

AGENDA ATTACHMENTS

19TH MARCH 2019

ORDINARY COUNCIL MEETING HAMILTON COUNCIL CHAMBERS

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Central Highlands Council

DRAFT Minutes – ORDINARY MEETING – 19th February 2019

Minutes of an Open Ordinary Meeting of Central Highlands Council held at Bothwell Council Chambers, on Tuesday 19th February 2019, commencing at 9am.

1.0 OPENING

The Mayor advises the meeting and members of the public that Council Meetings, not including Closed Sessions, are audio recorded and published on Council's Website.

Mayor L Triffitt opened the meeting at 9.00am.

2.0 PRESENT

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey (left the meeting at 1.58pm), Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J A Honner, Clr J Poore, Mrs Lyn Eyles (General Manager) and Mrs Michaela Herbert (Minutes Secretary).

3.0 APOLOGIES

NIL

4.0 PECUNIARY INTEREST DECLARATIONS

In accordance with Regulation 8 (7) of the Local Government (Meeting Procedures) Regulations 2015, the Mayor requests Councillors to indicate whether they or a close associate have, or are likely to have a pecuniary interest (any pecuniary or pecuniary detriment) or conflict of interest in any Item of the Agenda.

NIL

5.0 CLOSED SESSION OF THE MEETING

Regulation 15 (1) of the *Local Government (Meeting Procedures) Regulations 2015* states that at a meeting, a council by absolute majority, or a council committee by simple majority, may close a part of the meeting to the public for a reason specified in sub-regulation (2).

As per *Regulation 15 (1) of the Local Government (Meeting Procedures) Regulations 2015*, this motion requires and absolute majority

Moved: Clr J Honner

Seconded: Clr A Campbell

THAT pursuant to *Regulation 15 (1) of the Local Government (Meeting Procedures) Regulations 2015*, Council, by absolute majority, close the meeting to the public to consider the following matters in Closed Session

Item Number	Matter	Local Government (Meeting Procedures) Regulations 2015
1.	Confirmation of the Closed Session Minutes of the Meeting held on 15 January 2019	15 (2)(g) – information of a personal and confidential nature or information provided to Council on the condition it is kept confidential
2.	Lease for 4 ILU Ouse	15 (2)(f) – proposals for council to acquire land or an interest in land for for the disposal of land

		5 I
3.	Letter from Ratepayer	15 (2)(j) – the personal hardship of any person who is resident in, or is a ratepayer in, the relevant municipal area
4.	Consideration of Matters for Disclosure to the Public	Regulation 15 (8) - While in a closed meeting, the Council, or Council Committee, is to consider whether any discussions, decisions, reports or documents relating to that closed meeting are to be kept confidential or released to the public, taking into account privacy and confidentiality issues

CARRIEDBY ABSOLUTE MAJORITY

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

Mrs Michaela Herbert left the meeting at 9.05am.

5.1 MOTION OUT OF CLOSED SESSION

Moved: Clr A Bailey

Seconded: CIr S Bowden

That the Council:

- (1) Having met and dealt with its business formally move out of the closed session; and
- (2) Resolved to report that it has determined the following:

Item Number	Matter	Outcome
1	Confirmation of the Closed Meeting Minutes of the meeting held on 19 January 2019	Minutes were confirmed
2	Lease 4 Independent Living Units	The General Manager has been authorised to sign the lease with DHHS
3	Letter from Ratepayer	Letter was discussed
4	Consideration of Matters for Disclosure to the Public	Matters were considered

CARRIED BY ABSOLUTE MAJORITY

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

Mrs Michaela Herbert returned to the meeting at 10.00am.

OPEN MEETING TO PUBLIC

Mayor L Triffitt opened the meeting to the public at 10.00am.

6.0 **DEPUTATIONS**

This item was discussed further in the meeting

6.1 PUBLIC QUESTION TIME

NIL

7.0 MAYORAL COMMITMENTS

11 th January 2019	Business of Council
12 th January 2019 13 th January 2019 14 th January 2019 15 th January 2019	Business of Council
13 January 2019	Business of Council
14 th January 2019	Business of Council
15 th January 2019	Ordinary Council Meeting – Hamilton
16 th January 2019	Business of Council
17 th January 2019	Business of Council
18 th January 2019	Business of Council
19 th January 2019	Business of Council re Business owners/ratepayers
20 th January 2019	Business of Council
	Meeting with Councillors
	Meeting with Independent Living Unit Tenant
	Meeting with Senator Jonathon Duniam
	Telephone Meeting with Ratepayers
	ABC TV Interview
	ABC Radio Interview
22 nd January 2019	Win TV Interview
	Meeting with Examiner Reporters/ Interview
	ABC Radio Interview
	Tasmanian Fire Service Public Meeting
	Telephone Calls with Ratepayers
	Telephone Call from Ministers
rd	ABC TV Interview
23 rd January 2019	ABC Early Morning Radio Interview
	ABC 11am Radio Interview
	ABC 4pm Radio Interview
th	Win TV Interview
24 th January 2019	ABC Radio 7.45am
	ABC Radio 9.00am
	Tasmania Police Meeting
	Meeting with the Tasmanian Fire Service Chief
th	Phone Meeting with Minister Michael Fergusson
25 th January 2019	Meeting with Rebecca White MP
	Meeting with Jen Bulter MP for Labour – Bothwell
	ABC TV Interview
	Mercury interview
a ath	ABC Radio Morning and Evening Interviews
26 th January 2019	Australia Day Awards – Hamilton
ooth is a cost o	Visit Miena – Bush Fire Effected Area
26 th January 2019	Meeting with Emergency Services – Great Lake
	Meeting with Great Lake Community Centre Members
	Central Highlands Lodge Visit
	Visit General Store Miena
	Meeting with Great Lake Hotel Proprietor On-Site Southern Cross TV Interview at Great Lake
	On-Sile Southern Cross IV Interview at Great Lake

	Visit Resident in Miena
th	Bothwell Evacuation Centre Visit
27 th January 2019	ABC Radio at 8am
	Update meeting with Tasmania Police
	Update meeting with Tasmanian Fire Service Chief
	Public Meeting Bothwell Tas Fire
a.	Telephone Meeting with Premier Will Hodgeman
28 th January 2019	8.50am ABC Radio Interview
	Meeting with Bronte Park Resident
29 th January 2019	ABC Interview
	Meeting with a Councillor
30 th January 2019	Meeting with Tasmanian Fire Service re Update on Bushfires
	Business of Council – Planner
	Business of Council – Meeting with the General Manager
31 st January 2019	Great Lake Community Centre Committee meeting via telephone
	Tasmanian Fire Service Public Meeting – Bothwell
	Meeting with Goldwind Representative
1 st February 2019	Business of Council – Great Lake Community Centre
	Business of Council- Ratepayer Concern
	Business of Council- meeting with GM
	Ratepayer meeting
2 nd February 2019	ABC Interview
3 rd February 2019	Government House Mayoral Function
	ABC Radio Interview 4pm
4 th February 2019	ABC Radio Interview 9am
	Planning workshop- Bothwell
	Visit Bothwell Evacuation Centre with Minister Guy Barnett
	Visit Bothwell Fire Station with Minister Guy Barnett
	Business of Council with Councillors
5 th February 2019	Business of Council
	Telephone meeting with Peter Gutwein
6 th February 2019	Meeting the Premier Will Hodgeman, the Bushfire Recovery Coordinator Michael Stevens, Guy
	Barnett MP, General Manager and Deputy General Manager
	Visit to Bushfire Effected Areas with Premier Will Hodgeman, Mark Shelton MP, Guy Barnett MP
	and Michael Ferguson MP
7 th February 2019	Business of Council
	Conversation with Premier Will Hodgeman
	ABC Radio Morning Interview
*	Telephone conversations with Councillor and Rate Payer
8 th February 2019	Tasmanian Fire Service Update Miena
NOTED	

7.1 COUNCILLORS COMMITMENTS

Clr Anita Campbell

15 th January 2019	Regular Council Meeting, Hamilton
22 nd January 2019	Apsley Cross Memorial Service, Wreath laying.
	Tas Fire Community Meeting, Bothwell
27 th January 2019	Tasmanian Fire Community Meeting, Bothwell
31 st January 2019	Tasmanian Fire Community Meeting, Bothwell
4 th February 2019	Planning Workshop, Bothwell
14 th February 2019	Central Highlands Health and Wellbeing Meeting, Hamilton 10am

NOTED

7.2 GENERAL MANAGER'S COMMITMENTS

31 st January 2019	TFS Community Information Session
4 th February 2019	Council Workshop
6 th February 2019	Meeting with Mayor, Premier, Guy Barnett & Michael Stevens
12 th February 2019	TasWater Briefing
	Planning Committee Meeting
	Meeting Carol Owen Social recovery Director Bushfires
14 th February 2019	Community Health & Wellbeing Working Group Meeting

NOTED

7.3 DEPUTY GENRAL MANAGER'S COMMITMENTS

16 th January 2019	Planning information meeting with the Mayor and Planner
	Bushfire Emergency Warning for Lake Fergus and Great Pine Tier issued Community Centre at Miena setup as a nearby safer place
17 th January 2019	Meeting with TasWater – 8 Tarleton Street Hamilton proposed boundary adjustment
	TFS Community Meeting regarding Lake Fergus, Great Pine Tier and Little Pine Lagoon Bushfire
21 st January 2019	Setup Evacuation Centre at Bothwell
21 st January 2019	Meeting with Senator Deniam and Mayor to discuss public transport in the Central Highlands
22 nd January 2019	Waste Management Run Miena
	Apsley Cross Service
	TFS Community Meeting regarding Lake Fergus, Great Pine Tier and Little Pine Lagoon Bushfire
24 th January 2019	Setup Hamilton Evacuation Centre
	Waste Management Run Miena
25 th January 2019	Meeting with Mr Patterson, Regional Australia General Manager – Tasmania Telstra about free payphones in bushfire affected areas and WiFi units for Evacuation Centres
26 th January 2019	Waste Management Run Miena
	Meeting with Mayor at Miena Community Centre
27 th January 2019	TFS Community Meeting regarding Great Pine Tier Bushfire
4 th February 2019	Council Workshop
	Local Government Shared Services Meeting
6 th February 2019	Community Recovery Meeting
8 th February 2019	Emergency Assistance meetings at Bronte Park and Miena
	TFS Community Meeting regarding Great Pine Tier Bushfire, Miena
12 th February 2019	TasWater Stakeholder Engagement
	Meeting Mayor, General Manager, Mrs Turale (THS) and Ms Owen - Social Director for Bushfire Recovery (DPAC)
13 th February 2019	Tool Box Meeting with Mr McPherson Suicide Awareness
14 th February 2019	Community Health & Wellbeing Plan - working group meeting
	Central Highlands Visitor Centre Management Committee Meeting
15 th February 2019	Local Government Legislative Review - engagement session
19 th February 2019	Ordinary Council Meeting
NOTED	

8.0 NOTIFICATION OF COUNCIL WORKSHOPS HELD

4 February 2019 10.00am Bothwell

The Role of the Planning Authority

NOTED

8.1 FUTURE WORKSHOPS

NIL

NOTED

9.0 MAYORAL ANNOUNCEMENTS

Mayor has been busy travelling around the Central Highlands

10.0 MINUTES

10.1 RECEIVAL DRAFT MINUTES ORDINARY MEETING

Moved: Clr J Honner

Seconded: Clr A Bailey

THAT the Draft Minutes of the Open Council Meeting of Council held on Tuesday 15th January 2019 be received.

CARRIED

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

10.2 CONFIRMATION OF MINUTES ORDINARY MEETING

Moved: Clr J Poore

Seconded: Clr R Cassidy

THAT the Minutes of the Open Council Meeting of Council held on Tuesday 15th January 2019 be confirmed.

CARRIED

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

10.3 RECIEVAL DRAFT MINUTES PLANNING COMMITTEE MEETING

Moved: Deputy Mayor J Allwright

Seconded: Clr A Campbell

THAT the Draft Minutes of the Planning Committee Meeting held on Tuesday 12th February 2019 be received.

CARRIED

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

11.0 BUSINESS ARISING

- 12.0 Actioned by Derwent Catchment Facilitator
- 14.1 Actioned by D&ES Manager
- 14.2 Actioned by D&ES Manager
- 14.3 Actioned by D&ES Manager
- 14.6 Actioned by D&ES Manager
- 15.1 Actioned by Works Manager
- 16.1 Actioned by Acting General Manager, email sent to Director of Local Government
- 16.2 No feedback received, Mayor and Acting General Manager to attend the 2019 State Grants
- Commission hearing
- 16.3 LGAT advised of Council's decision
- 16.6 Hamilton Show Committee advised of Council's decision
- 16.7 Mayor discussed matter with Premier of Tasmania
- 16.8 Funding provided to Bothwell District High School
- 16.11 Actioned by Acting General Manager
- 16.13 Matter referred to Central Highlands Visitors Centre Management Committee
- 16.14 Acknowledgement email sent
- 16.16 Training organised
- 16.18 Actioned by Acting General Manager
- 16.19 Actioned by Acting General Manager
- Actioned by Acting General ManagerActioned by Acting General Manager
- 17.1 Actioned by Acting General Manager
- 17.2 Actioned by Acting General Manager

NOTED

12.0 DERWENT CATCHMENT PROJECT REPORT

Moved: Deputy Mayor J Allwright

Seconded: Clr A Campbell

THAT the Derwent Catchment Project report be received.

CARRIED

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

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MOVE TO ITEM 6.0 DEPUTATIONS

Moved: CIr J Honner

Seconded: Clr R Cassidy

THAT Council move to Item 6.0 DEPUTATIONS.

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

Mrs Elaine Herlihy and Ms Jane Malecky entered the meeting at 10.08am.

6.0 DEPUTATIONS

10.00am Mrs Elaine Herlihy – discussed her proposal for a Street Library to be placed in Hamilton.

Mrs Elaine Herlihy left the meeting at 10.23am.

MOVE TO ITEM 13.0 FINANCE REPORT

Moved: Clr R Cassidy

Seconded: Clr J Poore

THAT Council move to Item 13.0 FINANCE REPORT

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

13.0 **FINANCE REPORT**

Moved: Clr R Cassidy

Seconded: Clr J Poore

THAT the Finance Report be received.

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

Mrs Kathy Bradburn (Acting Development & Environmental Services Manager) entered the meeting at 10.26am.

CARRIED

CARRIED

CARRIED

14.0 DEVELOPMENT & ENVIRONMENTAL SERVICES

In accordance with Regulation 25(1) of the Local Government (Meeting Procedures) Regulations 2015, the Mayor advises that the Council intends to act as a Planning Authority under the Land Use Planning and Approvals Act 1993, to deal with the following items:

Moved: Clr J Honner

Seconded: Clr A Bailey

THAT the Development & Environmental Services Report be received.

CARRIED

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

14.1 DA2019/02 : DWELLING AND OUTBUILDING : 280 TODS CORNER ROAD, TODS CORNER

Moved: Deputy Mayor J Allwright

Seconded: Clr R Cassidy

The proposal is assessed to substantially comply with the requirements of the Central Highlands Interim Planning Scheme 2015 and so in accordance with section 57 of the Land Use Planning and Approvals Act 1993, the Planning Authority is recommended to approve the application for a dwelling and outbuilding at 280 Tods Corner Road, Tods Corner, Certificate of Title 143828/3.

Recommended Conditions

General

- 1) The use or development must be carried out substantially in accordance with the application for planning approval, the endorsed drawings and with the conditions of this permit and must not be altered or extended without the further written approval of Council.
- 2) This permit shall not take effect and must not be acted on until 15 days after the date of receipt of this letter or the date of the last letter to any representor, which ever is later, in accordance with section 53 of the land Use Planning And Approvals Act 1993.

Approved Use

3) The outbuilding is approved as ancillary to the Residential use only and must not be used for any other purpose unless in accordance with a permit issued by Council or as otherwise permitted by Council's planning scheme.

External finishes

- 4) Before construction commences, a final colour schedule for the dwelling and outbuilding is to be submitted to and approved by Councils Planning Officer. All external colours must have a light reflectance value not exceeding 40%.
- 5) All exposed metal surfaces are to be pre-coloured, or alternatively suitably painted if the item is not available in such a finish.

Services

6) The developer must pay the cost of any alterations and/or reinstatement to existing services, Council infrastructure or private property incurred as a result of the development. Any work required is to be specified or undertaken by the authority concerned.

Stormwater and wastewater

7) Drainage from the proposed development must be retained on site or drain to a legal discharge point to the satisfaction of Council's General Manager and in accordance with any requirements of the Building Act 2016.

Construction Amenity

8) The development must only be carried out between the following hours unless otherwise approved by the Council's Manager of Development and Environmental Services:

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Monday to Friday 7:00 a.m. to 6:00 p.m. Saturday 8:00 a.m. to 6:00 p.m. Sunday and State-wide public holidays 10:00 a.m. to 6:00 p.m.

- 9) All works associated with the development of the land shall be carried out in such a manner so as not to unreasonably cause injury to, or prejudice or affect the amenity, function and safety of any adjoining or adjacent land, and of any person therein or in the vicinity thereof, by reason of:
 - a. Emission of noise, artificial light, vibration, odour, fumes, smoke, vapour, steam, ash, dust, waste water, waste products, grit or otherwise.
 - b. The transportation of materials, goods and commodities to and from the land.
 - c. Obstruction of any public roadway or highway.
 - d. Appearance of any building, works or materials.
 - e. Any accumulation of vegetation, building debris or other unwanted material must be disposed of by removal from the site in an approved manner. No burning of such materials on site will be permitted unless approved in writing by the Council's Manager of Development and Environmental Services.
- 10) The developer must make good and/or clean any road surface or other element damaged or soiled by the development to the satisfaction of the Council's Manger of Works and Technical Services.

The following advice applies to this permit:

- a) This permit does not imply that any other approval required under any other legislation has been granted.
- b) The issue of this permit does not ensure compliance with the provisions of the Threatened Species Protection Act 1995. Further information is available from the Department of Primary Industries, Parks, Water and Environment.
- c) The issue of this permit does not ensure compliance with the provisions of the Aboriginal Heritage Act 1975. If any suspected Aboriginal heritage items are located during construction the provisions of the Act must be complied with.
- d) This permit is in addition to a building permit. Construction and site works must not commence until approval has been issued in accordance with the Building Act 2016.

CARRIED

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

Dr Josie Kelman and Ms Eve Lazarus entered the meeting at 10.31am.

14.2 BOTHWELL CARAVAN PARK - REQUEST FOR LONG TERM STAY

Moved: Clr R Cassidy

Seconded: Clr J Poore

THAT Council decline the request for the extension of stay and advise the applicant that they will need to vacate the Bothwell Caravan Park.

CARRIED 8/1

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, and Clr J Poore.

AGAINST the Motion:

Clr J Honner

14.3 BOTHWELL CARAVAN PARK - REQUEST FOR LONG TERM STAY

Moved: Clr R Cassidy

Seconded: Clr J Poore

THAT Council decline the request for the extension of stay and advise the applicants that they will need to vacate the Bothwell Caravan Park. CARRIED

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

MOVE TO ITEM 18.0 SUPPLEMENTARY AGENDA

Moved: Clr R Cassidy

Seconded: Clr A Campbell

THAT Council move to item 18.0 Supplementary Agenda

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

SUPPLEMENTARY AGENDA ITEMS 18.0

Moved: Clr R Cassidy

Seconded: Clr A Campbell

THAT Council consider the matters on the Supplementary Agenda.

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

BOTHWELL CARAVAN PARK - REQUEST FOR LONG TERM STAY 18.1

Moved: Clr R Cassidy

Seconded: Clr J Poore

THAT Council decline the request for the extension of stay and advise the applicant that they will need to vacate the Bothwell Caravan Park.

