managers compensation for the cost of relocating. • Once the project is complete, the ground will be reinstated so it can be used as a camp site again in the future. • It is Seqwater's intention to allow Scouts Queensland to return to the camp site once the project is complete.	Chapter 2 Chapter 13

ISSUE	RAISED BY	SUGGESTED RESPONSE (AVOID, MITIGATE, MANAGE, COMMUNICATE)	IAR REFERENCE
planting, the bunk hut and amenities block. The site was opened in 1988. • Between the 1st of April 2017 and the 31st March 2018 (Scouting financial year) the total receipts for the site totalled $58,255. The majority of this money was used for meeting site operating costs (including utilities), property and building maintenance and property improvements. • Annual surplus from any Scouting operations is used to help fund the delivery, the facilities and the training needed to support the Youth Program. • The site has return customers. While the site is closed, regular customer will go elsewhere. There is a risk they may not return to Camp Cooroora. • There is a certain amount of equipment on the site that would be surplus to needs including water pumps, a generator, fridges, bunks and mattresses. • Site managers live on site and will have to relocate. • Site managers will have to find new employment. • Seqwater intends to use some of the land as a 'borrow area', meaning soil and clay will be excavated from the grounds to use in construction.		• Scouts have requested Seqwater assist in promotion of the venue when is re-opens.	
18. Adjacent licence holders – Hatchery:	MRCCC	• Seqwater is working with the hatchery operators, the MRCCC, to temporarily relocate broodstock before construction commences.	Chapter 13

ISSUE	RAISED BY	SUGGESTED RESPONSE (AVOID, MITIGATE, MANAGE, COMMUNICATE)	IAR REFERENCE
• The Gerry Cook (Mary River cod) Fish Hatchery will be closed and temporarily relocated during construction.		• It is anticipated that the hatchery will return to the site after construction. • Seqwater may use the site during construction as a holding place for rescued fish.	
19. Adjacent licence holders – Lake Macdonald Rowing Club: • The rowing club currently row on the lake four days a week. • The rowing club will not have access to the site they are currently using during construction. • The rowing club currently has two storage containers on site - this would be costly for the club to move and they have nowhere to locate the containers. • The rowing club also has a certain amount of fencing they are unable to store. • Members disbursing and re-establishing the club difficult. • Members can join other clubs, however rowing on a river is more difficult and requires more vigilance and most members will be traveling further to a new club. • For the rowing club, the proximity of the boats to the water is critical – the ability to carry boats, especially the larger boats, to the water body is necessary.	Lake Macdonald Rowing Club, Friends of Noosa Botanic Gardens	• Support Lake Macdonald Rowing Club to store equipment during construction. • Provision of new licence to the rowing club once construction is complete.	Chapter 2 Chapter 13
20. Adjacent neighbours – Noosa Shire Council, Noosa Botanic Gardens:	Noosa Shire Council, Friends of Noosa Botanic Gardens, Sunny Coast Trail Riders	• Smaller events such as senior picnics and garden club events are not held by the lake so the impact will be limited to odour issues.	Chapter 11 Chapter 13

ISSUE	RAISED BY	SUGGESTED RESPONSE (AVOID, MITIGATE, MANAGE, COMMUNICATE)	IAR REFERENCE
21. Approximately 30 per cent of all weddings held in the Noosa Botanic Gardens are hosted in the amphitheatre. 22. Loss of income – weddings held elsewhere due to loss of visual amenity, noise and odour. 23. Events may move elsewhere due to loss of visual amenity, noise and odour including the Noosa Water Festival. 24. Loss of visual amenity – impact on visitors to the gardens including regular visits of residents of aged care facilities. 25. Loss of visual amenity – impact on weddings hosted in the amphitheatre. 26. Noise – impact on visitors to the gardens including regular visits of residents of aged care facilities. 27. Noise – impact on weddings hosted in the amphitheatre. 28. Odour – impact on visitors to the gardens including regular visits of residents of aged care facilities. 29. Odour – impact on weddings hosted in the amphitheatre.		• Garden clubs and local aged care facilities need to be given details of the timing of construction in order to plan ahead. • No impact to water use unless water restrictions become necessary as the gardens do not take water from the lake.	
30. Adjacent neighbours – residential: • Increase in traffic. • Decrease in property value during construction. • Noise and vibration – of water pumping during lowering, construction and truck movements.	Adjacent neighbours, local residents, Noosa and District Landcare, Sunny Coast Trail Riders,	• Design and operate all equipment to comply with the *Environmental Protection (Noise) Policy 1997*. • Standard hours of operation during the Project would be six-days per week, 6:30am to 6:30pm Monday to Friday and 6:30am to 4:00pm on Saturdays, with no work to be carried out on Sunday or public holidays. • There is likely to be the need for extended work hours from time to time for critical construction activities.	Chapter 2 Chapter 11 Chapter 13 Appendix xx EMP