CARRIED

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

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CARRIED

CARRIED

MOVE TO ITEM 14.4 - BRONTE BOAT RAMP TOILET PROPOSAL IFC

Moved: Clr J Poore

Seconded: Clr R Cassidy

THAT Council move to item 14.4 BRONTE BOAT RAMP TOILET PROPOSAL IFC

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

14.4 BRONTE BOAT RAMP TOILET PROPOSAL IFC

Moved: Clr J Poore

Seconded: Clr R Cassidy

THAT Council approve the licence of the land to Inland Fisheries subject to maintenance of the toilets being funded by Inland Fisheries.

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

Mr Adam Wilson (Deputy General Manager) entered the meeting at 10.52am.

Moved: Clr A Archer

Seconded: Clr R Cassidy

THAT Council doesn't proceed with the installation of a new toilet block at Bronte Park at this stage but keep an open mind and consider it in budget deliberations.

CARRIED 5/4

FOR the Motion:

Clr A Archer, Clr S Bowden, Clr A Campbell, Clr R Cassidy and Clr J Poore.

AGAISNT the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Bailey and Clr J Honner.

CARRIED

CARRIED

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CARRIED

14.6 DES BRIEFING REPORT

PLANNING PERMITS ISSUED UNDER DELEGATION

The following planning permits have been issued under delegation during the past month.

NO PERMIT REQUIRED

DA NO.	APPLICANT	LOCATION	PROPOSAL
2019 / 00001	M S Nasiukiewicz	303 Bronte Lagoon Road, Bronte Park	Dwelling Addition
2018 / 00048	P & J Sheds	11 Watkins Road, Tods Corner	Dwelling
2019 / 00003	M P Walls	19 Lochiel Drive, Miena	Outbuilding

DISCRETIONARY USE

DA NO.	APPLICANT	LOCATION	PROPOSAL
2018 / 00059	Draftone Tasmania	181 Gully Road, Fentonbury	Dwelling
2018 / 00058	Longview Design & Drafting	CT 154104/1 Parsons Road, Gretna	Dwelling and Outbuildings (Containers)
2018 / 00037	Pettit Designs	CT 224036/1 Upper Mill Road, Hamilton	Dwelling & Outbuilding

NOTED

Mrs Kathy Bradburn left the meeting at 10.56am

MOVE TO ITEM 12.0 DERWENT CATCHMENT PROJECT REPORT

Moved: Clr J Honner

Seconded: Clr A Campbell

THAT Council Move to item 12.0 Derwent Catchment Project report

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

Clr J Poore left the meeting at 10.56 and returned at 10.58am.

12.0 DERWENT CATCHMENT PROJECT REPORT

Josie and Eve provided information to Councillors regarding where funding is spent and what they do with in the Central Highlands Municipality.

MOTION 1:

Moved: Clr R Cassidy

THAT Council invite Minister Guy Barnett and his opposition Minister to meet with Councillors and the Derwent Catchment Project to discuss further funding.

CARRIED

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

> Mr Jason Branch (Manager of Works and Services) entered the meeting at 11.20am. Dr Josie Kelman and Ms Eve Lazarus left the meeting at 11.22am

> > Seconded: Clr A Bailey

MOVE TO ITEM 15.0 WORKS AND SERVICES REPORT

THAT Council Move to item 15.0 Works and Services Report.

FOR the Motion:

Moved: Clr J Honner

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

WORKS & SERVICES 15.0

Moved: Clr J Honner

Seconded: Clr A Bailey

THAT the Works & Services Report be received.

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FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

15.1 **BUSHFIRES**

Moved: Clr A Campbell

THAT the Mayor writes to the State Government and request assistance for recovery costs after the recent bushfire.

Seconded: Clr A Bailey

CARRIED

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

Mr Jason Branch left the meeting at 11.37am and returned at 11.38am.

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Seconded: Clr A Bailey

CARRIED

CARRIED

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16.0 ADMINISTRATION

Mr Adam Wilson left the meeting at 11.39am and returned at 11.41am.

16.1 TREE REMOVAL CORNER OF CLYDE AND RIVER STREETS, HAMILTON

Moved: Clr R Cassidy

Seconded:

THAT Council revoke the following motion carried at the Council Meeting held on 15 January 2019:

"**THAT** the Works and Services Manager organise the removal of the dangerous Gum Tree on the corner of Clyde and River Streets."

MOTION LAPSED

Clr A Campbell left the meeting at 11.57am and returned at 11.58am.

16.2 2019 BOTHWELL SPININ

RESOLVED THAT Juliette Smith be advised of the following in relation to her queries:

Query 1: Council would like the play equipment area at the lower end of the park near the war memorial fenced off for free use during the SpinIN. Please consult with Jason Branch, Works & Services Manager re temporary fencing. Query 2: Council has agreed that you can lock all gates except those that allow access to the spinIN and the fenced off play equipment. Should any children wish to use the play equipment at the Alexander Street end of the park, they can be redirected to the play equipment at the Recreation Ground.

Query 3: Council has resolved to leave the road closures as previously advised i.e. 8.00 – 4.00 on both days. Council has also requested that access be given for disabled people to the public toilets.

Query 4: Please consult and liaise with the Works & Services Manager re temporary fencing at the rear of the food vans.

Mr Jason Branch left the meeting at 12.00pm.

16.3 STREET LIBRARY, HAMILTON

RESOLVED THAT Council write to Mrs Herlihy thanking her for attending the meeting and that Council look forward to receiving her community grant application for the Street Library in Hamilton.

16.4 REMISSIONS UNDER DELEGATION

NOTED

Clr A Bailey left the meeting at 12.03pm and returned at 12.08pm.

16.5 BOTHWELL MEDICAL PRACTICE

NOTED

16.6 LGAT ANNUAL GENERAL MEETING AND GENERAL MEETING 3 JULY 2019

Moved: Clr R Cassidy

Seconded: Clr J Honner

THAT any proposed motions should be submitted to the General Manager by 12 March 2019 to enable the proposed motions to be included in Council's March Ordinary Meeting agenda for consideration by Council.

CARRIED

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

16.7 TARGA TASMANIA 2019 - ROAD CLOSURE

NOTED

16.8 "LOOKING OUT FOR EACH OTHER" PROJECT AT BOTHWELL SPININ

Moved: Deputy Mayor J Allwright Seconded: Clr A Bailey

THAT Council contribute \$200.00 towards the "Looking Out for Each Other" project at the Bothwell SpinIn.

CARRIED 8/1

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr J Honner and Clr J Poore.

AGAINST the Motion:

Clr R Cassidy

Clr J Poore left meeting at 12.26pm and returned at 12.27pm. Deputy Mayor J Allwright left the meeting at 12.38pm and returned at 12.39pm.

16.8 MEETING PROCEDURES SPECIAL COUNCIL MEETING 26 FEBRUARY 2019

Moved: Deputy Mayor J Allwright

Seconded: Clr R Cassidy

THAT Council adopt the Procedures for Public Comments and/or Questions for all Special Meetings of Council.

CARRIED

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

Procedures for Public Comments and/or Questions for the Special Meeting of Council to be held on 26th February 2019.

Speakers should follow the procedure detailed below.

Public Comments and/or Questions Procedures for Special Meeting of Council

- 1. Only those people that have:
 - (a) Initiated the planning decision under the Land Use Planning and Approvals Act 1993 (Act) ("Applicant"); or
 - (b) The owner of the land subject to the planning decision ("Owner"); or
 - (c) made a representation within the statutory notice period in relation to a planning decision ("Representor")

will be entitled to speak at the meeting.

- 2. Prior to the commencement of the Meeting a person who wishes to address the Meeting must:
 - 2.1 Notify the Council in writing by close of business on the Friday prior to the meeting of the person's intention to address the Meeting, including the following detail:
 - (a) Identify whether the person is the Applicant or a Representor;
 - (b) If a Representor, the date the person made a representation in respect to the planning decision; and
 - (c) the relevant planning decision by the Council allocated number, or by reference to the land to which it relates (eg, by certificate of title, PID or address);
 - (d) the question or topic on which the person wishes to speak.

2.2 Notify the Chairperson of his or her arrival prior to the commencement of the meeting.

- 3. If a person has complied with the procedure in 2, the person will be entitled to speak at the meeting.
- 4. The Chairperson will determine the order of speakers.
- 5. All people entitled to speak will be given equal opportunity to speak.
- 6. Each person will be limited to 3 minutes unless otherwise allowed by the Chairperson.
- 7. A person may make a statement only or ask questions that are directed through the Chairperson.
- 8. A person may not direct questions to staff members unless directed through the Chairperson. The Chairperson may ask staff members to answer any question.
- 9. The Council is under no obligation to answer questions. Questions may be taken on notice. Council may answer such questions at its discretion.
- 10. Councillors may ask questions of the person speaking or seek clarification at the discretion of the Chairperson.
- 11. The Applicant may be given notice of a person's intention to speak. The Applicant will be given an opportunity to speak in reply up to a maximum of 20 minutes at the conclusion of all verbal submissions by representors.
- 12. No debate or argument is permitted at any time.
- 13. Members of the gallery must not interject while another party is speaking.

Weight to be given to verbal representations made at the Meetings in planning decisions

Council is under no obligation to consider or to give any weight to any oral submission or questions made at this Meeting.

Council is under no obligation to give reasons if it chooses not to rely upon or give weight to a verbal representation made.

The hearing of an oral submission at this Meeting by Council does not take any weight or precedence over the written application and representations made.

Ms Jane Malecky left the meeting at 12.46pm. The meeting was adjourned for lunch at 12.46pm and resumed at 1.25pm.

16.9 RECENT BUSHFIRES CENTRAL HIGHLANDS

Moved: Clr J Poore

Seconded: Clr R Cassidy

THAT Deputy Mayor J Allwright, Clr A Archer and Clr S Bowden form a committee to gather information about the bushfire and bring the information back to Council to discuss before making a submission to the State Government.

CARRIED

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

Clr A Bailey left the meeting at 1.58pm.

16.10 POLICY 2013-05 USES OF COUNCIL VEHICLES

Moved: Clr A Archer

Seconded: Clr R Cassidy

THAT prior to Council adopting Policy No 2013-05 Use of Council Vehicles that a review the policy in terms of getting more details regarding the costs involved of the use of Council vehicles.

CARRIED 7 / 1

FOR the Motion:

Mayor L Triffitt, Clr A Archer, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

AGAINST the Motion:

Deputy Mayor J Allwright

16.11 BOUNDARY ADJUSTMENT - 8 TARLETON STREET HAMILTON

Moved: Clr J Honner

Seconded: Clr J Poore

THAT the General Manager be authorised to engage Brooks, Lark and Carrick to undertake the boundary adjustment of 8 Tarleton Street Hamilton as per the terms of contract.

CARRIED

FOR the Motion:

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J Honner and Clr J Poore.

17.0 TABLING OF A PETITION

The General Manager tabled a petition which she received on the 14th of February 2019, requesting a public meeting to discuss the proposed Lake Malbena tourism development.

18.0 SUPPLEMENTARY AGENDA ITEMS

This item was discussed earlier in the meeting.

18.1 BOTHWELL CARAVAN PARK - REQUEST FOR LONG TERM STAY

This item was discussed earlier in the meeting

19.0 CLOSURE

Mayor L Triffitt closed the meeting at 2.17pm.



Central Highlands Council

Draft MINUTES – SPECIAL MEETING – 26th February 2019

Minutes of an Open Special Meeting of Central Highlands Council held at Bothwell Town Hall, on Tuesday 26th February 2019, commencing at 10.40am.

1.0 OPENING

The Mayor advises the meeting and members of the public that all Ordinary and Special Council Meetings, not including Closed Sessions, are audio recorded and published on Council's Website. The Mayor also advises that members of the public are not permitted to make audio recordings of Council meetings.

Mayor L Triffitt opened the meeting at 10.40am.

2.0 PRESENT

Mayor L Triffitt, Deputy Mayor J Allwright, Clr A Archer, Clr A Bailey, Clr S Bowden, Clr A Campbell, Clr R Cassidy, Clr J A Honner, Clr J Poore, Mrs Lyn Eyles (General Manager), Mr Adam Wilson (Deputy General Manager), Ms Jacqui Tyson (Contract Planner), Mrs Michaela Herbert (Minutes Secretary), Mrs Kathy Bradburn (Minutes Secretary) and a large group of people were present in the gallery.

3.0 APOLOGIES

NIL

4.0 PECUNIARY INTEREST DECLARATIONS

In accordance with Regulation 8 of the Local Government (Meeting Procedures) Regulations 2015, the Mayor requested Councillors to indicate whether they or a close associate have, or are likely to have, a pecuniary interest (any pecuniary benefits or pecuniary detriment) or conflict of interest in any Item of the Agenda.

NIL

5.0 COUNCIL ACTING AS A PLANNING AUTHORITY

In accordance with Regulation 25(1) of the Local Government (Meeting Procedures) Regulations 2015, the Mayor advises that the Council intends to act as a Planning Authority under the Land Use Planning and Approvals Act 1993, to deal with the following items.

5.1 PUBLIC COMMENTS AND /OR QUESTIONS ON THE DEVELOPMENT APPLICATION

Procedures for Public Comments and/or Questions for the Special Meeting of Council to be held on 26th February 2019 as adopted by Council at its meeting held on 19 February 2019

Speakers should follow the procedure detailed below.

Public Comments and/or Questions Procedures for Special Meeting of Council

- 1. Only those people that have:
 - (a) Initiated the planning decision under the Land Use Planning and Approvals Act 1993 (Act) ("Applicant"); or
 - (b) The owner of the land subject to the planning decision ("Owner"); or
 - (c) made a representation within the statutory notice period in relation to a planning decision ("Representor")

will be entitled to speak at the meeting.

- 2. Prior to the commencement of the Meeting a person who wishes to address the Meeting must:
 - 2.1 Notify the Council in writing by close of business on the Friday prior to the meeting of the person's intention to address the Meeting, including the following detail:
 - (a) Identify whether the person is the Applicant or a Representor;
 - (b) If a Representor, the date the person made a representation in respect to the planning decision; and
 - (c) the relevant planning decision by the Council allocated number, or by reference to the land to which it relates (eg, by certificate of title, PID or address);
 - (d) the question or topic on which the person wishes to speak.

2.2 Notify the Chairperson of his or her arrival prior to the commencement of the meeting.

- 3. If a person has complied with the procedure in 2, the person will be entitled to speak at the meeting.
- 4. The Chairperson will determine the order of speakers.
- 5. All people entitled to speak will be given equal opportunity to speak.
- 6. Each person will be limited to 3 minutes unless otherwise allowed by the Chairperson.
- 7. A person may make a statement only or ask questions that are directed through the Chairperson.
- 8. A person may not direct questions to staff members unless directed through the Chairperson. The Chairperson may ask staff members to answer any question.
- 9. The Council is under no obligation to answer questions. Questions may be taken on notice. Council may answer such questions at its discretion.
- 10. Councillors may ask questions of the person speaking or seek clarification at the discretion of the Chairperson.
- 11. The Applicant may be given notice of a person's intention to speak. The Applicant will be given an opportunity to speak in reply up to a maximum of 20 minutes at the conclusion of all verbal submissions by representors.

- 12. No debate or argument is permitted at any time.
- 13. Members of the gallery must not interject while another party is speaking.

Weight to be given to verbal representations made at the Meetings in planning decisions Council is under no obligation to consider or to give any weight to any oral submission or questions made at this Meeting.

Council is under no obligation to give reasons if it chooses not to rely upon or give weight to a verbal representation made.

The hearing of an oral submission at this Meeting by Council does not take any weight or precedence over the written application and representations made.

NOTED

5.2 DA2018/50: VISITOR ACCOMMODATION (STANDING CAMP): HALLS ISLAND, LAKE MALBENA, WALLS OF JERUSALEM NATIONAL PARK

The following people registered to speak in accordance with the Public Comments and/or Questions Procedures for Special Meeting of Council and a brief summary of their comments are provided below:

John Campbell:

Main concerns were that the application was non-compliant in particular clauses 29.1 to 29.4 with the Central Highlands Interim Planning Scheme 2015. He also had concerns about the number of flights and the noise from the helicopter.

Dr David Young represented Tasmanian Fly Tyers Club Inc.:

Tasmanian Fly Tyers Inc. have two shacks with 105 members, 15 of these members are Central Highlands Shack Owners. They want to keep the experience of the Western Lakes unique and are against the reliance on helicopters.

Tom Allen represented Wilderness Society Tasmania Inc.:

Wilderness Society Tasmania Inc. are concerned that there are 8 breaches of the Central Highlands Interim Planning Scheme 2015.

Senator Nick McKim represented the Tasmanian Greens:

Stated the RAA has no statutory basis and should not be accepted by Council and questioned the classification of a standing camp.

Clinton Garratt:

Has been a full time outdoor guide for five years and believed there was no openness on the lease or re-zoning of Lake Malbena/Halls Island.

Jarrah Vercoe:

Had concerns regarding the setbacks in the planning scheme and the performance criteria, the stormwater, the vegetation and bushfires.

Fred Duncan:

Had concerns regarding not receiving a Fire Management Plan with there being many highly flammable species.

Robyn Lewis:

Has had a family connection to the Western Lakes since the 1800's and has a background in tourism. She has concerns of the noise from the helicopters and the welfare of wildlife and people from low flying helicopters.

Nicholas Sawyer represented Tasmanian National Parks Association:

Noted that they are conservationists and not the Parks and Wildlife Service. He was concerned regarding the RAA that was provided and state it was a mistake to class the Development as a level three where as it should have been a level four with public consultation. He was also concerned about grey water.

Patricia Jane Wilson:

Had concerns that the development doesn't meet the Central Highlands Interim Planning Scheme 2015.

Dr Neil Smith:

Concerned about the quantity of stormwater that will be generated and that the development is not within the World Heritage Management Plan. He believed that the Planner had given too much weight to the Parks and Wildlife Service assessment. There are also concerns regarding the new tracks that would be formed and that the buildings proposed are not a standing camp.

Dr David Young:

Concerns that the development didn't comply with 29.1 of Planning Scheme and that the Self-reliant Recreation Zone only allows standing camps and not huts. Independent advice should to be sought on the classification of the buildings.

Richard Romaszko:

Concerned that the State Government process isn't complete and that the use of helicopters does not comply with the zoning.

Bill Tomalin:

Is a teacher and has taken students to the Western Lakes for many years including Halls Island for walking expeditions. He is concerned that rules have been broken, bent and changed to allow this development to happen.

Kate Johnston representing Tasmanian wilderness Guides Association:

Members of the newly formed Tasmanian Wilderness Guides Association have views regarding developments in World Heritage Areas and believe they need to be preserved. They feel the development application lacks information regarding stormwater/rain water and that Council should not base their decision on the development already receiving State and Federal Approval.

Vica Bailey, Independent candidate for Nelson:

Concerned that the application did not comply with the World Heritage Management Plan. He was also concerned that the proposed buildings were not standing camps and the impact of helicopter flights.

Hans-Joachim Mueller:

Is opposed the commercial helicopter access to the area and wants to protect the values of the wilderness.

Angela Triffitt:

Concerned that the flight routes were not clear in the development application, no bushfire management plan was submitted, eagles nests in the area and was concerned that some information on the documents was blacked out and unable to be read. Ms Triffitt also declared that she was the Mayors daughter but in no way influenced the decision.

Jane Malecky:

Was concerned about the noise of the helicopters, wedge tail eagle nests and the increased fire risk on the island. She believes that we need to keep the wilderness wild.

Heather Sculthorpe representing the Tasmanian Aboriginal Council:

The use of private developments on public land should not be allowed, they object to the development due to be processes and secret dealings with the application. They are very concerned regarding the erosion of wilderness values and possible impacts on Aboriginal cultural values. She reminded Councillors that it's okay to stand up and say no to the application.

Rodney Dillon representing Aboriginal Heritage Centre:

Is the chair of the Statutory Advisory Council and they believe their concerns have been ignored by the State and Federal Government. They believe that their concerns have not been weighted and that the process has been flawed and that no adequate Aboriginal assessment had been undertaken.

Brett Smith representing Fishers and Walkers Against Helicopter Access Tasmania Facebook Page:

The Facebook page has over 800 followers that are very concerned regarding helicopter access and pleaded with Council to reject the application to keep the wilderness values.

Jennifer Smith:

Stated that other levels of Government have not followed process and believes that Council have been pushed into a corner. She is concerned that the application does not meeting the Planning Scheme and will deter people from the area.

The meeting was adjourned at 12.15pm for lunch and resumed at 12.50pm.

Daniel Hackett, Applicant

Daniel Hackett is the director of Wild Drake and with his wife, has 40 years combined experience in the tourism industry. They developed the first ever standing camp in the Western Lakes at Lake Ina and want to treat the World Heritage Area more sensitively. Daniel spoke briefly on previous processes by other levels of Government and stated that both Councils Planning report and his independent planner, Frazer Reid, indicate compliance with Council's Planning Scheme. He also stated that there will be continued work with Aboriginal communities and that they work closely with the Tasmanian Museum and Art Gallery to preserve the history of the area.

Jacqui Tyson, Contract Planner:

Gave an overview of the proposal and advised that Visitor Accommodation in the Environmental Management Zone is a permitted use. She acknowledged the concerns raised by many on the process of the State and Federal Governments but advised that this is not relevant to the Planning Scheme.

Councillors were given an opportunity to direct any questions to Daniel Hackett regarding the Development Application.

Mayor L Triffitt asked the following questions:

- Do you intend to develop any type of trail or track to access any Aboriginal Heritage in the area whether it be on Halls Island or off Halls Island, if no, what exactly are you referring to when you state that that cultural interpretation is a planned activity? (pages 3 of 54 in the PWS RAS)
- Why are the three pages of community consultation with in PWS RAA totally blacked out?
- Why did you not provide the leases within your application documents? What is the length of both leases? As I understand one is in your name and the other in the name of Wild Drake.

Daniel Hackett then responded to the Mayor's questions (brief description):

- The first question was answered in two parts: first part being no there will not be other tracks/trails built on the island and; as for other off island activities are yet to be assessed and yet to be approved but there will be public consultation. He also stated that there will be consultation and involvement from Aboriginal communities.
- These pages have been in the public domain for over a year. They were blanked out for privacy reasons with fear of retribution if they were publically named.
- All documents provided is what can and can't be done with in the lease of the land. Believed that it was commercial confidence and that information didn't need to be provided and if it was asked of any other business they would probably give you the same answer and not provide the other information.

Mayor L Triffitt responded (brief description):

• Are the documents you have supplied within the application, those that were approved by Crown on the 3rd of August 2018, has there been any change in design or materials, or any changes to flight paths since then?

Daniel Hackett responded to the Mayor's questions (brief description):

• There are no changes to the helicopter routes and maybe minor of an edition of one step to the design which will be 900mm wide but that is all.

Mayor L Triffitt:

 As noted within the PWS RAA, you state that unanticipated discovery plan will be developed and implemented to cover scenarios where Aboriginal heritage may be discovered on the construction site. It is known that this plan was not a part of the application papers but have you completed this UPD as stated in March 2015?

Daniel Hackett then responded to the Mayor's questions (brief description):

- Mentioned that it was not a plan that they had to create and that it is actually created and given to them.
- He also stated that a tree was found that has some Aboriginal contractions and Aboriginal heritage were notified of this.
- Cultural surveys will also be undertaken of potential walking locations and Halls Island to prevent damage to any sites found.

Mayor L Triffitt:

• There are further parts of the report that are blocked out, again can you tell the Planning Authority why?

Daniel Hackett then responded to the Mayor's questions (brief description):

 Again stated this was for privacy reasons as they are the locations of sensitive Aboriginal cultural sites.

Mayor L Triffitt:

 Based on the information it appears that the helipad and some of the proposed tracks cast through areas of listed threatened native vegetation community, it appears that these areas were not surveyed as part of the on ground assessment by North Barker. No information has been provided in the documents regarding the size or form of these structures. (PWS RAA page 40 of 54) Proposed Tracks of Halls Island, can you explain that please?

Daniel Hackett then responded to the Mayor's question (brief description):

• The helicopter landing sites in the general area there has been a full flora and fauna assessment provided by North Barker.

Miss Angela Triffitt, through the Chair, asked the following Question (brief Description):

- Stated that she was quite confused with Mr Hackett's response to the Mayors question in that the building of the huts will not unearth the ground.
- The architectural designs that she had actually seen have a kenset footing system that does indeed unearth the ground which would also be against the PWS Standing Camp Policy of 2006, but believes that goes against what Mr Hackett had previously stated.

Mayor L Triffitt then asked Mr Hackett to respond to the question asked by Ms Triffitt (brief description):

• Mr Hackett stated that as with any bushwalking tent with pegs, there will be some kenset bolts that will be put into the sheet rock and that doesn't involve removal of great lots of soil or anything that might be high on the aboriginal cultural point at the point of inserting them.

Deputy Mayor J Allwright asked the following question:

• There is discussion around the privatisation of you managing the visitation, but just as a matter of clarification, there's no attempt to try and manage the visitation of the Shoreline?

Daniel Hackett then responded to Deputy Mayor's question (brief description):

- Mr Hackett then clarified that there is an identifiable area to which they are responsible for and if something happened in that space then they would be responsible so it needs to be definable. Halls Island has very little area where you are able to pitch a tent and camp.
- Still want people to use and experience the hut.

Deputy Mayor J Allwright:

• Given the interest this had generated, a flood of people may want to walk there, who is responsible for the damage that they might do? For example the Shoreline?

Daniel Hackett then responded to Deputy Mayor's question (brief description):

Informed that obviously it is an issue but as that is not a part of the lease area, it will be someone else who will deal with it.

Clr J Poore, Clr S Bowden, Clr A Campbell and Clr R Cassidy all provided statements regarding the position that Council is in with this development application.

MOTION 1:

Moved: Deputy Mayor J Allwright

Seconded: Clr J Poore

The proposal is assessed to substantially comply with the requirements of the Central Highlands Interim Planning Scheme 2015 and so in accordance with Section 57 of the *Land Use Planning and Approvals Act 1993*, the Planning Authority is recommended to approve the Development Application for use and development of Visitor accommodation in the form of a Standing Camp at Halls Island, Lake Malbena.

Recommended Conditions:

General

- 1) The use or development must be carried out substantially in accordance with the application for planning approval, the endorsed drawings and with the conditions of this permit and must not be altered or extended without the further written approval of Council.
- 2) This permit shall not take effect and must not be acted on until 15 days after the date of receipt of this letter or the date of the last letter to any representor, whichever is later, in accordance with section 53 of the land Use Planning And Approvals Act 1993.

Approved Use

- 3) The site is to be used for the purposes detailed within the approved documents only, that is; Visitor accommodation and ancillary activities. It must not to be used for other purposes without the prior written consent of Council.
- 4) The Helicopter Landing Site is approved as ancillary to the Visitor accommodation use only and must only be used for purposes associated with that use i.e. construction, guest transfers to and from the visitor accommodation, servicing and emergencies. Helicopters and the Helicopter Landing Site must not be used for any other purpose and must altogether cease if the Visitor accommodation use ends.

Rehabilitation

5) If the Visitor accommodation use ceases for any reason all approved buildings and structures must be removed from the site and the site must be rehabilitated to avoid environmental degradation such as erosion, to the satisfaction of the Council's General Manager.

External finishes

- 6) The external building materials and finishes associated with the development are to be of types and colours that are sympathetic to the natural environment as detailed in the approved plans and shall be to the satisfaction of the Council's General Manager.
- 7) All external metal building surfaces must be clad in non-reflective pre-coated metal sheeting or painted to the satisfaction of the Council's General Manager.

Services

- 8) All stormwater from the roofs of the proposed development must be captured for re-use onsite with water from overflows to be dispersed to avoid any concentrated or diverted discharge that may cause unnatural erosion. Such water must not be directly discharged to Lake Malbena. All such works must be to the satisfaction of Councils Plumbing Inspector.
- 9) All wastewater from the proposed development must be captured in sealed tanks and removed from the site for disposal at an approved facility outside the Tasmanian Wilderness World Heritage Area, to the satisfaction of Councils General Manager.

Operations and Management Plans

- 10) Before any work commences the following documents must be submitted to the satisfaction of Councils General Manager:
 - Reserve Activity Assessment approval including any conditions;
 - Operations Manual;
 - Construction Environmental Management Plan;
 - Weed and Hygiene Plan;
 - Indigenous Heritage Management Plan;
 - Species and Communities of Significance Plan;
 - Fire Management Plan
 - Customised Fly Neighbourly Advice Impact Mitigation and Avoidance Prescription Plan;
 - Wilderness Characteristics Management Plan;
 - Soil and Water Management Plan; and
 - Emergency Management Plan

Construction Amenity

11) The development must only be carried out between the following hours unless otherwise approved by the Council's Manager of Development and Environmental Services:

Monday to Friday 7:00 a.m. to 6:00 p.m.

Saturday 8:00 a.m. to 6:00 p.m.

Sunday and State-wide public holidays 10:00 a.m. to 6:00 p.m.

- 12) All works associated with the development of the land shall be carried out in such a manner so as not to unreasonably cause injury to, or prejudice or affect the amenity, function and safety of any adjoining or adjacent land, and of any person therein or in the vicinity thereof, by reason of:
 - a. Emission of noise, artificial light, vibration, odour, fumes, smoke, vapour, steam, ash, dust, waste water, waste products, grit or otherwise.
 - b. The transportation of materials, goods and commodities to and from the land.
 - c. Appearance of any building, works or materials.
 - d. Any accumulation of vegetation, building debris or other unwanted material must be disposed of by removal from the site in an approved manner. No burning of such materials on site is permitted.

The following advice applies to this permit:

- a) This permit does not imply that any other approval required under any other legislation has been granted.
- b) The use and development must not commence until all other approvals have been obtained.
- c) Construction and site works must not commence until any necessary approval has been issued in accordance with the *Building Act 2016*.
- d) The Soil and Water Management Plan shall be prepared in accordance with the guidelines Soil and Water Management on Building and Construction Sites, by the Derwent Estuary Programme and NRM South, the State Policy for Water Quality Management 1997.
- e) The issue of this permit does not ensure compliance with the provisions of the Aboriginal Heritage Act 1975. If any suspected Aboriginal heritage items are located during construction the provisions of the Act must be complied with.
- f) The issue of this permit does not ensure compliance with the provisions of the Threatened Species Protection Act 1995, Nature Conservation Act 2002 or the Commonwealth Environmental Protection and Biodiversity Protection Act 1999.
- g) Any signage associated with the use located on the land may require further pre-approvals from Council.

MOTION LOST 3/6

FOR the Motion:

Deputy Mayor J Allwright, Clr S Bowden, and Clr J Poore.

AGAINST the Motion:

Mayor L Triffitt, Clr A Archer, Clr A Bailey, Clr A Campbell, Clr R Cassidy and Clr J Honner.

MOTION 2:

Moved: Clr A Archer

Seconded: Clr J Honner

In accordance with Section 57 of the Land Use Planning and Approvals Act 1993 and the Central Highlands Interim Planning Scheme 2015, the Planning Authority REFUSE the Development Application for use and development of Visitor accommodation in the form of a Standing Camp at Halls Island, Lake Malbena.

FOR the Motion:

CARRIED 6/3

Mayor L Triffitt, Clr A Archer, Clr A Bailey, Clr A Campbell, Clr R Cassidy and Clr J Honner.

AGAINST the Motion:

Deputy Mayor J Allwright, Clr S Bowden, and Clr J Poore.

Mayor L Triffitt thanked everyone who had put so much effort and work into the development application. She also thanked the Councillors, Council Staff and everyone involved that made the meeting happen.

6.0 CLOSURE

Mayor L Triffitt closed the meeting at 2.05pm.



Central Highlands Council

DRAFT MINUTES AUDIT PANEL MEETING – 25 FEBRUARY 2019

Draft Minutes of the Central Highlands Audit Panel Meeting held at Hamilton Council Chambers, on Monday 25 February 2019.

1.0 OPENING

Mr Ian McMichael (Chairperson) opened the meeting at 9.04am

2.0 PRESENT

Mr Ian McMichael (Chairperson), Deputy Mayor J R Allwright, Clr J Poore, Mrs Lyn Eyles (General Manager), Mr Adam Wilson (Deputy General Manager), Mr David Doyle (Accountant) and Mrs Casey Bryant (Minutes Secretary)

3.0 APOLOGIES

NIL

4.0 CONFIRMATION OF MINUTES

Moved Deputy Mayor J R Allwright

THAT Minutes of the previous meeting held on Tuesday 9th October 2018 be confirmed.

Carried

For the Motion: I V McMichael (Chair), Deputy Mayor J R Allwright, Clr J Poore

5.0 PECUNIARY INTEREST DECLARATIONS

In accordance with Regulation 8 (7) of the Local Government (Meeting Procedures) Regulations 2015, the Chair requests Members to indicate whether they or a close associate have, or are likely to have a pecuniary interest (any pecuniary or pecuniary detriment) or conflict of interest in any Item of the Agenda.

Seconded Mr Ian McMichael

NIL

6.0 BUSINESS ARISING

NIL

7.0 STANDING ITEMS

- Statutory Financial Requirements Report Noted
- Financial Reports Noted
- Risk Management Register Noted
- Policy Review Noted

Recommendation:

THAT Council adopt the Use of Council Vehicle Policy

Carried

For the Motion: I V McMichael (Chair), Deputy Mayor J R Allwright, Clr J Poore

8.0 NEW BUSINESS

- 8.1 Audit Panel Training Workshop Noted
- 8.2 Draft Tasmanian Councils' Working Capital Snapshot as at 30 June 2018 Noted
- 8.3 Review Audit Panel Annual Work Plan Noted
- 8.4 Review Long Term Asset Management Plans and Long Term Financial Plan Noted

It was **RESOLVED** that the Audit Committee recommend to Council a 3% + CPI increase in rates in 2019 / 2020 and a 2% + CPI for the 3 years following in the Long Term Financial Plan to go to the Council Meeting in March.

9.0 OTHER BUSINESS

10.0 NEXT MEETING

Tentative date for next meeting – Monday 3rd June 2019 at 9.00am Hamilton

11.0 CLOSURE

Mr Ian McMichael closed the meeting at 10.20am



MINUTES OF THE CENTRAL HIGHLANDS VISITOR CENTRE **MANAGEMENT COMMITTEE** MEETING HELD IN THE BOTHWELL VISITOR CENTRE AT 4.00 PM ON **TUESDAY 14TH FEBRUARY 2019**

1.0 PRESENT

Clr Poore (Chairperson), Mr W Doran (Bothwell Historical Society), Mr K Allcock (Bothwell Historical Society) and Mr L Jeffery (Australasian Golf Museum)

IN ATTENDANCE

Mr D Dyson (visitor from Bothwell Historical Society) and Mr A Wilson (Deputy General Manager)

APOLOGIES

Clr Honner, Mr L Costello (Bothwell Tourism Committee) and Mrs L Eyles (General Manager)

2.0 **CONFIRMATION OF MINUTES**

Moved K Allcock

Seconded L Jeffery

THAT the Draft Minutes of the Central Highlands Visitor Centre Management Committee Meetings held on Tuesday 25 September 2018 to be confirmed.

FOR the Motion:

Clr Poore, W Doran, K Allcock and L Jeffery

3.0 **BUDGET ITEMS**

The following items were discussed and Mr Allcock thanked Council for installing the heat pump in the Old Headmasters Residents, however additional heating is required in the front room.

It was agreed that the capital works allocation for the Central Highlands Visitor Centre be relocated to the supply and installation heating in the Old School House building front room, purachse a Smart TV, purchase a new sign for the centre and update the layout of the Visitor Centre.

Mr Allcock to discuss with Queen Victoria Museum & Art Gallery best types of display cabinets for the Visitor's Centre.

Carried

The Development & Environmental Service Manager to organise to have the front door seal repaired, alarm system updated and organise for the guttering to be cleaned.

4.0 VOLUNTEERS

A general discussion took place regarding the need for additional volunteers and the need to fill the proposed Volunteer Centre Co-Ordinator position. The position description for the Volunteer Centre Co-Ordinator was approved by the committee and it was agreed that the position should be advertised in the Highlands Digest.

Visitor Centre opening hours will be reduced due to a lack of volunteers.

5.0 BUS TOUR OF OTHER VISITOR INFORMATION CENTRES

A general discussion took place regarding the need to undertake a bus tour of the Deloraine and Evandale Visitor Information Centres.

It was agreed that the bus tour would take place on the 11 April 2019 leaving Bothwell at 8.30am from the visitor centre.

Deputy General Manager to contact the Co-Ordinator of the Deloraine and Evandale Visitor Information Centres.

6.0 NEW CENTRAL HIGHLANDS VISITOR CENTRE SIGN

A copy of the proposed artwork of the new sign for Central Highlands Visitor Centre was tabled at the meeting and members agreed to the following:

Moved L Jeffery

Seconded K Allcock

THAT a new sign be purchase for the Central Highlands Visitor Centre from the current capital works budget.

FOR the Motion:

Carried

Clr Poore, W Doran, K Allcock and L Jeffery

7.0 SMART TV

A general discussion took place regarding a smart TV.

Moved W Doran

Seconded L Jeffrey

THAT a Smart TV be purchased for the Central Highlands Visitor Centre.

FOR the Motion:

Carried

Clr Poore, W Doran, K Allcock and L Jeffery

8.0 OTHER BUSINESS

Bothwell Bi-Centenary

The Bothwell Bi-Centenary was discussed and over the next six months a plan will be developed for Council to consider.

Friendship Ball

A proposal has been received from the family of the late Barbara Fowler to have the friendship ball located within the Central Highlands Visitor Centre near the entrance to the Australasian Golf Museum, the Management Committee will consider this request.

9.0 NEXT MEETING

The next meeting will be held at 4.30pm on the 22 May 2019

10.0 CLOSURE

There being no further business CIr Poore thanked everyone for attending and closed the meeting at 5.35pm.



MINUTES OF THE PLANNING COMMITTEE MEETING OF THE CENTRAL HIGHLANDS COUNCIL HELD IN THE BOTHWELL COUNCIL CHAMBERS AT 9.00AM ON TUESDAY 12th MARCH 2019

1.0 PRESENT

Clr Allwright (Chairperson), Clr Cassidy & Clr Poore

IN ATTENDANCE

Mr G Rogers (Manager DES), Ms J Tyson (Planning Officer) & Mrs K Bradburn (Minutes Secretary) & Mr C Selkirk (Tassal)

2.0 APOLOGIES

Mayor Triffit & Mr A Wilson (Acting General Manager)

3.0 PECUNIARY INTEREST DECLARATIONS

In accordance with Regulation 8 (7) of the Local Government (Meeting Procedures) Regulations 2015, the Chairman requests Councillors to indicate whether they or a close associate have, or are likely to have a pecuniary interest (any pecuniary or pecuniary detriment) in any item of the Agenda.

Nil

4.0 CONFIRMATION OF MINUTES

Moved Clr Cassidy

Seconded Clr Poore

THAT the Draft Minutes of the Planning Committee Meeting of Council held on Tuesday 12th February 2019 to be confirmed.

Carried

For the Motion: Clr Allwright, Clr Cassidy & Clr Poore

5.0 QUESTION TIME & DEPUTATIONS

Clr Allwright introduced Mr Craig Selkirk from Tassal. Mr Selkirk advised that he has come along today in case Councillors have any questions.