ISSUE	RAISED BY	SUGGESTED RESPONSE (AVOID, MITIGATE, MANAGE, COMMUNICATE)	IAR REFERENCE
• Loss of visual amenity. • Impact of odour on enjoyment of property and normal recreation around the lake. • Stock/animals getting stuck in mud during construction.		These activities are likely to include things such as mass concrete pours and demolition works where the embankment has not been secured and are critical for public safety. • Ensure a high level of communication with local residents regarding the potential for odours to be generated as a result of lowering the water level in the lake. • Recovery of fish from the reservoir will minimise potential for odours relating to the decomposition of fish. • Monitor, and if required, promote vegetation growth on the exposed banks to encourage drying out of the sediments/mud and promote aerobic conditions that may minimise offensive odour generations.	
31. Lake Macdonald Park: • Recreation restrictions due to water lowering	Adjacent neighbours	• Noted – to manage in communications	Chapter 13
32. Downstream neighbours – residential: • Flooding during lake lowering – access to property, damage to property. • Flooding – during construction. • No water flow during lake reinstatement.	Noosa Shire Council, MRCCC, Downstream residents	• Develop an Emergency Action Plan. • Construction timed to occur during dry season. • Undertake weather monitoring. • Monitor water flow downstream.	Chapter 4 Chapter 13 (1.5.3) Emergency Action Plan
33. Recreation – on-water: • Access to on water recreation during construction including fishing, canoeing and non-petrol powered boating. • Fishing – petrol powered boats are currently prohibited (with an exemption granted to the rowing club for their safety	Noosa Shire Council, Scouts Queensland, Individual recreation users, Private school	• All on-water recreation will be prohibited during construction and for a period during the reinstatement of the lake for safety purposes. • Fishing platforms will be closed during construction. • Following the completion of construction, all impacted recreation facilities and areas will be reinstated. • There are currently no plans to change recreational use at Lake Macdonald once the project is complete.	Chapter 2 Chapter 13

ISSUE	RAISED BY	SUGGESTED RESPONSE (AVOID, MITIGATE, MANAGE, COMMUNICATE)	IAR REFERENCE
boat). Fishing occurs off jetties and unpowered or electrically powered boats. • Student groups using the facilities at Camp Cooroora use canoes on the lake. • Two requests were made in the community survey to allow petrol powered boats and jet skis.		Seqwater's recreation review in 2014 found there was support in the community for continuing with the prohibition of fuel-powered boats on Lake Macdonald. • There are alternative places for recreation available in the area including Lake Cootharaba, Lake Weyba and Lake Cooroibah. Ewen Maddock Dam (about 60 kilometres from Lake Macdonald) and Borumba Dam (about 50km from Lake Macdonald) are other options. The Noosa River also offers another option for water-based activities.	
34. Recreation – land-based • The trail head for trail 4 and 7 of the Noosa Trail Network will be closed during construction restricting use for walkers, mountain bike riders and horse riders. • Horse riders require space for parking vehicles and horse floats. • Horse riders have a strong preference to ride in loops. • Mountain bike riders often park then ride from the trail head.	Sunny Coast Trail Riders, Noosa Shire Council, Individual recreation users, adjacent neighbours, local residents	The Noosa Trail Network will remain open, however access points to the trails will change during construction. Vehicle parking and foot access will be closed at the Lake Macdonald Drive trail head (near Kookaburra Park) and along Collwood Road due to construction activities. Plans to provide alternative access and vehicle parking for the Noosa Trails Network in this vicinity are being worked through with Noosa Shire Council.	Chapter 2 Chapter 13
35. Water security: • Availability of water during construction. • Risks of water restrictions during construction.	Friends of the Noosa Botanic Gardens, adjacent neighbours, local residents	Seqwater has planned for supply of the Noosa region water supply zone without Lake Macdonald water, relying on raw water from Mary River to feed the Noosa WPT and/or treated water from the NPI. All current treated water supply points will continue to be supplied by Seqwater, via the existing water reticulation network managed by Unitywater. This would include water truck standpipes that may be used to supply residents typically using rainwater tanks.	Chapter 2