6.0 DA2018/11 : RESOURCE DEVELOPMENT (AQUACULTURE) – DRUM FILTER UPGRADE TO HATCHERY: 289 WAYATINAH ROAD, WAYATINAH

Report by

Jacqui Tyson (Senior Planning Officer)

Applicant

All Urban Planning Pty Ltd obo Salmon Enterprises of Tasmania Pty Ltd (SALTAS)

<u>Owner</u>

Salmon Enterprises of Tasmania Pty

Proposal

The proposal is for the installation of a new drum filter system at an existing salmon hatchery operated by SALTAS at 289 Wayatinah Road, Wayatinah.

The drum filter is a concrete chamber approximately 1.2m deep, 7m high and 8m across, to be located within an existing hatchery pond. The purpose of the drum filter is to remove solids and organic particles from the effluent stream before the water is returned to the river.

The SALTAS hatchery program at Wayatinah and Florentine is industry owned and run, where salmon growers operate a collaborative industry selective breeding program since 2004. Brood stock from this facility is then used by industry operators to stock their own hatcheries.

Resource development for aquaculture is a Permitted use in the Rural Resource Zone of the Central Highlands Interim Planning Scheme 2015. However, this application has is discretionary due to reliance on Performance Criteria for setbacks.

Statutory Status - Level 2 Activity

Under Tasmania's Resource Management and Planning System, the State Environment Protection Authority (EPA) has statutory responsibility for environmental impact assessment of proposed developments and activities that may have significant impact on environmental quality. Development proposals for large industry (Level 2 Activities) are referred by Council to the Board of the EPA for environmental impact assessment and determination.

This proposal is a Level 2 Activity as it involves finfish farming, which has been added to the Level 2 Activities in Schedule 2 of the *Environmental Management and Pollution Control Act 1994*.

This means that the (EPA) must be involved in assessment of the environmental aspects of the Development Application and consider any representations that raise environmental matters.

In this case the proposal has been approved by the EPA Board, subject to conditions, that must be attached to any permit issued by the Council.

Subject site and Locality.

The subject site is situated in a valley on the northern bank of the Derwent River, just south of the Wayatinah township on the eastern side of the main road.

The site is developed with the existing salmon hatchery, which is located around 800m west of where the Derwent River enters Wayatinah Lagoon.

Most of the land surrounding the hatchery is managed by Sustainable Timbers Tasmania. Land and waters to the east are managed by Hydro Tasmania.

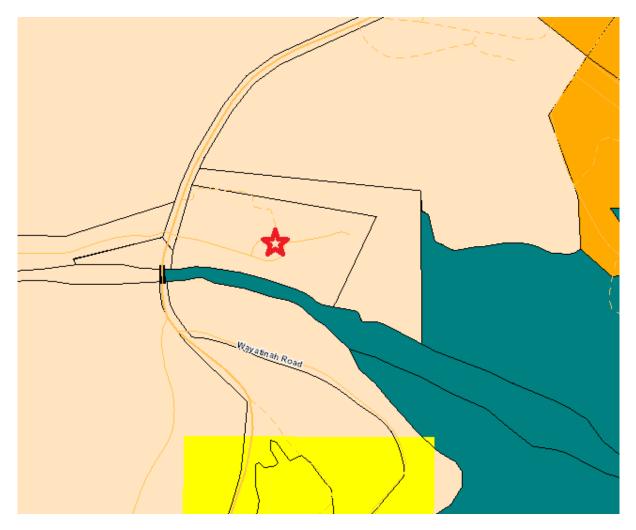


Fig 1. Location and zoning of the subject land (location of hatchery marked by red star) in the Rural Resource zone (Cream). Surrounding land is zoned Environmental Management (green), Village (orange) and Utilities (yellow) (Source: LISTmap).



Fig 2. Aerial photo of the subject land and surrounding area (Source: LISTmap).

Exemptions

Nil

Special Provisions

Nil

Rural Resource Zone - Use standards

No use standards are applicable to this proposal.

Rural Resource Zone - Development standards

The proposal must satisfy the requirements of the relevant development standards of the Rural Resource Zone as follows:

26.4.1 Building height To ensure that building height contributes positively to the rural landscape and does not result in unreasonable impact on residential amenity of land.		
Acceptable Solutions	Performance Criteria	OFFICER COMMENT
A1 Building height must be no more than:	P1 Building height must satisfy all of the following:	The drum filter is largely installed below ground level.
8.5 m if for a residential use.	(a) be consistent with any Desired Future Character	The proposal complies with the Acceptable Solution A1.
10 m otherwise.	Statements provided for the area;	

(b) be sufficient to prevent unreasonable adverse impacts on residential amenity on adjoining lots by overlooking and loss of privacy;	
(c) if for a non- residential use, the height is necessary for that use.	

26.4.2 Setback

To minimise land use conflict and fettering of use of rural land from residential use, maintain desireable characteristics of the rural landscape and protect environmental values in adjoining land zoned Environmental Management.

Acceptable Solutions	Performance Criteria	OFFICER COMMENT
A1 Building setback from frontage must be no less than:	P1 Building setback from frontages must maintain the desirable characteristics of the surrounding landscape and protect the amenity of adjusting late baying regard	The proposed development is setback approximately 150m from the road frontage, easily complying with the Acceptable Solution
20 m.	adjoining lots, having regard to all of the following:(a) the topography of the site;	A1.
	(b) the size and shape of the site;	
	(c) the prevailing setbacks of existing buildings on nearby lots;	
	(d) the location of existing buildings on the site;	
	(e) the proposed colours and external materials of the building;	
	(f) the visual impact of the building when viewed from an adjoining road;	
	(g) retention of vegetation.	
A2	P2	The proposed development is sited less than 50m from

Building setback from side and rear boundaries must be no less than:	Building setback from side and rear boundaries must maintain the character of the	the boundary with the Derwent River.
50 m.	surrounding rural landscape, having regard to all of the following:	The proposal is part of an existing salmon hatchery operation and will not
	(a) the topography of the site;	substantially change the appearance of the site and is considered to comply with the requirements of
	(b) the size and shape of the site;	Performance Criteria P2.
	(c) the location of existing buildings on the site;	
	(d) the proposed colours and external materials of the building;	
	(e) visual impact on skylines and prominent ridgelines;	
	(f) impact on native vegetation.	
A3	Р3	This standard is not
Building setback for buildings for sensitive use must comply with all of the following: (a) be sufficient to provide a separation distance from a plantation	Building setback for buildings for sensitive use (including residential use) must prevent conflict or fettering of primary industry uses on adjoining land, having regard to all of the following:	applicable to the proposal.
forest, Private Timber Reserve or State Forest of 100 m;	(a) the topography of the site;	
(b) be sufficient to provide a separation distance from land zoned	(b) the prevailing setbacks of existing buildings on nearby lots;	
Significant Agriculture of 200 m.	(c) the location of existing buildings on the site;	
	(d) retention of vegetation;	
	(e) the zoning of adjoining and immediately opposite land;	
	(f) the existing use on adjoining and immediately	

	opposite sites;	
	(g) the nature, frequency and intensity of emissions produced by primary industry uses on adjoining and immediately opposite lots;	
	(h) any proposed attenuation measures;	
	(i) any buffers created by natural or other features.	
A4	P4	
Buildings and works must be setback from land zoned Environmental Management no less than: 100 m.	Buildings and works must be setback from land zoned Environmental Management to minimise unreasonable impact from development on environmental values, having regard to all of the following: (a) the size of the site;	The proposed development is located approximately 40m from the boundary with the Environmental Management Zone, so assessment against the Performance Criteria is necessary. The proposal is for a drum
	 (b) the potential for the spread of weeds or soil pathogens; (c) the potential for contamination or 	filter which will improve the quality of water effluent from the site. The proposal has been assessed by the EPA and is subject to ongoing monitoring to ensure the site
	sedimentation from water runoff; (d) any alternatives for	_
	development.	The proposal complies with P4.

26.4.3 Design To ensure that the location and appearance of buildings and works minimises adverse impact on the rural landscape.		
Acceptable Solutions	Performance Criteria	OFFICER COMMENT
A1	P1	The proposal complies with
The location of buildings and works must comply with any	The location of buildings and works must satisfy all of the	the Acceptable Solution A1.
of the following:	following:	It is not located on a skyline or ridgeline and does not
(a)	(a)	require clearing of
be located within a building	be located on a skyline or	vegetation.
area, if provided on the title;	ridgeline only if:	
(b)		

		[]
be an addition or alteration to an existing building;(c)be located in and area not require the clearing of native vegetation and not on a	(i) there are no sites clear of native vegetation and clear of other significant site constraints such as access difficulties or excessive slope, or the location is necessary for the	
skyline or ridgeline.	functional requirements of infrastructure; (ii) significant impacts on the rural landscape are minimised through the height of the structure, landscaping and use of colours with a light	
	reflectance value not greater than 40 percent for all exterior building surfaces; (b) be consistent with any Desired Future Character	
	Statements provided for the area; (c) be located in and area requiring the clearing of native vegetation only if:	
	(i) there are no sites clear of native vegetation and clear of other significant site constraints such as access difficulties or excessive slope, or the location is necessary for the functional requirements of infrastructure;	
	(ii) the extent of clearing is the minimum necessary to provide for buildings, associated works and associated bushfire protection measures.	
A2 Exterior building surfaces must be coloured using colours with a light reflectance value not greater	P2 Buildings must have external finishes that are non- reflective and coloured to blend with the rural	Exterior finishes will have a light reflectance value of less than 40 percent in accordance with Acceptable Solution A2.

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than 40 percent.	landscape.	
A3 The depth of any fill or excavation must be no more than 2 m from natural ground level, except where required for building foundations.	excavation must be kept to a	any fill or excavation greater than 2m and therefore
	rural landscape of the area; (b) does not unreasonably impact upon the privacy of adjoining properties; (c) does not affect land stability on the lot or adjoining areas.	

<u>Codes</u>

The proposal does not require assessment against any Codes.

Representations

The proposal was advertised for the statutory 14 day period from 8th December 2018 until 24th December 2018. A total of four (4) representations were received, each addressing DA2018/11 and DA2018/12.

The matters raised in the representations are presented in the table below. The issues raised are all in regard to environmental matters which in the case of Level 2 proposal are assessed and monitored by the EPA. None of the issues raised are within the Council's jurisdiction. The EPA assessment is appended to this report.

Representation 1	
Issues	Officer comments
We are pleased that finally some improvements are to be made to the treatment of effluent from these businesses.	The matters raised are in relation to environmental considerations, which have been assessed by the EPA.
We are however concerned that these proposal are inadequate to address the full extent of the current pollution loads in to the respective catchments. Given the importance of these catchments, for the variety of uses they are put to, including drinking water, we would propose that only a best practice solution should be considered adequate.	
The proposals both make reference to a bio filter process to deal with dissolved nutrients but dismiss this based on size and cost. I would submit that any proposal that does not remove the dissolved nutrients from the water is not fit for	

We urge the EPA to reject these proposals and	
Representation 2	<u> </u>
Issues	Officer comments
Hydro Tasmania is pleased to see the confidence Saltas has in the Tasmanian aquaculture industry at this time, and we welcome their investment to upgrade their facilities at Wayatinah and Florentine. However, the water quality of recreational water bodies such as Wayatinah Lagoon and Lake Catagunya during the warm months (November to March) have the potential to be impacted by the disposal of untreated waste, and may adversely impact human health and general the enjoyment of this place if not carefully managed. Consideration must also be given to adverse impacts on water quality from increased biomass volumes to downstream users and environments. We encourage the EPA to establish emissions limits that are appropriate within the environments they are discharging to, and that a suitable monitoring program is instigated, including monitoring of the receiving reservoirs. In addition, we would like to see that the data and reporting from their monitoring program is shared with managers of receiving and downstream waters to improve the understanding of potential impacts on water quality.	The matters raised are in relation to environmental considerations, which have been assessed by the EPA.
Representation 3	
Issues	Officer comments
The Derwent Estuary Program (DEP) welcomes the	The matters raised are in relation to
application made by SALTAS to install drum filters at their Wayatinah and Florentine Hatcheries. The proposed drum filters will improve the amount of total suspended solids entering the River Derwent from the hatcheries, and any improvement in reducing the amount of solids and any nutrients and organics associated with these. This is a positive development and we are in favour of the proposed activity. We have read the Environmental Effects Reports relating to the applications and have a few questions and concerns that we would like to bring to your attention. We hope that the comments listed below encourage discussions to guarantee the most positive outcomes for water quality improvements in the River Derwent. <u>Environmental Effects Report Wayatinah Hatchery</u> p. 7, 2.1.1 first paragraph statement: "The drum filter is deemed the most feasible system to remove solid particles and reduce the organic and nutrient concentrations of the effluent being released to the receiving environment." This statement is somewhat misleading. Drum filters can certainly remove solids and nutrients bound to particulate	environmental considerations, which have been assessed by the EPA.

of solids and nutriants associated with those. However	
of solids and nutrients associated with those. However, there has been evidence (River Derwent & Catchment Tributary Water Quality Report, DEP, 2018) that dissolved nutrients (particularly dissolved phosphorus, as in PO ₄ -P) are directly released by fish farm hatcheries. Hence, the statement is not correct with regards to dissolved nutrients. Therefore, can we request that a more/an additional system that addresses removal of dissolved nutrients, e.g. via flocculation also be considered?	
How effective are drum filters in removing solids? 100%? Will this be monitored downstream?	
p. 12, 2.1.2 second paragraph statement on construction of diversion infrastructure (bypassing settling pond): "The diversion of the outflow water is not expected to result in any increase of organic nutrients to the river as the existing settlement pond retention time (15-20 mins) is less than the industry standard of one hour."	
Do we know how 'inefficient' the current settlement pond is? Or is it perhaps better than nothing for the duration of drum filter construction?	
The additional diversion infrastructure is planned to be permanent and used in the future for maintenance and emergencies. Can we have more information on when this might be the case, how often it would happen and if these events will have to be reported (to EPA, made public)?	
 p. 13, 2.1.3 construction period 5 months starting December 2018 or January 2019; Construction of the drum filter and use of bypass infrastructure would occur during high biomass season. Is this a concern (no settlement pond in use during that time)? Is it better to have the system installed as soon as possible vs. construction during low biomass season and /or high river flow rate season? 	
p. 14-15, 2.1.5 third paragraph, the water from the plate clarifier is returned to the drum filter inlet but is not expected to result in higher concentrations of dissolved nutrients.	
How often will this be monitored to verify that this is really the case? Could during this process, at any stage, anoxic conditions develop that could potentially increase dissolved concentrations of nutrients?	
 p. 15-16 sludge removal; The sludge will be removed by a 'licenced waste removal contractor' (e.g. Spectran Group). Is there an approved agreement? The anticipated waste (28.1 wet tonnes/month, is this an average or could this even be more during high biomass season?) is significant, is there a contractor that can deal with this type and volume of waste? Where does it go? Odour issues at waste site? Will the waste removal methods be checked by the EPA or company? 	

p. 20, aquatic habitats and environmental values SALTAS has operated the site since 1987 and effluent flows downstream into the Wayatinah Lagoon which is a declared Hydro Conservation Area. If the proposal's statement on the inefficiency of the settlement pond is true, how much has the Wayatinah Lagoon already acted as a 'natural' settlement pond? What is the impact of 30 years of hatchery solids on the lagoon? (This is not relevant to the proposal but a question that arises from it) p. 34, 3.3.1.2 Water quality guideline values Previous monitoring was conducted irregularly, with more frequent sampling events in 2018. To whom will future monitoring be reported to (EPA, public)? The upper value of the detection limit was used when parameters fell below detection limit. This is obviously an issue for nutrient mass load calculations from the hatchery, because the background concentrations are overestimated. Can raw values from AST be requested and used for this assessment? Is the calculation of Water Quality Guideline Values appropriate and sufficient? Again, if background values fall below detection limit, how can we assess what the natural nutrient levels are? Perhaps alternative analytical techniques with better detection limits can be sought to establish baseline values and guideline values, e.g. via IC-MS at the University of Tasmania. p. 41, 3.3.2.2 Interim effluent quality limits It seems that effluent quality limits have been set on the hatcheries own data/values. How does this compare with other hatcheries and their effluent limits? Who will review these values after drum filter installation and how will exceedances be handled? p. 43, 3.3.5 sediment control 'Installation of [...] as required' - What are the requirements, by whom? Who inspects? p. 49-50, 3.14 Monitoring and review Is the proposed future monitoring sufficient (3 locations sampled fortnightly for 6 months, then monthly)? Who will this be reported to? Monitoring to align with other hatcheries? Should sulfur be included as macro-nutrient for future assessments? Response/Questions regarding SALTAS Florentine Hatchery **Drum Filter Construction Application** p. 7, 2.1.1 description, third paragraph Description incorrectly copied from Wayatinah application, no intake of water from any lake. Is the flow rate at Florentine really the same as at Wayatinah? Overall, similar issues as in Wayatinah application, which are:

	1
• Drum filters do not remove dissolved nutrients.	
Timeframe of construction during high biomass	
season a concern?	
Re-circulation of water from clarifier could cause	
increased nutrient concentrations.	
Where does the sludge waste go and who will	
inspect this?	
 Establishment and assessment/review of water 	
quality and effluent guideline values/limits.	
 Will future monitoring results be reported to EPA 	
and/or available to public?	
Representation 4	
Issues	Officer comments
I am very pleased to learn that environmental	The matters raised are in relation to
improvements for these two hatcheries are progressing. The	environmental considerations, which
proposed drum filters should remove a significant	have been assessed by the EPA.
proportion of solid wastes that are currently discharged to	
downstream waterways with minimal treatment.	
However, this is just the first step. Both hatcheries will	
continue to discharge significant loads of dissolved nutrients	
– particularly ammonia and dissolved phosphorus – and	
these discharges will continue to be highest during summer	
and autumn, when water levels are low and risks are	
highest. For freshwater systems, phosphorus removal is	
particularly important, and the near-pristine lakes	
Catagunya and Wayatinah are located immediately	
downstream. There are also a number of downstream	
drinking water supplies, including at Wayatinah,	
Meadowbank and Bryn Estyn. Nutrients can stimulate algal	
blooms in downstream lakes, reservoirs and estuaries.	
These blooms can include both nuisance blooms as well as	
toxic and/or tasteand-odour producing blue-green algae –	
such as those that have affected the Hobart water supply at	
Bryn Estyn over the past few summers.	
It is difficult to estimate the annual suspended solid, BOD	
and nutrient loads from the hatcheries from the data	
provided, but it appears that they would be similar to the	
loads from two medium-size sewage treatment plants. The	
proposal that the effluent will be discharged directly to the	
downstream waterways during the 5-month	
construction/commissioning period is also of concern. This	
would occur during the period of highest smolt biomass and	
during summer/autumn months. The option of reducing	
biomass – for example by shifting as much of this	
production as possible to hatcheries with good treatment	
systems (e.g. Rookwood) - needs to be considered here.	
Both hatcheries require a more comprehensive strategy,	
that address both solids and nutrients. This may require	
biological removal and/or full recirculation with irrigation	
(as has been implemented at the Rookwood hatchery).	
Clearly this will be a more expensive strategy, but it is	
unacceptable to continue discharging poorly treated	
effluent from these hatcheries – particularly given their	
emuent nom these natchenes – particularly given their	<u> </u>

location in the upper Derwent catchment where water quality is exceptionally high, and natural values and recreational activities are also very high. As such, I would request and strongly recommend that the applicant provide further detail as to how and when both of these hatcheries will be brought up to AMT standards. It may be sensible to do this as a second stage EER so that at least some basic improvements can be made asap, but a rapid timeline is needed to expedite this. If the sites cannot physically accommodate the necessary upgrades, it may be time to find more suitable sites. Specific comments: • During construction, it appears that the waste stream will essentially by-pass the existing settling ponds for an extended period. Although the ponds are currently not very effective, particularly at Wayatinah, other options should be considered here – including reducing the standing biomass during this period. Further detail about the design of the interim systems are also needed, to ensure they is as effective as possible. • What quantity and proportion of solid wastes will be removed? • What quantity and proportion of particulate and dissolved nutrients will be removed? • As an interim measure, the EER should consider incorporating some additional nutrient removal system following installation of the drum filter. Would alum dosing be effective to further remove phosphorus? Or installation of a wetland polishing system within or associated with the detention basin? There are some good consultants (e.g. Syrinx) who could potentially provide useful advice on this. Water quality data and guideline values: • The data used to develop the draft interim water quality guidelines is patchy and skewed, and there is much better baseline data available that was collected as part of the Derwent Estuary Program's Derwent Catchment Monitoring Program over a
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I Program's Lierwent Latchment Michitering Program Over a
two-year period (August 2015 to August 2017). This data set
also provides good seasonal coverage. I strongly
recommend that this data be used as the basis for setting
water quality targets for both hatcheries – specifically the sites 'Florentine above Fish Farm' and 'Wayatinah Lagoon'.
This data is available on request (and was previously
provided to P Davies). The summary report for this
monitoring program is available at
https://www.derwentestuary.org.au/assets/River_Derwent
_and_Catchment_Tributary_Water_Quality_
Report_2018.pdf • What is the source of the data used to
generate the 'Upper Derwent Water Quality Guidelines',
and how were these derived? These may not be suitable –
particularly for the for the Florentine. The Florentine River is
somewhat unusual in the Derwent system, with relatively
high conductivity and nitrate-nitrite levels, associated with
the upstream dolomite geology. NOx levels in the Florentine
also show strong seasonal variations. • The TSS and BOD
values for the settlement pond outfall and the downstream
sampling point are very similar - both at at Wayatinah and
Florentine - and not a lot higher than the upstream levels,

which is unexpected. Why is this? • Furthermore, at	
Wayatinah, the median values for a number of parameters	
appear to be higher at the downstream site than at the	
settling pond. Why is this? Is there much in the way of	
summer flow in this section of the Derwent, or this the flow	
primarily from the hatchery? (by way of pumped flow from	
Wayatinah).	
Other • The section on therapeutic treatments is	
disturbingly vague, particularly as the hatchery is upstream	
of several public drinking water supplies and important	
recreational fisheries. What quantities are used and when?	
In particular, which of these therapeutics are used in the	
flow through systems, and how much enters receiving	
waters? • The ASC-required BFEIA and the biannual	
macroinvertebrate survey results should be provided here	
to better document conditions upstream and downstream	
of the hatcheries. When were these surveys done? Do they	
include summer/autumn low flow conditions, when biomass	
levels at the hatcheries are highest. • Finally, please confirm	
that the annual environmental reports will be made	
available to the public.	

Conclusion

The proposal for a drum filter at the SALTAS salmon hatchery at 289 Wayatinah Road, Wayatinah is assessed to comply with the applicable standards of the Rural Resource Zone of the *Central Highlands Interim Planning Scheme 2015* as outlined in the body of this report.

Aquaculture for finfish is a Level 2 Activity and environmental assessment of this proposal has been undertaken by the EPA, in accordance with the statutory requirement.

The proposal was advertised for public comment and four (4) representations were received. The concerns of the representor have been addressed in the EPA assessment, as they are in regard to environmental matters.

Overall, it is considered that the proposal is acceptable and is recommended for approval.

Discussion by Committee

Councillors directed questions to Mr C Selkirk to seek clarification on the following:

- Are further upgrades proposed? Drum Scheme has been designed in such a way that it could be extended / upgraded in the future if required.
- What happens to the Sludge? Sludge is composted at Plenty.
- Did the EPA request the upgrades? Finfish farming is now classed as a Level 2 Activity under EMPCA and therefore applications are now referred to the EPA but industry monitoring has been the driving force for the upgrades not the changes to EMPCA.

Recommendation

Moved Clr Cassidy

Seconded Clr Poore

The proposal is assessed to substantially comply with the requirements of the Central Highlands Interim Planning Scheme 2015 and so in accordance with section 57 of the Land Use Planning and Approvals Act 1993, the Planning Authority is recommended to approve

the application for Resource development (Aquaculture) – Drum Filter Upgrade to Hatchery at 289 Wayatinah Road, Wayatinah.

Recommended Conditions

General

- 1) The use or development must be carried out substantially in accordance with the application for planning approval, the endorsed drawings and with the conditions of this permit and must not be altered or extended without the further written approval of Council.
- 2) This permit shall not take effect and must not be acted on until 15 days after the date of receipt of this letter or the date of the last letter to any representor, whichever is later, in accordance with section 53 of the land Use Planning and Approvals Act 1993.
- 3) The person responsible for the activity must comply with the conditions contained in the Environmental Licence No 9839/1 issued by the EPA pursuant to Section 42Q(3) of the Environmental Management and Pollution Control Act 1994.

Services

4) The developer must pay the cost of any alterations and/or reinstatement to existing services, Council infrastructure or private property incurred as a result of the development. Any work required is to be specified or undertaken by the authority concerned.

Construction Amenity

5) The development must only be carried out between the following hours unless otherwise approved by the Council's Manager of Development and Environmental Services:

Monday to Friday 7:00 a.m. to 6:00 p.m. Saturday 8:00 a.m. to 6:00 p.m. Sunday and State-wide public holidays 10:00 a.m. to 6:00 p.m.

- 6) All works associated with the development of the land shall be carried out in such a manner so as not to unreasonably cause injury to, or prejudice or affect the amenity, function and safety of any adjoining or adjacent land, and of any person therein or in the vicinity thereof, by reason of:
 - a. Emission of noise, artificial light, vibration, odour, fumes, smoke, vapour, steam, ash, dust, waste water, waste products, grit or otherwise.
 - b. The transportation of materials, goods and commodities to and from the land.
 - c. Obstruction of any public roadway or highway.
 - d. Appearance of any building, works or materials.
 - e. Any accumulation of vegetation, building debris or other unwanted material must be disposed of by removal from the site in an approved manner. No burning of such materials on site will be permitted unless approved in writing by the Council's Manager of Development and Environmental Services.
- 7) The developer must make good and/or clean any road surface or other element damaged or soiled by the development to the satisfaction of the Council's Manger of Works and Technical Services.

The following advice applies to this permit:

a) This permit does not imply that any other approval required under any other legislation has been granted.

Carried

6.1 DA2018/12: RESOURCE DEVELOPMENT (AQUACULTURE) – DRUM FILTER UPGRADE TO HATCHERY: 675 FLORENTINE ROAD, FLORENTINE

Report by

Jacqui Tyson (Senior Planning Officer)

Applicant

All Urban Planning Pty Ltd obo Salmon Enterprises of Tasmania Pty Ltd (SALTAS)

<u>Owner</u>

Sustainable Timbers Tasmania (formerly called Forestry Tasmania)

Proposal

The proposal is for the installation of a new drum filter system at an existing salmon hatchery operated by SALTAS at 675 Florentine Road, Florentine.

The drum filter is a concrete chamber approximately 1.5m deep, 7m high and 8m across, to be located within an existing hatchery pond. The purpose of the drum filter is to remove solids and organic particles from the effluent stream before the water is returned to the river.

The SALTAS hatchery program at Wayatinah and Florentine is industry owned and run, where salmon growers operate a collaborative industry selective breeding program since 2004. Brood stock from this facility is then used by industry operators to stock their own hatcheries.

Resource development for aquaculture is a Permitted use in the Rural Resource Zone. However, the application has is discretionary due to being located within a Waterway Protection Area of the Waterway and Coastal Protection Code of the Central Highlands Interim Planning Scheme 2015.

Statutory Status - Level 2 Activity

Under Tasmania's Resource Management and Planning System, the State Environment Protection Authority (EPA) has statutory responsibility for environmental impact assessment of proposed developments and activities that may have significant impact on environmental quality. Development proposals for large industry (Level 2 Activities) are referred by Council to the Board of the EPA for environmental impact assessment and determination.

This proposal is a Level 2 Activity as it involves finfish farming, which has been added to the Level 2 Activities in Schedule 2 of the *Environmental Management and Pollution Control Act 1994*.

This means that the (EPA) must be involved in assessment of the environmental aspects of the Development Application and consider any representations that raise environmental matters. In this case the proposal has been approved by the EPA Board, subject to conditions, that must be attached to any permit issued by the Council.

Subject site and Locality.

The subject site is situated in a valley between the Florentine and Derwent Rivers. The rivers converge as they enter Lake Catagunya, approximately 700m east and downstream of the existing hatchery.

The site is developed with the existing salmon hatchery, located about 720m east of the entry point from Florentine Road.

The land surrounding the hatchery is classified as Permanent Timber Production and is managed by Sustainable Timbers Tasmania. The surrounding land is largely forested, with a mix of plantation and native forest. The area north of the Derwent River is a conservation reserve, also managed by Sustainable Timbers Tasmania.



Fig 1. Location and zoning of the subject land (approximate location of hatchery marked by red star) in the Rural Resource zone (Cream). Land north of the Derwent River is zoned Environmental Management (green). Rivers are shown in blue for clarity (Source: LISTmap).



Fig 2. Aerial photo of the subject land and surrounding area (Source: LISTmap).

Exemptions

Nil

Special Provisions

Nil

Rural Resource Zone - Use standards

No use standards are applicable to this proposal.

Rural Resource Zone - Development standards

The proposal must satisfy the requirements of the relevant development standards of the Rural Resource Zone as follows:

26.4.1 Building height To ensure that building height contributes positively to the rural landscape and does not		
Acceptable Solutions	on residential amenity of land. Performance Criteria	OFFICER COMMENT
A1	P1	
Building height must be no more than:	Building height must satisfy all of the following:	The drum filter is largely installed below ground level.
8.5 m if for a residential use.	(a) be consistent with any Desired Future Character Statements provided for the	The proposal complies with the Acceptable Solution A1.
10 m otherwise.	area;	
	(b) be sufficient to prevent unreasonable adverse impacts on residential	

amenity on adjoining lots by overlooking and loss of privacy;	
(c) if for a non- residential use, the height is necessary for that use.	

26.4.2 Setback

To minimise land use conflict and fettering of use of rural land from residential use, maintain desireable characteristics of the rural landscape and protect environmental values in adjoining land zoned Environmental Management.

Acceptable Solutions	Performance Criteria	OFFICER COMMENT
A1	P1	
Building setback from frontage must be no less than:	Building setback from frontages must maintain the desirable characteristics of the surrounding landscape and protect the amenity of	The proposed development is located over 700m from the frontage to Florentine Road, easily complying with the Acceptable Solution A1.
20 m.	adjoining lots, having regard to all of the following:	
	(a) the topography of the site;	
	(b) the size and shape of the site;	
	(c) the prevailing setbacks of existing buildings on nearby lots;	
	(d) the location of existing buildings on the site;	
	(e) the proposed colours and external materials of the building;	
	(f) the visual impact of the building when viewed from an adjoining road;	
	(g) retention of vegetation.	
A2	P2	The proposed development is sited more than 50m from
Building setback from side and rear boundaries must be no less than:	Building setback from side and rear boundaries must maintain the character of the surrounding rural landscape,	side and rear boundaries, complying with the Acceptable Solution A2.

	having regard to all of the	[]
50 m.	following:	
	(a) the topography of the site;	
	(b) the size and shape of the site;	
	(c) the location of existing buildings on the site;	
	(d) the proposed colours and external materials of the building;	
	(e) visual impact on skylines and prominent ridgelines;	
	(f) impact on native vegetation.	
A3	Р3	This standard is not
Building setback for buildings for sensitive use must comply with all of the following: (a) be sufficient to provide a separation distance from a plantation forest, Private Timber Reserve or State Forest of 100 m; (b) be sufficient to provide a separation distance from land zoned Significant Agriculture of 200 m.	Building setback for buildings for sensitive use (including residential use) must prevent conflict or fettering of primary industry uses on adjoining land, having regard to all of the following: (a) the topography of the site; (b) the prevailing setbacks of existing buildings on nearby lots; (c) the location of existing buildings on the site; (d) retention of vegetation; (e) the zoning of adjoining and immediately opposite land;	applicable to the proposal.
	(f) the existing use on adjoining and immediately opposite sites;	
	(g) the nature, frequency and intensity of	

	emissions produced by primary industry uses on adjoining and immediately opposite lots; (h) any proposed attenuation measures;	
A4	(i) any buffers created by natural or other features.P4	
Buildings and works must be setback from land zoned Environmental Management no less than: 100 m.	Buildings and works must be setback from land zoned Environmental Management to minimise unreasonable impact from development on environmental values, having regard to all of the following: (a) the size of the site; (b) the potential for the spread of weeds or soil pathogens;	The proposed development is located approximately 150m from the boundary with the Environmental Management Zone to the north, complying with the Acceptable Solution A4.
	 (c) the potential for contamination or sedimentation from water runoff; (d) any alternatives for development. 	

26.4.3 Design		
To ensure that the location and appearance of buildings and works minimises adverse		
impact on the rural landscape.		
Acceptable Solutions	Performance Criteria	OFFICER COMMENT
A1	P1	The proposal complies with
The location of buildings and	The location of buildings and	the Acceptable Solution A1.
works must comply with any	works must satisfy all of the	
of the following:	following:	It is not located on a skyline
		or ridgeline and does not
(a)	(a)	require clearing of
be located within a building	be located on a skyline or	vegetation.
area, if provided on the title;	ridgeline only if:	
(b)		
be an addition or alteration	(i) there are no sites	
to an existing building;	clear of native vegetation	
	and clear of other significant	
(c)	site constraints such as	
be located in and area not	access difficulties or	

require the clearing of native vegetation and not on a skyline or ridgeline.	excessive slope, or the location is necessary for the functional requirements of infrastructure;	
	(ii) significant impacts on the rural landscape are minimised through the height of the structure, landscaping and use of colours with a light reflectance value not greater than 40 percent for all exterior building surfaces;	
	(b) be consistent with any Desired Future Character Statements provided for the area;	
	(c) be located in and area requiring the clearing of native vegetation only if:	
	(i) there are no sites clear of native vegetation and clear of other significant site constraints such as access difficulties or excessive slope, or the location is necessary for the functional requirements of infrastructure;	
	(ii) the extent of clearing is the minimum necessary to provide for buildings, associated works and associated bushfire protection measures.	
A2 Exterior building surfaces must be coloured using colours with a light reflectance value not greater than 40 percent.	P2 Buildings must have external finishes that are non- reflective and coloured to blend with the rural landscape.	Exterior finishes will have a light reflectance value of less than 40 percent in accordance with Acceptable Solution A2.
A3 The depth of any fill or excavation must be no more than 2 m from natural	P3 The depth of any fill or excavation must be kept to a minimum so that the	The proposal will not require any fill or excavation greater than 2m and therefore

ground level, except where required for building foundations.	development satisfies all of the following:	complies with A3.
	(a) does not have significant impact on the rural landscape of the area;	
	(b) does not unreasonably impact upon the privacy of adjoining properties;	
	(c) does not affect land stability on the lot or adjoining areas.	

<u>Codes</u>

E11.0 Waterway and Coastal Protection Code:

This Code applies as the site is located within a Waterway Protection Area. The proposal must satisfy the requirements of the *relevant* standards of the Code as follows:

E11.7.1 Buildings and Works		
To ensure that buildings and works in proximity to a waterway, the coast, identified climate		
change refugia and potable wa	ater supply areas will not have a	n unnecessary or unacceptable
impact on natural values.		
Acceptable Solutions	Performance Criteria	OFFICER COMMENT
A1	P1	The proposal must be
Building and works within a	Building and works within a	assessed against the
Waterway and Coastal	Waterway and Coastal	Performance Criteria.
Protection Area must be	Protection Area must satisfy	
within a building area on a	all of the following:	
plan of subdivision approved		(a) Impacts on natural values
under this planning scheme.	(a) avoid or mitigate	have been considered in
	impact on natural values;	detail by the EPA and
		conditions applied to
	(b) mitigate and manage	mitigate any potential
	adverse erosion,	impacts.
	sedimentation and runoff	
	impacts on natural values;	(b) The proposal will not
		cause erosion. Runoff will be
	(c) avoid or mitigate	managed in accordance with
	impacts on riparian or littoral	the EPA conditions.
	vegetation;	
	/ IX	(c)There will be no impacts
	(d) maintain natural	to vegetation.
	streambank and streambed	
	condition, (where it exists);	(d) The proposal will not
	(a) maintain in stars and	impact the streambank or
	(e) maintain in-stream	streambed.
	natural habitat, such as	(a) The proposal will not
	fallen logs, bank overhangs,	(e) The proposal will not

	rocks and trailing vegetation;	impact in-stream habitat.
	(f) avoid significantly impeding natural flow and drainage;	(f) The proposal does not change the current flow arrangement.
	(g) maintain fish passage (where applicable);	(g) Native fish passage will not be impacted.
	(h) avoid landfilling of wetlands;	(h) The proposal does not involve landfilling of wetlands.
	(i) works are undertaken generally in accordance with 'Wetlands and Waterways Works Manual' (DPIWE, 2003) and "Tasmanian Coastal Works Manual" (DPIPWE, Page and Thorp, 2010), and the unnecessary use of machinery within watercourses or wetlands is avoided.	(i) Use of machinery in watercourses or wetlands is not included in the proposal.
A4 Development must involve no new stormwater point discharge into a watercourse, wetland or lake.	P4 Development involving a new stormwater point discharge into a watercourse, wetland or lake must satisfy all of the following:	The proposal does not involve any new disposal of stormwater into a watercourse, wetland or lake.
	(a) risk of erosion and sedimentation is minimised;	
	(b) any impacts on natural values likely to arise from erosion, sedimentation and runoff are mitigated and managed;	
	(c) potential for significant adverse impact on natural values is avoided.	

Representations

The proposal was advertised for the statutory 14 day period from 8th December 2018 until 24th December 2018. A total of four (4) representations were received, each addressing DA2018/11 and DA2018/12.

The matters raised in the representations are presented in the table below. The issues raised are all in regard to environmental matters which in the case of Level 2 proposal are assessed

and monitored by the EPA. None of the issues raised are within the Council's jurisdiction. The EPA assessment is appended to this report.