ISSUE	RAISED BY	SUGGESTED RESPONSE (AVOID, MITIGATE, MANAGE, COMMUNICATE)	IAR REFERENCE
36. Logistics: • Parking for workforce.	Friends of the Noosa Botanic Gardens, adjacent neighbours, local residents	The construction work force is likely to be sourced from the surrounding district and commute to the Project site via light vehicles. Car parking for all light vehicles will be located within the Project area and Seqwater will specify that construction workforce will not utilise road verges for parking.	Chapter 2 Chapter 10 Chapter 13

D4 Evaluation

The engagement program adhered to the standards set out in the original strategy and fulfilled the requirement to include a community engagement element in the IAR. Community and stakeholders were provided with timely, factual and relevant information about the Project andpotential impacts during the dedicated engagement period. The program also adhered to the *Quality Assurance Standard forCommunity and Stakeholder Engagement* developed by IAP2.

The engagement program provided community the opportunity to provide input and ask questions during the development of the IAR using an accessible and interactive range of tools. A final summary of activities shows:

- 12 participants in the scoping survey
- 31 participants in the community impact survey
- 7 participants in the business survey
- 8 participants attending library drop-in information sessions
- more than 50 queries addressed at the Noosa Water Festival and provided formal feedback to around 20 stakeholders
- one Community Reference Group meeting
- presentation to the Cooroy Chamber of Commerce
- 1370 visits to the Lake Macdonald Dam Safety Upgrade engagement website
- 468 ‘informed’ participants on the Lake Macdonald Dam Safety Upgrade engagement website
- 50 ‘engaged’ participants on the Lake Macdonald Dam Safety Upgrade engagement website

The engagement program produced data that is representative of the concerns of the community and several community members commented the level of engagement was appropriate and appreciated.

D4.1 Requirements for future consultation

The Project will require a concrete batching plant to be located at the site during the construction period. Development of the plant requires approval under the Noosa Planning Scheme for a Material change of use as an impact assessable application. Under the scheme, public notification must be undertaken during phase two of the Project.

As the proposal is being assessed by the Department of the Environment and Energy under the *Environment Protection and Biodiversity Conservation Act 1999*, section 103(3) of the Act states that a proponent must seek feedback on the proposal for a period of not less than 20 business days.

D4.2 Recommendations for future engagement

The proposal for future engagement activities, including during the IAR disclosure include:

- a workshop to all participants in the engagement program to deliver results and proposed mitigations
- during the draft consultation period ensure that stakeholders are notified through established channels
- display the draft IAR in two locations with staffed times advertised in advance allowing for further comment
- compile feedback for final IAR.

Appendix A IAP2 Core Values for Public Participation

1. Public participation is based on the belief that those who are affected by a decision have a right to be involved in the decision-making process.
2. Public participation includes the promise that the public's contribution will influence the decision.
3. Public promotion promotes sustainable decisions by recognising and communicating the needs and interests of all participants, including decision makers.
4. Public participation seeks out and facilitates the involvement of those potentially affected by or interested in a decision.
5. Public participation seeks out and facilitates the involvement of those potentially affected by or interested in a decision.
6. Public participation seeks input from participants in designing how they participates.
7. Public Participation provides participants with the information they need to participate in a meaningful way.
8. Public participation communicates to participants how their input affected the decision

Appendix B IAP2 Quality Assurance Standard for Community and Stakeholder Engagement

IAP2 Australasia Community Engagement Model

Appendix C IAP2 Public Participation Spectrum

INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL				
To provide the public with balanced and objective information to assist them in understanding the problem, alternatives and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision, including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of the public.
PROMISE TO THE PUBLIC				
We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision. We will seek your feedback on drafts and proposals.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will work together with you to formulate solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

Appendix D Online Social Survey Questions

Preamble

Lake Macdonald is one of several dams in South East Queensland to be upgraded as part of Seqwater's Dam Improvement Program over the next five years.