Representation 1	
Issues	Officer comments
We are pleased that finally some improvements are to be made to the treatment of effluent from these businesses.	The matters raised are in relation to environmental considerations, which have been assessed by the EPA.
We are however concerned that these proposal are inadequate to address the full extent of the current pollution loads in to the respective catchments. Given the importance of these catchments, for the variety of uses they are put to, including drinking water, we would propose that only a best practice solution should be considered adequate.	
The proposals both make reference to a bio filter process to deal with dissolved nutrients but dismiss this based on size and cost. I would submit that any proposal that does not remove the dissolved nutrients from the water is not fit for purpose and not best practice.	
We urge the EPA to reject these proposals and	
Representation 2	I
Issues	Officer comments
 Hydro Tasmania is pleased to see the confidence Saltas has in the Tasmanian aquaculture industry at this time, and we welcome their investment to upgrade their facilities at Wayatinah and Florentine. However, the water quality of recreational water bodies such as Wayatinah Lagoon and Lake Catagunya during the warm months (November to March) have the potential to be impacted by the disposal of untreated waste, and may adversely impact human health and general the enjoyment of this place if not carefully managed. Consideration must also be given to adverse impacts on water quality from increased biomass volumes to downstream users and environments. We encourage the EPA to establish emissions limits that are appropriate within the environments they are discharging to, and that a suitable monitoring program is instigated, including monitoring of the receiving reservoirs. In addition, we would like to see that the data and reporting from their monitoring program is shared with managers of receiving and downstream waters to improve the understanding of potential impacts on water quality. 	The matters raised are in relation to environmental considerations, which have been assessed by the EPA.
Issues	Officer comments
The Derwent Estuary Program (DEP) welcomes the	The matters raised are in relation to
application made by SALTAS to install drum filters at their	environmental considerations, whicl

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Wayatinah and Florentine Hatcheries. The proposed drum filters will improve the amount of total suspended solids entering the River Derwent from the hatcheries, and any improvement in reducing the amount of solids and any nutrients and organics associated with these. This is a positive development and we are in favour of the proposed activity. We have read the Environmental Effects Reports relating to the applications and have a few questions and concerns that we would like to bring to your attention. We hope that the comments listed below encourage discussions to guarantee the most positive outcomes for water quality improvements in the River Derwent. <u>Environmental Effects Report Wayatinah Hatchery</u> p. 7, 2.1.1 first paragraph statement: "The drum filter is deemed the most feasible system to remove solid particles and reduce the organic and nutrient concentrations of the effluent being released to the receiving environment." This statement is somewhat misleading. Drum filters can certainly remove solids and nutrients bound to particulate matter, but not any dissolved species. It needs to be clear that the proposed drum filters will only address the removal of solids and nutrients associated with those. However, there has been evidence (River Derwent & Catchment Tributary Water Quality Report, DEP, 2018) that dissolved nutrients (particularly dissolved phosphorus, as in PO ₄ -P) are directly released by fish farm hatcheries. Hence, the statement is not correct with regards to dissolved nutrients. Therefore, can we request that a more/an additional system that addresses removal of dissolved nutrients, e.g. via flocculation also be considered? How effective are drum filters in removing solids? 100%?	have been assessed by the EPA.
Will this be monitored downstream? p. 12, 2.1.2 second paragraph statement on construction of diversion infrastructure (bypassing settling pond): "The diversion of the outflow water is not expected to result in any increase of organic nutrients to the river as the existing settlement pond retention time (15-20 mins) is less than the industry standard of one hour." Do we know how 'inefficient' the current settlement pond is? Or is it perhaps better than nothing for the duration of drum filter construction? The additional diversion infrastructure is planned to be permanent and used in the future for maintenance and emergencies. Can we have more information on when this might be the case, how often it would happen and if these events will have to be reported (to EPA, made public)?	
 p. 13, 2.1.3 construction period 5 months starting December 2018 or January 2019; Construction of the drum filter and use of bypass infrastructure would occur during high biomass season. Is this a concern (no settlement pond in use during that time)? Is it better to have the system installed as soon as possible 	

vs. construction during low biomass season and /or high river flow rate season?	
 p. 14-15, 2.1.5 third paragraph, the water from the plate clarifier is returned to the drum filter inlet but is not expected to result in higher concentrations of dissolved nutrients. How often will this be monitored to verify that this is really the case? Could during this process, at any stage, anoxic conditions develop that could potentially increase dissolved concentrations of nutrients? 	
 p. 15-16 sludge removal; The sludge will be removed by a 'licenced waste removal contractor' (e.g. Spectran Group). ls there an approved agreement? The anticipated waste (28.1 wet tonnes/month, is this an average or could this even be more during high biomass season?) is significant, is there a contractor that can deal with this type and volume of waste? Where does it go? Odour issues at waste site? Will the waste removal methods be checked by the EPA or company? 	
p. 20, aquatic habitats and environmental values SALTAS has operated the site since 1987 and effluent flows downstream into the Wayatinah Lagoon which is a declared Hydro Conservation Area. If the proposal's statement on the inefficiency of the settlement pond is true, how much has the Wayatinah Lagoon already acted as a 'natural' settlement pond? What is the impact of 30 years of hatchery solids on the lagoon? (This is not relevant to the proposal but a question that arises from it)	
 p. 34, 3.3.1.2 Water quality guideline values Previous monitoring was conducted irregularly, with more frequent sampling events in 2018. To whom will future monitoring be reported to (EPA, public)? The upper value of the detection limit was used when parameters fell below detection limit. This is obviously an issue for nutrient mass load calculations from the hatchery, because the background concentrations are overestimated. Can raw values from AST be requested and used for this assessment? Is the calculation of Water Quality Guideline Values appropriate and sufficient? Again, if background values fall below detection limits can be sought to establish baseline values and guideline values, e.g. via IC-MS at the University of Tasmania. 	
p. 41, 3.3.2.2 Interim effluent quality limits It seems that effluent quality limits have been set on the hatcheries own data/values. How does this compare with other hatcheries and their effluent limits? Who will review these values after drum filter installation and how will	

exceedances be handled?	
p. 43, 3.3.5 sediment control	
'Installation of [] as required' – What are the requirements, by whom? Who inspects?	
requirements, by whom? who inspects?	
p. 49-50, 3.14 Monitoring and review	
Is the proposed future monitoring sufficient (3 locations	
sampled fortnightly for 6 months, then monthly)? Who will	
this be reported to? Monitoring to align with other	
hatcheries? Should sulfur be included as macro-nutrient for	
future assessments?	
Perpense (Questions regarding SALTAS Eleventing Hatchery	
Response/Questions regarding SALTAS Florentine Hatchery Drum Filter Construction Application	
p. 7, 2.1.1 description, third paragraph	
Description incorrectly copied from Wayatinah application,	
no intake of water from any lake. Is the flow rate at	
Florentine really the same as at Wayatinah?	
Overall, similar issues as in Wayatinah application, which	
 Drum filters do not remove dissolved nutrients. 	
 Timeframe of construction during high biomass season a concern? 	
 Re-circulation of water from clarifier could cause 	
increased nutrient concentrations.	
 Where does the sludge waste go and who will 	
inspect this?	
 Establishment and assessment/review of water 	
quality and effluent guideline values/limits.	
Will future monitoring results be reported to EPA	
and/or available to public?	
Representation 4	
-	
Issues	Officer comments
I am very pleased to learn that environmental	The matters raised are in relation to
improvements for these two hatcheries are progressing. The	environmental considerations, which have been assessed by the EPA.
proposed drum filters should remove a significant proportion of solid wastes that are currently discharged to	nuve been assessed by the EPA.
downstream waterways with minimal treatment.	
However, this is just the first step. Both hatcheries will	
continue to discharge significant loads of dissolved nutrients	
– particularly ammonia and dissolved phosphorus – and	
these discharges will continue to be highest during summer	
and autumn, when water levels are low and risks are	
highest. For freshwater systems, phosphorus removal is	
particularly important, and the near-pristine lakes	
Catagunya and Wayatinah are located immediately	
downstream. There are also a number of downstream	
drinking water supplies, including at Wayatinah,	
Meadowbank and Bryn Estyn. Nutrients can stimulate algal	
blooms in downstream lakes, reservoirs and estuaries.	
These blooms can include both nuisance blooms as well as	

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toxic and/or tasteand-odour producing blue-green algae – such as those that have affected the Hobart water supply at Bryn Estyn over the past few summers. It is difficult to estimate the annual suspended solid, BOD and nutrient loads from the hatcheries from the data provided, but it appears that they would be similar to the loads from two medium-size sewage treatment plants. The proposal that the effluent will be discharged directly to the downstream waterways during the 5-month construction/commissioning period is also of concern. This would occur during the period of highest smolt biomass and during summer/autumn months. The option of reducing biomass - for example by shifting as much of this production as possible to hatcheries with good treatment systems (e.g. Rookwood) - needs to be considered here. Both hatcheries require a more comprehensive strategy, that address both solids and nutrients. This may require biological removal and/or full recirculation with irrigation (as has been implemented at the Rookwood hatchery). Clearly this will be a more expensive strategy, but it is unacceptable to continue discharging poorly treated effluent from these hatcheries – particularly given their location in the upper Derwent catchment where water quality is exceptionally high, and natural values and recreational activities are also very high. As such, I would request and strongly recommend that the applicant provide further detail as to how and when both of these hatcheries will be brought up to AMT standards. It may be sensible to do this as a second stage EER so that at least some basic improvements can be made asap, but a rapid timeline is needed to expedite this. If the sites cannot physically accommodate the necessary upgrades, it may be time to find more suitable sites. Specific comments: • During construction, it appears that the waste stream will essentially by-pass the existing settling ponds for an extended period. Although the ponds are currently not very effective, particularly at Wayatinah, other options should be considered here - including reducing the standing biomass during this period. Further detail about the design of the interim systems are also needed, to ensure they is as effective as possible. • What quantity and proportion of solid wastes will be removed? • What quantity and proportion of particulate and dissolved nutrients will be removed? • As an interim measure, the EER should consider incorporating some additional nutrient removal system following installation of the drum filter. Would alum dosing be effective to further remove phosphorus? Or installation of a wetland polishing system within or associated with the detention basin? There are some good consultants (e.g. Syrinx) who could potentially provide useful advice on this. Water quality data and guideline values: • The data used to develop the draft interim water quality guidelines is patchy and skewed, and there is much better baseline data

available that was collected as part of the Derwent Estuary

Program's Derwent Catchment Monitoring Program over a two-year period (August 2015 to August 2017). This data set also provides good seasonal coverage. I strongly recommend that this data be used as the basis for setting water quality targets for both hatcheries – specifically the
also provides good seasonal coverage. I strongly recommend that this data be used as the basis for setting water quality targets for both hatcheries – specifically the
recommend that this data be used as the basis for setting water quality targets for both hatcheries – specifically the
water quality targets for both hatcheries – specifically the
sites (Elementing a larger Field Farmer) and (Manasting) because it
sites 'Florentine above Fish Farm' and 'Wayatinah Lagoon'.
This data is available on request (and was previously
provided to P Davies). The summary report for this
monitoring program is available at
https://www.derwentestuary.org.au/assets/River_Derwent
_and_Catchment_Tributary_Water_Quality_
Report_2018.pdf • What is the source of the data used to
generate the 'Upper Derwent Water Quality Guidelines',
and how were these derived? These may not be suitable –
particularly for the for the Florentine. The Florentine River is
somewhat unusual in the Derwent system, with relatively
high conductivity and nitrate-nitrite levels, associated with
the upstream dolomite geology. NOx levels in the Florentine
also show strong seasonal variations. • The TSS and BOD
values for the settlement pond outfall and the downstream
sampling point are very similar - both at at Wayatinah and
Florentine - and not a lot higher than the upstream levels,
which is unexpected. Why is this? • Furthermore, at
Wayatinah, the median values for a number of parameters
appear to be higher at the downstream site than at the
settling pond. Why is this? Is there much in the way of
summer flow in this section of the Derwent, or this the flow
primarily from the hatchery? (by way of pumped flow from
Wayatinah).
Other • The section on therapeutic treatments is
disturbingly vague, particularly as the hatchery is upstream
of several public drinking water supplies and important
recreational fisheries. What quantities are used and when?
In particular, which of these therapeutics are used in the
flow through systems, and how much enters receiving
waters? • The ASC-required BFEIA and the biannual
macroinvertebrate survey results should be provided here
to better document conditions upstream and downstream
of the hatcheries. When were these surveys done? Do they
include summer/autumn low flow conditions, when biomass
levels at the hatcheries are highest. • Finally, please confirm
that the annual environmental reports will be made
available to the public.

Conclusion

The proposal for a drum filter at the SALTAS salmon hatchery at 675 Florentine Road, Florentine is assessed to comply with the applicable standards of the Rural Resource Zone and Codes of the *Central Highlands Interim Planning Scheme 2015* as outlined in the body of this report.

Aquaculture for finfish is a Level 2 Activity and environmental assessment of this proposal has been undertaken by the EPA, in accordance with the statutory requirement.

The proposal was advertised for public comment and four (4) representations were received. The concerns of the representor have been addressed in the EPA assessment, as they are in regard to environmental matters.

Overall, it is considered that the proposal is acceptable and is recommended for approval.

Recommendation

Moved Clr Poore

Seconded Clr Cassidy

The proposal is assessed to substantially comply with the requirements of the Central Highlands Interim Planning Scheme 2015 and so in accordance with section 57 of the Land Use Planning and Approvals Act 1993, the Planning Authority is recommended to approve the application for Resource development (Aquaculture) – Drum Filter Upgrade to Hatchery at 675 Florentine Road, Florentine.

Recommended Conditions

General

- 1) The use or development must be carried out substantially in accordance with the application for planning approval, the endorsed drawings and with the conditions of this permit and must not be altered or extended without the further written approval of Council.
- 2) This permit shall not take effect and must not be acted on until 15 days after the date of receipt of this letter or the date of the last letter to any representor, which ever is later, in accordance with section 53 of the land Use Planning And Approvals Act 1993.
- 3)

The person responsible for the activity must comply with the conditions contained in the Environmental Licence No 9840/1 issued by the EPA pursuant to Section 42Q(3) of the Environmental Management and Pollution Control Act 1994.

Services

4) The developer must pay the cost of any alterations and/or reinstatement to existing services, Council infrastructure or private property incurred as a result of the development. Any work required is to be specified or undertaken by the authority concerned.

Construction Amenity

5) The development must only be carried out between the following hours unless otherwise approved by the Council's Manager of Development and Environmental Services:

Monday to Friday 7:00 a.m. to 6:00 p.m. Saturday 8:00 a.m. to 6:00 p.m. Sunday and State-wide public holidays 10:00 a.m. to 6:00 p.m.

- 6) All works associated with the development of the land shall be carried out in such a manner so as not to unreasonably cause injury to, or prejudice or affect the amenity, function and safety of any adjoining or adjacent land, and of any person therein or in the vicinity thereof, by reason of:
 - a. Emission of noise, artificial light, vibration, odour, fumes, smoke, vapour, steam, ash, dust, waste water, waste products, grit or otherwise.
 - b. The transportation of materials, goods and commodities to and from the land.
 - c. Obstruction of any public roadway or highway.

- d. Appearance of any building, works or materials.
- e. Any accumulation of vegetation, building debris or other unwanted material must be disposed of by removal from the site in an approved manner. No burning of such materials on site will be permitted unless approved in writing by the Council's Manager of Development and Environmental Services.
- 7) The developer must make good and/or clean any road surface or other element damaged or soiled by the development to the satisfaction of the Council's Manger of Works and Technical Services.

The following advice applies to this permit:

b) This permit does not imply that any other approval required under any other legislation has been granted.

Carried

For the Motion: Clr Allwright, Clr Cassidy & Clr Poore

7.0 OTHER BUSINESS

Nil

8.0 CLOSURE

There being no further business the meeting closed at 9.20am

AllUrbanPlanning

4 January 2018

Lyn Eyles General Manager Central Highlands Council 6 Tarleton Street, Hamilton TAS 7140 PO Box 20, Hamilton TAS 7140

Dear Madam

SALTAS Hatchery Wayatinah – New Development Application for installation of Drum Filter

Please see attached an application for a planning permit for installation of a drum filter to improve the environmental performance of Saltas' existing hatchery at 289 Wayatinah Road, Wayatinah. The site (CT 129645/1) is owned by Saltas.

Proposal

The proposal is described on the attached plans and Construction and Environmental Management Plan prepared by Saltas. The drum filter is a concrete chamber approximately 1.2m deep x 7m x 8m to be located within the existing pond. The purpose is to improve the environmental performance of the effluent outfall of the salmon hatchery.

The drum filter is designed to achieve filtration of 80 microns, removing solid particles and organics from the effluent stream before they enter the environment.

Planning Scheme

The site is zoned Rural Resource under the Central Highlands Interim Planning Scheme 2015. The proposed upgrades to the existing aquaculture facility fall within the Resource Development Use class which is a Permitted Use in the zone.

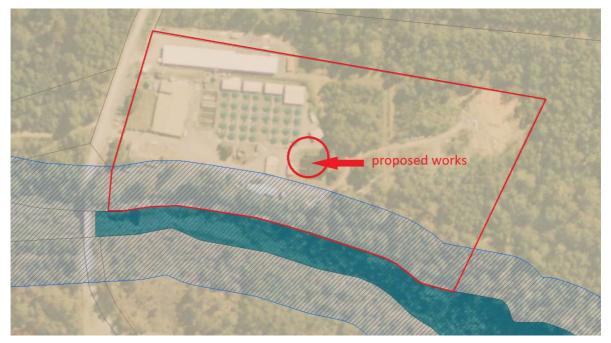


Figure 1 – Site Plan showing planning scheme zoning and overlays (Source: annotated from theList).

Use Standards (26.3)

There are no applicable Use Standards.

Development Standards (26.4)

Building Height (26.4.1)

• The drum filter chamber is to be installed primarily in ground and comfortably complies with the permitted height of 10m under A1.

Setback (26.4.2)

- The proposal comfortably complies with the 20m permitted frontage setback under A1 with a setback of approximately 150m.
- The buildings and works are closer than 50m from the River Derwent frontage of the site (approximately 40m) and are to be assessed under P2. In this case the proposal is considered to satisfy P2 in that the works are essentially below ground within an existing facility and will have negligible impact on the character of the surrounding rural landscape.
- A3 N/A
- The proposal is to be assessed under P4 in that the buildings and works will be setback within 100m (approximately 40m) from the Environmental Management

Zone. In this case the proposal is supported by a comprehensive Construction and Environmental Plan and will ensure that unreasonable impact on environmental values will be minimised. P4 is satisfied.

Design (26.4.3)

- The proposal is located within the existing hatchery site and will not require the clearing of native vegetation and is not on a skyline or ridgeline. The proposal complies with A1(c).
- The proposed concrete construction will comply with the requirement of A2 for exterior surfaces with a light reflectance value not greater than 40%. This requirement would logically be included as a condition on the planning permit.
- The proposal will not require fill or excavation, other than for foundations, greater than 2m and complies with A3.

Planning Scheme Codes

The footprint of the proposed works is not affected by any overlay on the planning scheme maps (see Figure 1 above).

There are no other planning scheme codes of particular relevance to the proposal. However, to the extent that they apply the proposal is considered to satisfy all requirements.

Conclusion

The proposed drum filter upgrade will improve the performance of the existing aquaculture activity which is a permitted, Resource Development Use on the site.

Subject to adhesion to the procedures set out in the accompanying Construction and Environmental Management Plan the proposal will have minimal impact on the rural landscape and environmental values of the surrounding area.

The proposal is considered to satisfy all relevant planning scheme standards.

I trust Council has sufficient information to determine this application however please contact the undersigned as necessary for further information or clarification.

Yours sincerely

Frazer Read **Principal** All Urban Planning Pty Ltd



Development & Environmental Services 19 Alexander Street BOTHWELL TAS 7030

Phone: (03) 6259 5503 Fax: (03) 6259 5722

www.centralhighlands.tas.gov.au

OFFICE	USE	ONLY

Application No.:

Property ID No.: Date Received:

Application for Planning Approval Use and Development

Use this form to apply for planning approval in accordance with section 57 and 58 of the Land Use Planning and Approvals Act 1993

Applicant / Ov	vner Details:					
Applicant Name	All Urban Planning Pty Ltd obo Saltas Pty Ltd					
Postal Address	19 Mawhera Avenue	Phone No:			e No: 0400109582	
	Sandy Bay		7005	Fax	x No:	
Email address	frazer@allurbanplanning.com.au					
Owner/s Name (if not Applicant)						
		Phone	e No: 0404309388			
	Wayatinah		7140	Fax	x No:	
Email address:	ben.wagner@tassal	.com.au				
Description of	proposed use and	or developme	nt:			
Address of new use and development:	289 Wayatinah Road, W	/ayatinah				
Certificate of Title No:	Volume No 129645		Lot No:	1		
Description of proposed use or development:	roposed use or					arm Building / Carport /
Current use of land and buildings:	aquaculture hatchery			on this t If yes, w	Eg. Are there any existing buildings on this title? If yes, what is the main building	
-					used as?	
Proposed Material	What are the proposed external wall colours	concrete		What is the pr	oposed roof colour	N/A
	What is the proposed new floor area m ² .	N/A		What is the es all the new wo	timated value of ork proposed:	\$ 200,000

Is proposed development to be staged:	Yes 🗖	No	X Ticl	k 🗸
Is the proposed development located on land previously used as a tip site?	Yes 🗖	No	X	
Is the place on the Tasmanian Heritage Register?	Yes 🗖	No	X	
Have you sought advice from Heritage Tasmania?	Yes 🗖	No	N.	
Has a Certificate of Exemption been sought for these works?	Yes 🗖	No	N.	

Signed Declaration

I/we hereby apply for a planning approval to carry out the use or development described in this application and in the accompanying plans and documents, accordingly I declare that:

- 1. The information given is a true and accurate representation of the proposed development. I understand that the information and materials provided with this development application may be made available to the public. I understand that the Council may make such copies of the information and materials as, in its opinion, are necessary to facilitate a thorough consideration of the Development Application. I have obtained the relevant permission of the copyright owner for the communication and reproduction of the plans accompanying the development application, for the purposes of assessment of that application. I indemnify the Central Highlands Council for any claim or action taken against it in respect of breach of copyright in respect of any of the information or material provided.
- 2. In relation to this application, I/we agree to allow Council employees or consultants to enter the site in order to assess the application.
- I am the applicant for the planning permit and <u>I have notified the owner/s of the land in writing</u> of the intention to make this application in accordance with Section 52(1) of the *Land Use Planning Approvals Act 1993* (or the land owner has signed this form in the box below in "Land Owner(s) signature); *Applies where the applicant is not the Owner and the land is not Crown land or owned by a council, and is not land administered by the Crown or a council.*

Applicant Signature (if not the Owner)	Applicant Name <i>(Please print)</i> Frazer Read obo All Urban Planning Pty Ltd	Date 1 March 2018
Land Owner(s) Signature	Land Owners Name (please print)	Date
Land Owner(s) Signature	Land Owners Name (please print)	Date

Information & Checklist sheet

				\checkmark
1.	A cor	nplete	ed Application for Planning Approval – Use and Development form.	
			ure that the information provides an accurate description of the proposal, has the correct details and is signed and dated by the applicant.	
2.	A cur	rent c	opy of the Certificate of Title for all lots involved in the proposal.	
	The t	itle de	tails must include, where available, a copy of the search page, title plan, sealed plan or diagram	
	and a	any sc	hedule of easements (if any), or other restrictions, including covenants, Council notification or	
	cond	itions	of transfer.	
3.	Two	(2) cor	pies of the following information -	
0.	a)	• • •	nalysis of the site and surrounding area setting out accurate descriptions of the following -	
	<i></i> /	(i)	topography and major site features including an indication of the type and extent of native	
		()	vegetation present, natural drainage lines, water courses and wetlands, trees greater than 5	
			metres in height in areas of skyline or landscape importance and identification of any natural	
			hazards including flood prone areas, high fire risk areas and land subject to instability;	
		(ii)	soil conditions (depth, description of type, land capability etc);	
		(iii)	the location and capacity of any existing services or easements on the site or connected to the	
			site;	
		(iv)	existing pedestrian and vehicle access to the site;	
		(v)	any existing buildings on the site;	
		(vi)	adjoining properties and their uses; and	
		(vii)	soil and water management plans.	
	b)		e plan for the proposed use or development drawn, unless otherwise approved, at a scale of not	
		less t	han 1:200 or 1:1000 for sites in excess of 1 hectare, showing -	
		(i)	a north point;	
		(ii)	the boundaries and dimensions of the site;	
		(iii)	Australian Height Datum (AHD) levels;	
		(iv)	natural drainage lines, watercourses and wetlands;	
		(v)	soil depth and type;	
		(vi)	the location and capacity of any existing services or easements on the site or connected to the	
			site;	
		(vii)	the location of any existing buildings on the site, indicating those to be retained or	
		()	demolished, and their relationship to buildings on adjacent sites, streets and access ways;	
			the use of adjoining properties;	
		(ix)	shadow diagrams of the proposed buildings where development has the potential to cause overshadowing;	
		(x)	the dimensions, layout and surfacing materials of all access roads, turning areas, parking areas	
			and footpaths within and at the site entrance;	
		(xi)	any proposed private or public open space or communal space or facilities;	
		(xii)	proposed landscaping, indicating vegetation to be removed or retained and species and	
1			mature heights of plantings; and	
		(xiii)	methods of minimizing erosion and run-off during and after construction and preventing contamination of storm water discharged from the site.	
	c)	Plane	and elevations of proposed and existing buildings, drawn at a scale of not less than 1:100,	
1	C)		ving internal layout and materials to be used on external walls and roofs and the relationship of	
1			levations to natural ground level, including any proposed cut or fill.	
\vdash				
4.			ubmission supporting the application that demonstrates compliance with the relevant parts of	
1	the Act, State Polices and the Central Highlands Interim Planning Scheme 2015, including for industrial and			
1	commercial uses, the hours of operation, number of employees, details of any point source discharges or omissions, traffic volumes generated by the use and a Traffic Impact Statement where the development is			
			traffic volumes generated by the use and a Traffic Impact Statement where the development is	
	-		eate more than 100 vehicle movements per day.	
5.			fees payable to Council. An invoice for the fees payable will be issued once application has	
	been	receiv	ved.	

Information

If you provide an email address in this form then the Central Highlands Council ("the Council") will treat the provision of the email address as consent to the Council, pursuant to Section 6 of the Electronic Transactions Act 2000, to using that email address for the purposes of assessing the Application under the Land Use Planning and Approvals Act 1993 ("the Act").

If you provide an email address, the Council will not provide hard copy documentation unless specifically requested.

It is your responsibility to provide the Council with the correct email address and to check your email for communications from the Council.

If you do not wish for the Council to use your email address as the method of contact and for the giving of information, **please tick** \checkmark the box

Heritage Tasmania

If the Property is listed on the Tasmanian Heritage Register then the Application will be referred to Heritage Tasmania unless an Exemption Certificate has been provided with this Application. (Phone 1300 850 332 or email enquires@heritage.tas.gov.au)

TasWater

Depending on the works proposed Council may be required to refer the Application to TasWater for assessment (Phone 136992)



Saltas Drum Filter Project Construction and Environmental Management Plan Revision A 22/12/2017

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Appendix List

Appendix A – Wayatinah Drum Filter General Arrangement Drawings
Appendix B – Florentine Drum Filter General Arrangement Drawings
Appendix C – Saltas Environmental Policy

Document Control

Version	Date	Recipients	Method
Rev A	22/12/2017	Central Highlands Council	Included in DA Submission

Prepared By: Ben Wagner Project Manager - Engineering Tassal Operations Pty Ltd On behalf of Salmon Enterprises of Tasmania Pty Limited



Introduction

Salmon Enterprises of Tasmania Pty Limited (Saltas) is an industry owned salmon hatchery operation which produces salmon eggs, fry and smolt. The operation consists of two semi flowthrough hatchery facilities situated nominally 7km apart near the township of Wayatinah.

Saltas is installing drum filters on the effluent outfall of each hatchery. The works shall be undertaken as part of the Saltas Drum Filter Project.

Installation of the drum filters shall be undertaken as part of Saltas commitment to the Aquaculture Stewardship Council (ASC) in maintaining certification against the Salmon Standard. ASC certification and implementation of the drum filers are indicators of Saltas ongoing commitment to improve environmental performance across its operations.



Site Plan

Saltas consists of two separate hatchery facilities situated near Wayatinah. Hatchery details and drum filter project locations are offered as follows:



Image 1 – Saltas Locality plan



 SALMON ENTERPRISES OF TASMANIA PTY LIMITED
 ABN 25 009 550 145

 Administration: 289 Wayatinah Road, Wayatinah TAS 7140 Australia

 PO Box 1 Wayatinah TAS 7140 Australia Telephone: (03) 6289 3280 Fax: (03) 6289 3290

	Phone	Postal Address	Physical Address
Wayatinah Hatchery (WH)	(+61 3) 6289 3280	PO Box 1 Wayatinah TAS 7140	289 Wayatinah Road Wayatinah 7140
		Australia	



Image 2 – Wayatinah Hatchery

SALTAS

	Phone	Postal Address	Physical Address
Florentine	(+61 3) 6289 3280	PO Box 1	675 Florentine Road
Hatchery (FH)		Wayatinah TAS 7140	Wayatinah 7140
		Australia	



Image 3 – Florentine Hatchery



Construction zones for each site are adjacent to the settling ponds on the outflow of the hatcheries.

For Wayatinah Hatchery drum filter general arrangement refer Appendix A.

For Florentine Hatchery drum filter general arrangement refer Appendix B.

Saltas Environmental Policy

Saltas is committed to ongoing improvement of environmental performance and operational practices. Refer Appendix C for Saltas Environmental Policy.

Intended outcomes from the C.E.M.P.

The intended outcomes from this CEMP are to:

- Meet government and community expectations for protection of the environment;
- Identify potential environmental impacts from the project's activities;
- Develop and implement control mechanisms to alleviate any impacts;
- Educate and communicate with all personnel on site as to their environmental responsibilities during the construction of the project;
- Minimise the inconvenience incurred by the local community during the project's implementation; and
- Ensure the construction site is made good and handed over to operating personnel in good condition.

Project Description

To meet the requirement of environmental assessment against the ASC Salmon Standard, Saltas is installing drum filters on the effluent outfall of its two salmon hatcheries. The drum filters shall achieve filtration of 80 microns, removing solid particles and organics from the effluent stream before they enter the environment.

The effluent outfall, prior to the settling pond, has been selected as the most suitable location for the drum filters due to the hydraulic arrangement of the hatchery infrastructure. At this location, all effluent streams from the hatchery meet to create a single flow to the settling pond. Capturing the solids in the effluent flow prior to settling ensures the solid particles remain bound and in good condition for micron filtration.

The proposal has been assessed against the Central Highlands Interim Planning Scheme as being a permitted use. A discretionary Development Application (DA) is required due to the offsets from the natural water coarse and the property boundary.

Saltas recognises that quality control of effluent is a key issue for the ongoing management of receiving environment. This project allows Saltas to achieve a level of filtration that is equivalent with worlds best practice for flowthrough hatcheries of this nature.



Environmental Description of Site and Project

Wayatinah

Situated on the River Derwent, Wayatinah Hatchery is built on private land owned by Saltas.

Water is directed through the hatchery from the upstream inlet weir which feeds 47 fish tanks and two Recirculation Aquaculture Systems (RAS). Flowthrough water leaving the fish tanks is channelled to a common pipe before entering the settling pond. From the settling pond water is returned to the natural water course.

The works zone shall be directly adjacent to, in and around the existing settling pond. For a percentage of the works, the settling pond shall be diverted to allow construction to be carried out within the pond. During the period of the diversion 100% of the hatchery through flow shall be diverted to the river, for an estimated 6 week period, or as defined by the Contractor's approved construction schedule.

The construction works zone shall be restricted to the existing used areas adjacent to the settling ponds. Traffic movement shall be restricted to the existing traffic paths. No construction works shall be undertaken in natural undisturbed areas.

Some excavation shall be undertaken to establish footings for the new concrete chambers. All excavation spoil shall be kept on site. Excavation material shall be used where possible as compacted backfill. Any remaining excavation material shall be stored in existing stockpile locations on site.

Sedimentation shall be minimised during the works. Silt fences, silt traps and hay bales shall be used to prevent sediment entering the environment. The majority of the works shall be carried out in the settling pond. Sediment occurring in the settling pond shall remain in the settling pond due the flowthrough water diversion.

The construction zone shall be monitored and assessed during the construction period. Listed below are the environmental criteria that will be monitored and managed against during the project:

- Erosion and sediment control
- Dust
- Noise
- Waste disposal
- Flora and fauna
- Fire Management
- Hazardous chemicals
- Cultural heritage

Florentine

Florentine Hatchery is on a Forestry Tasmania lease, situated on a strip of land straddled by the River Derwent to the north and the Florentine Rover to the south.

Water is directed through the hatchery from the upstream inlet weir which feeds 32 fish tanks and one Recirculation Aquaculture Systems (RAS). Flowthrough water leaving the fish



tanks is channelled to a common pipe before entering the settling pond. From the settling pond water is returned to the natural water course.

The works zone shall be directly adjacent to, in and around the existing settling pond. A section of the settling pond shall be dammed during the construction period (sandbag or other) to create a dry construction zone. The drum chamber works shall be contained within the dry construction area.

The construction works zone shall be restricted to the existing used areas adjacent to the settling ponds. Traffic movement shall be restricted to the existing traffic paths. No construction works shall be undertaken in natural undisturbed areas.

Excavation shall be undertaken to establish footings for the new concrete chambers. All excavation spoil shall be kept on site. Excavation material shall be used where possible as compacted backfill. Any remaining excavation material shall be stored in existing stockpile locations on site.

Sedimentation shall be minimised during the works. Silt fences, silt traps and hay bales shall be used to prevent sediment entering the environment. The majority of the works shall be carried out in the dry construction area adjacent to the settling pond. Sediment occurring in the dry construction area shall remain in the dry construction area due the sandbag (or other) dam wall.

The construction zone shall be monitored and assessed during the construction period. Listed below are the environmental criteria that will be monitored and managed against during the project:

- Erosion and sediment control
- Dust
- Noise
- Waste disposal
- Flora and fauna
- Fire Management
- Hazardous chemicals
- Cultural heritage

Roles and Responsibilities

All key personnel involved in the Project shall ensure that all the environmental objectives for the Project are implemented. The responsibilities are summarised below:

Project Resources and Responsibilities		
Project Manager	Approve the CEMP and subsequent revisions	
	Ensure works proceed in accordance with all environmental approvals & permits	
	Ensure all non-compliance events are investigated and corrected	



	Ensure all design plans produced for the project are mindful of CEMP requirements, in particular permanent measures for erosion and sediment control
	Action an appropriate response in accordance with company procedure in the event of an environmental incident
	Review and acknowledge periodic environmental inspection reports
Site Manager	Monitor and report all environmental incidents to the Project Manager
	Ensure all site personnel & subcontractors are aware of their responsibilities
	Ensure personnel assigned to perform environmental tasks are competent to do so or are under the direct supervision of a competent person
	Ensure all staff and subcontractors comply with the CEMP
	Manage installation of appropriate environmental controls
	Stop work or otherwise mitigate the effect of an activity that is causing significant uncontrolled or unexpected environmental harm
	Ensure all project personnel receive environmental inductions and training
Saltas and Contractor	Adhere to the directives of this CEMP and the company's management system
Employees	Act in an environmental responsible manner
	Report incidents to relevant supervisors as soon as practicable
	Satisfactorily perform all environmental works as specified by contractual arrangements or recognised authority
	Participate in subsequent investigations and implementation or preventative action(s) as required
	Attend all required environmental awareness induction and training sessions
	Recognise the authority of the site manager, particularly in the event of an actual or perceived environmental non-compliance, or when remedial action is indicated



Standards and Codes

Listed below are legislative and other requirements which may be applicable to the project. The Project Manager shall ensure all necessary approvals, permits and licences have been obtained for the project and all contractors are aware of their obligations.

	Legislative or other requirements
Environment	Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act) (Commonwealth)
Air Quality	State Policy on Air Quality
	Nation Environmental Protection (Air Toxics) Measure Commonwealth
	National Environment Protection (Ambient Air Quality) Measure (Commonwealth)
	Environment Protection Policy (Air Quality) 2004
Land Contamination	National Environment Protection (Assessment on Site Contamination) Measure (Commonwealth)
Noise Quality	Draft Environment Protection Policy (Noise) and Impact Statement December 2006
Dangerous Goods	Dangerous Goods (and regulations) Act 1998
Industrial Chemicals	Industrial Chemicals (Notification and Assessment) Act 1989 (Commonwealth)
Flora and Fauna	Nature Conservation Act 2002
	Threatened Species Protection Act 1995
	Wild Life Regulations 1999
Weed Management	Weed Management Act 1999
Greenhouse Gases & Ozone depleting	Ozone Protection and Synthetic Greenhouse Gas Management Act 1989 (Commonwealth)
substances	Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995 (Commonwealth)
Cultural Heritage	Aboriginal Relics Act 1975
	Historic Cultural Heritage Act 1995
Land Use Planning	Land Use Planning and Approvals Act 1993
Health and Safety Issues	Public Health Act 1997
Fire Risk	Fire Service Act 1979
	General Fire Regulations 2000
Water Quality	State Policy on Water Quality Management 1997
	Pollution of Waters by Oil and Noxious Substances Act 1987
	Water Management Regulations 1999



	Australian and New Zealand Guidelines for Fresh and Marine Water Quality. ANZECC/ARMCANZ, October 2000
	State Guidelines on treated effluent reuse
	Australian and New Zealand Guidelines for monitoring and reporting. ANZECC/ARMCANZ, 2000
Others	National Environment Protection (National Pollutant Inventory) Measure (Commonwealth)
	Sewers and Drains Act 1954
	State Policies and Projects Act 1993
	Plumbing Regulations 2004
	DPIWE Guidelines for Recycled Water and Sewerage Management Plan
	Forest Practices Act 1985
	Forestry Act 1920

Environmental Mitigation Measures

The next section describes environmental mitigation measures that will be implemented to ensure the Project has a minor environmental impact.

1 Soil and Water Management			
Environmental Objectives	Ensure there is no impact on the River Derwent and the Florentine River associated with alterations to surface or ground water regimes		
	Ensure compliance with relevant health and environmental regulations		
	Minimise potential for flooding with effective surface water management		
	Excavated spoil and contaminated soil to be reused or disposed of appropriately		
	No changes in water quality parameters as a result of construction		
Legislation	State Policy on Water Quality Management 1997		
	Pollution of Waters by Oil and Noxious Substances Act 1987		
	Water Management Act 1999		
	Water Management Regulations 1999		
Guidelines Standards and	ANZECC/ARMCANZ, October 2000 guidelines		
other References	UGL Soil and Water Control Standard		
	Wash Down Guidelines for Weed and Disease Control Edition 1 (DPIWE 2004)		

Action Mitigation Measures

Responsibility



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1.1	All construction machinery will be cleaned prior to and on leaving site to remove all soil and botanic matter as described in Wash Down Guidelines for Weed and Disease Control Edition 1 (DPIWE,2004)	Contractors
1.2	All spoil stockpiles will be maintained to industry best practice through the use of sediment fences, earth bunds and appropriate soil stabilisation techniques. This includes re-vegetating stockpiles.	Contractors
1.3	Controls to be installed to manage the movement of clean and contaminated water around the site. This will include the installation of appropriate sized sediment control basins, gross pollutant traps and other erosion and sediment control measures (sediment fencing, filter socks etc.) as required.	Site Manager
	All storm-water management infrastructure is to be regularly monitored and maintained.	
1.4	Fuel and chemicals to be stored in accordance with AS 1940	Contractors
1.5	Adequate spill control and clean up equipment will be available on site in the case of a chemical spill. Site personnel will be trained in correct techniques for deliver and transfer of fuels.	Contractors
1.6	All site personnel will be trained in spill response and containment	Contractors
1.7	Areas housing equipment containing liquids and oils that could prove detrimental to the environment will be designed in accordance with the Storage and Handling of Flammable and Combustible Liquids – AS - 1940	Site Manager

2 Flora and Fauna Manage	ement
Environmental Objectives	Minimise the effect of the project on significant flora and fauna species and their habitat.
	Minimise the removal of native and screening vegetation.
	Ensure design and procurement activities incorporate requirements for noise management during construction.
Target	Zero death and injury to native fauna.
	Significant reduction in weed population on the construction site and no spreading of weeds off site.
	No additional vegetation clearing other than that specified.
Legislation	Environment Protection and Biodiversity Conservation Act (EPBC) 1999 (Commonwealth)
	Threatened Species Protection Act (TSPA) 1995
	Weed Management Act 1999
Guidelines Standards and other References	DPIWE 2004 Wash down Guidelines for Weed and Disease Control – Edition 1
	National strategy for the Conservation of Australia's Biological Diversity



(Commonwealth)

Threatened Species Strategy for Tasmania

Draft Tasmania's Nature Conservation Strategy

Action	Mitigation Measures	Responsibility
2.1	A vegetation management plan has been prepared and will be progressively implemented throughout the project	Site Manager
2.2	No vegetation outside the construction zone will be cleared, damaged, trimmed or removed.	Site Manager
2.3	Faunal impacts shall be considered as part of the site lighting plan.	Project Manager
2.4	Vegetation that is removed and is taken off site will be disposed of in manner that does not spread weed infestations.	Contractor
2.5	Weed infested material will not be used as mulching to reduce the propagation of weeds.	Contractor
2.6	All construction machinery will be cleaned prior to and on leaving site to remove all soil and botanic matter as described in Wash Down Guidelines for Weed and Disease Control Edition 1 (DPIWE,2004)	Contractor
2.7	During the construction phase an on going weed management program will be undertaken to minimise weeds.	Site Manager
2.8	Gravel and fill etc. will be sourced from areas considered low risk of importing phytophthora to site.	Contractor
2.9	Fauna deaths and feral animal sightings are to be reported to the Site Manager immediately.	Contractor
2.10	No clearing of existing vegetation outside the construction zone will be allowed without express permission of the Site Manager	Contractor

3 Visual, Landscape and Rehabilitation Management		
Environmental Objectives Ensure that the impacts to the visual amenity resulting from the development are minimised.		
Target	No community complaints about the visual amenity of the site	

Action	Mitigation Measures	Responsibility
3.1	Finishes will be selected to reduce glare and reflection, thus reducing the hatchery's visibility and visual impact.	Project Manager
3.2	A vegetation management plan has been prepared and will be progressively be implemented throughout the project	Project Manager



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3.3	No vegetation outside the construction zone will be cleared,	Site Manager
	damaged, trimmed or removed.	