This will be the first major upgrade of the dam since the walls were raised in 1980 and will involve building a new spillway to efficiently control water flowing out of the dam. At this stage, construction is expected to start in mid to late 2019, subject to approvals.

In December 2017, the dam upgrade was declared a 'coordinated project' under the *State Development and Public Works Organisation Act 1971*. We are developing an Impact Assessment Report to investigate the potential impacts of the project including noise, traffic, recreation and the environmental values of Six Mile Creek. We would also like to understand whether the Lake Macdonald Dam Safety Upgrade might have a positive or negative impact on local community.

The purpose of this survey is to capture feedback on how you think the project might affect the community.

Firstly, can we collect a few details about you?

Do you live:

- Near Lake Macdonald Dam
- In the local area such as Cooroy or Pomona
- In the Noosa LGA
- In the Sunshine Coast region
- Outside of the region

Are you:

- Male
- Female

Are you aged:

- Under 18 years
- Between 18 – 30 years
- Between 30- 60 years
- Over 60 years

How long have you known about the Lake Macdonald Dam Safety Upgrade?

- Just found out about it
- About one month
- Between one and six months
- Longer than 6 months

How did you find out about the about the Lake Macdonald Dam Safety Upgrade?

- Word of mouth
- Webpage or internet search

Social media

- Received a letter from Seqwater

Local newspaper article

Thank you.

Which of the following aspects of the project are you most interested or concerned? *(Select only those you are interested in)*

- Lowering of the lake to enable construction to occur
- Generation of noise, dust and air emissions at the construction site
- Increased traffic and heavy vehicle movements
- Temporary loss of recreational opportunities
- Effects on local business and industry
- Temporary changes to downstream flows because of the lowering
- Other

What concerns you most about the temporary lake lowering?

- Effects on aquatic animals such as fish, turtles, platypus etc.
- Effects on wildlife such as birds, kangaroos, etc.
- Effects on stock such as horses, cattle, deer etc.
- Potential for weed growth and land erosion
- Potential for exposed plant matter resulting in odour
- Loss of visual amenity
- Other

Provide any additional detail to explain what you are concerned about:

How do you think the effect could be avoided or managed?

What concerns you most about construction noise, dust and air emissions?

- Effects on surrounding residential properties
- Effects on the Noosa Botanic Gardens and other nearby public spaces
- Effects on walking trails and other recreational areas
- Other

Provide any additional detail to explain what you are concerned about:

How do you think the effect could be avoided or managed?

What concerns you most about increased traffic and heavy vehicle movements?

- Effects on residents and businesses along Elm Street, Lake Macdonald Drive, Sivyers Road, Gumboil Road and Collwood Road
- Increased congestion in Cooroy
- Increased traffic noise affecting schools, day care centres etc.
- Road safety
- Other

Provide any additional detail to explain what you are concerned about:

How do you think the effect could be avoided or managed?

What concerns you most about the impact on recreation in the area?

- Temporary loss of facility for non-motorised boating such as rowing etc.
- Temporary loss of the lake for fishing
- Disturbance to multi-use trails for horse riding, cycling and walking
- Disturbance to adjacent recreation areas such as the Noosa Botanic Gardens and Lake Macdonald Park
- Closure of the scout camp (Camp Cooroora)
- Other

Provide any additional detail to explain what you are concerned about:

How do you think the effect could be avoided or managed?

What concerns you most about the effects on local business and industry?

- Loss of business turnover due to fewer people visiting the lake
- Loss of business turnover/ reduced productivity due to increased traffic and heavy vehicle movements
- Increased business turnover due to the presence of the construction workforce
- Opportunities for businesses due to project related procurement
- Other

Provide any additional detail to explain what you are concerned about:

How do you think the effect could be avoided or managed?

What concerns you most about the changes to flows downstream of the lake?

- Maintaining access to private properties during the lake lowering

- Effects on animals and plants
- Use of the Six Mile Creek for domestic and agricultural purposes
- Use of the creek for recreational purposes
- Other

Provide any additional detail to explain what you are concerned about:

How do you think the effect could be avoided or managed?

Are there any other concerns you have about the project?

Provide any additional detail to explain what you are concerned about:

How do you think the effect could be avoided or managed?

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