4 Noise and Vibration Management		
Environmental Objectives	Ensure design and procurement activities incorporate requirements for noise management during construction	
	Ensure that noise impacts of construction activities comply with statutory requirements and the Pollution Control (Miscellaneous Noise) Regulations 2004	
	Ensure that vibration impacts from construction activities are acceptable	
Target	No complaints as a result of construction noise or vibration	
	Compliance to all construction noise limits	
Legislation	Environmental Management and Pollution Control (Miscellaneous Noise) Regulations 2004	
Guidelines Standards and other References	Draft Environmental Protection Policy (Noise) and Impact Statement December 2006	

Action	Mitigation Measures	Responsibility
4.1	Saltas will consider potential noise sources and levels as part of the detailed design and identify any necessary additional noise reduction measures to ensure that noise levels are maintained at the target levels.	Project Manager
4.2	Unless otherwise approved by relevant authorities all construction activities, including entry and departure of vehicles shall be restricted to the hours 7.00am to 7.00pm (Monday to Friday) and 8.00am to 5.00pm (Saturdays) and at no time on Sundays.	Site Manager
4.3	Work outside normal working hours include:	Site Manager
	 The delivery of materials which is required outside these hours for safety or emergency reasons. 	
	 Emergency work to avoid the loss of life, property damage or environmental damage. 	
	 Any other work agreed between Saltas and neighbours. 	
4.4	Properly maintain vehicles and equipment to ensure noise source levels are not exceeded. Monitor excessively noisy equipment and modify or remove from site if noise levels are exceeded.	Contractors
4.5	Ensure construction equipment has adequate noise and vibration control equipment and is maintained in good working order. Measures include:	Contractor



- Earth moving equipment fitted with residual class mufflers
 Acoustic enclosures for any diesel generators and/or air
 - compressors.
 - Where possible, use high pressure hydraulic systems instead of pneumatic hammers to split rock.

4.6	All noise complaints will be immediately referred to the Project Manager who will record and facilitate remedial measures.	Site Manager
4.7	Noise monitoring during construction phase to check compliance.	Site Manager

5 Air Quality Management	
Environmental Objectives	Ensure design and procurement activities incorporate requirements for air quality management during construction phase.
	Ensure that dust generated during construction does not cause any environmental or human health problems or impacts on the amenity.
	Use all reasonable and practical measures to minimise airborne dust.
Target	No significant environmental, health or amenity impacts attributed to site works
Legislation	State Policy on Air Quality
Guidelines Standards and other References	National Environment Protection (Air Toxics) Measure (Commonwealth)
	National Environment Protection (Ambient Air Quality) Measure (Commonwealth)
	Environment Protection Policy (Air Quality) 2004

Action	Mitigation Measures	Responsibility
5.1	Surface relevant long term work and heavy vehicle movement areas, including internal haul roads, with compacted gravel to minimise vehicle generated dust emissions.	Site Manager
5.2	Use water tanker and water sprays to suppress dust when necessary.	Contractors
5.3	Spray stockpiles with water to suppress dust when necessary.	Contractors
5.4	Service and maintain all plant and equipment powered by internal combustion engines to ensure emissions comply with the relevant legislation.	Contractors
5.5	Loads on trucks to be covered to prevent dust generation.	Contractors



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5.6	Vehicles not to be left idling unnecessarily.	Contractors

6 Archaeology and Heritage Management		
Environmental Objectives	Minimise the effect of the project on Aboriginal and non-Aboriginal cultural heritage sites and areas.	
	Ensure the protection and management of Aboriginal cultural heritage sites, places and objects in accordance with legislation.	
	Ensure the protection of Non-Indigenous historic heritage places in accordance with legislation.	
Target	No damage to identified Aboriginal artefacts.	
	Compliance with legislation	
	Full documentation of any found artefacts	
	No community complaints about the visual amenity of the site	
Legislation	Historic Cultural Heritage Act 1995	

Action	Mitigation Measures	Responsibility
6.1	No works to be undertaken in the vicinity of an identified artefact until the area is assessed and a permit is issued.	Site Manager
6.2	No works to be undertaken in the vicinity of any other identified Aboriginal cultural heritage until an assessment has been completed and a permit issued.	Site Manager
6.3	Any material identified by an Aboriginal Heritage Officer during the initial ground breaking process to be recorded.	Site Manager
6.4	No vegetation outside the construction zone will be cleared, damaged, trimmed or removed.	Site Manager

7 Hazardous Substances and Dangerous Goods		
Environmental Objectives Ensure dangerous goods are handled and stored in a manner that minimises the potential for spill		
Target	No significant impacts as the result of a spill or lack of containment.	
	Storage of all chemicals as per As 1940	
Legislation	Dangerous Goods Act 1998 (and Regulations)	
	Radiation Protection Act 2005	



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Action	on Mitigation Measures	
7.1	All fuel, lubricants and oil to be stored in bundled facilities in accordance with the relevant Australian Standard	Contractors
7.2	A detailed list of chemicals approved for use on site, along with the Site Manage relevant Material Safety Data Sheet (MSDS) will be kept in the site office.	
7.3	Hazardous materials are to be managed in accordance the guidelines provided on the relevant MSDS.	Contractors
7.4	All vehicles will be adequately maintained to minimise the potential for leaks.	Contractors
7.5	All plant and machinery will be inspected prior to their commencement of work and periodically throughout the construction phase.	Contractors
7.6	Refuelling of mobile equipment will be conducted in locations with appropriate spill response equipment and appropriately trained personnel. Passenger vehicles will not be permitted to be refuelled on site.Contractors	
7.7	If maintenance is carried out on site, spill trays are to be used and oil disposed of according to regulations.	Contractors
7.8	Procedures to be developed for oil-filling transformers and distillate tanks.	Contractors
7.9	Bulk oil and distillate tanks to be contained in bunded areas.	Contractors
7.10	Transport of hydrocarbons to comply with the Australian Dangerous Goods Code.	Contractors
7.11	Any contaminated soil or waste shall be disposed at a licensed facility.	Contractors

8 Waste and Energy Management		
Environmental Objectives	 Avoid/minimise generation of waste material, appropriate reuse/recycling where this is not practicable 	
	 Wastes to be disposed of in a lawful manner which does not harm the environment 	
Target	 All waste will be separated and recyclable materials appropriately recycled 	
	 Records of all waste transported and received at licensed landfills to be kept on site 	
	 Use materials produced with a recycled content where possible 	



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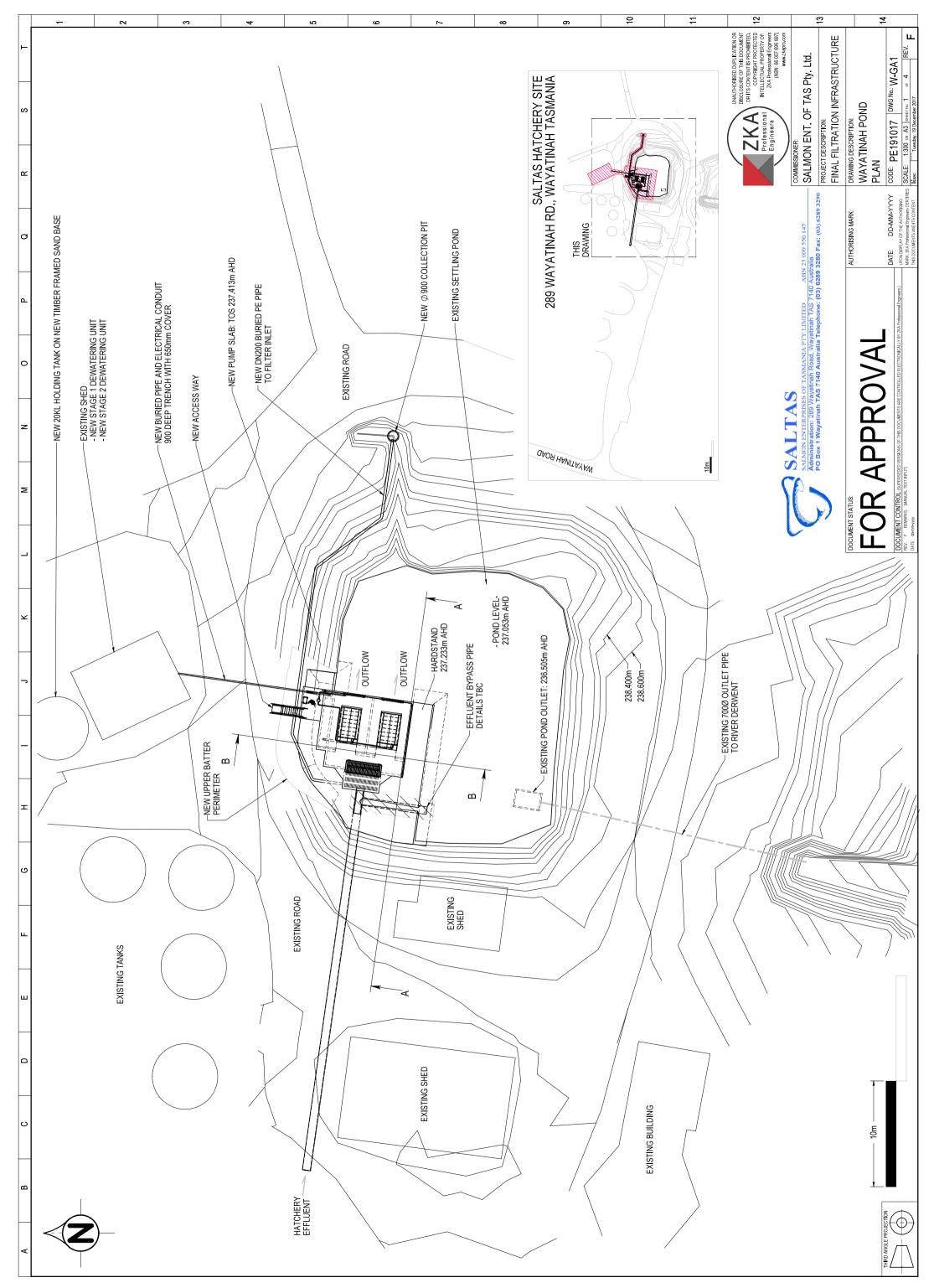
Legislation

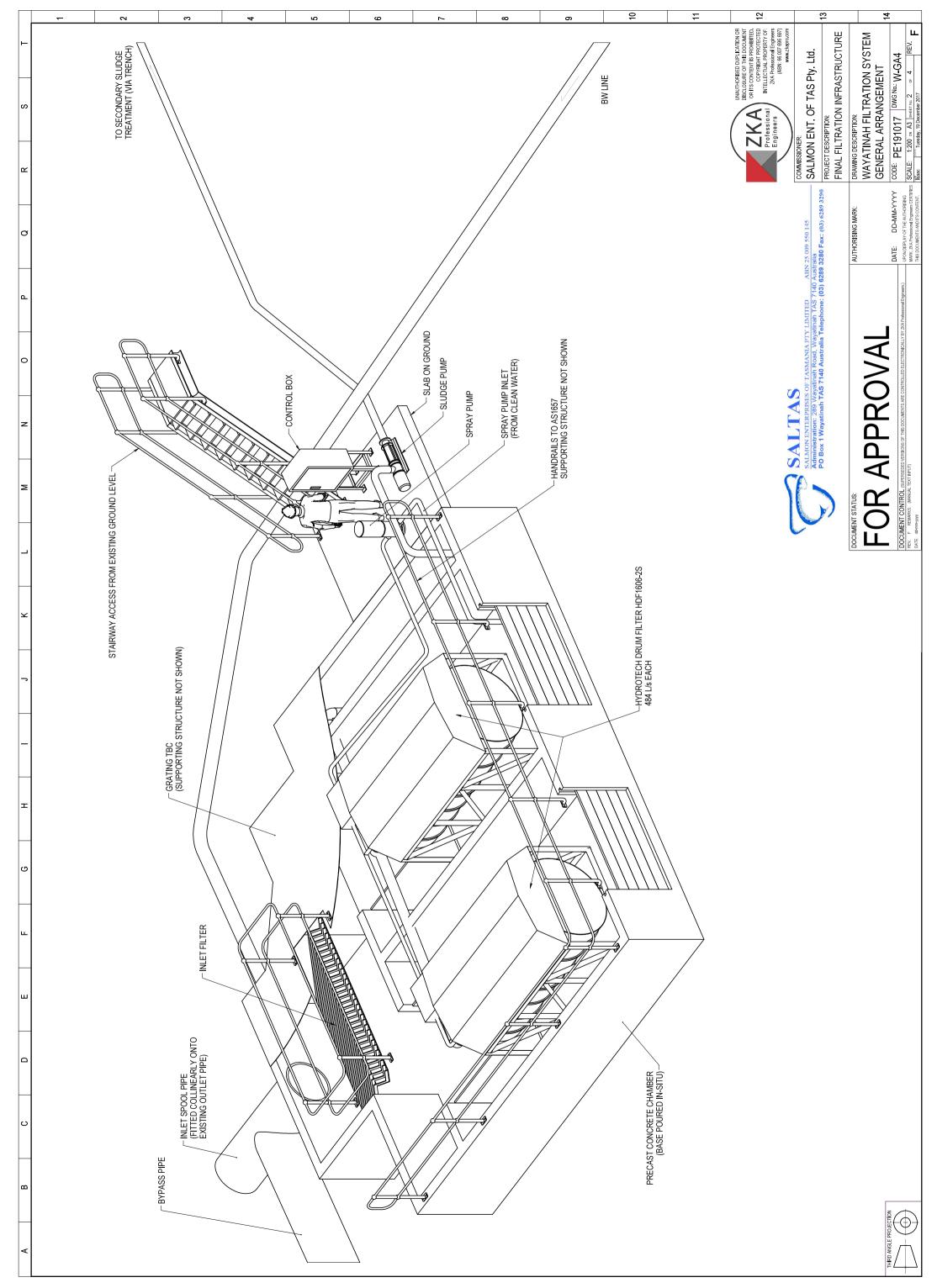
Environmental Management and Pollution Control (Waste Management) Regulations 2000

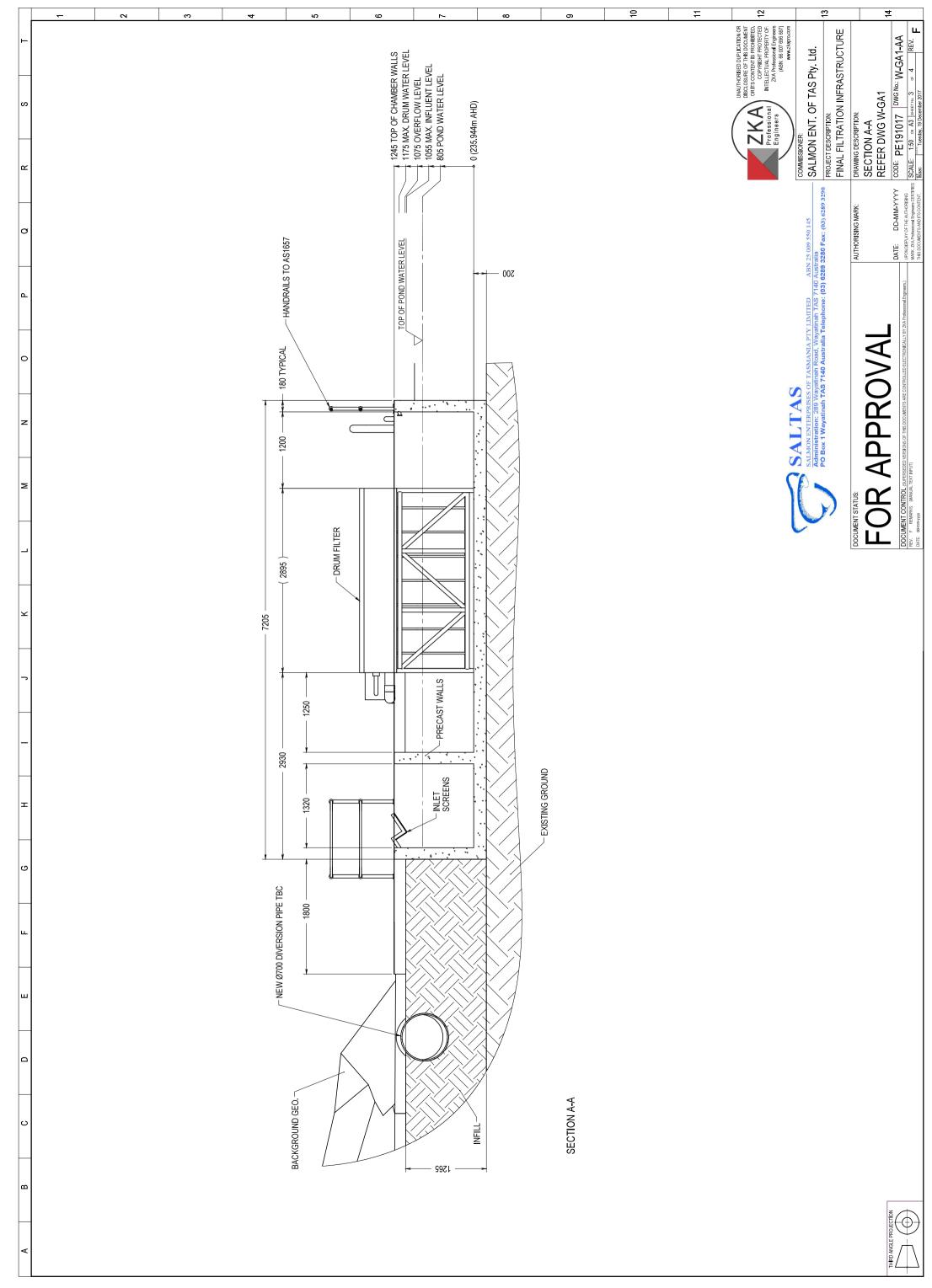
Action	Mitigation Measures	Responsibility
8.1	All contractors must define the likely solid and controlled wastes they will produce and how they will be disposed of.	Site Manager
8.2	Weekly inspections to include litter checks and consequent clean-up if necessary.	Site Manager
8.3	Controlled waste shall be removed from the construction site on a progressive basis and not allowed to stockpile unduly.	Contractors
8.4	Store and dispose of any general garbage to licensed landfill. Litter bins to have secure lids to prevent access by animals.	Contractors
8.5	Construction waste to be sent for recycling where practicable.	Contractors
8.6	Segregate and recycle general solid wastes generated by construction activities.	Contractors

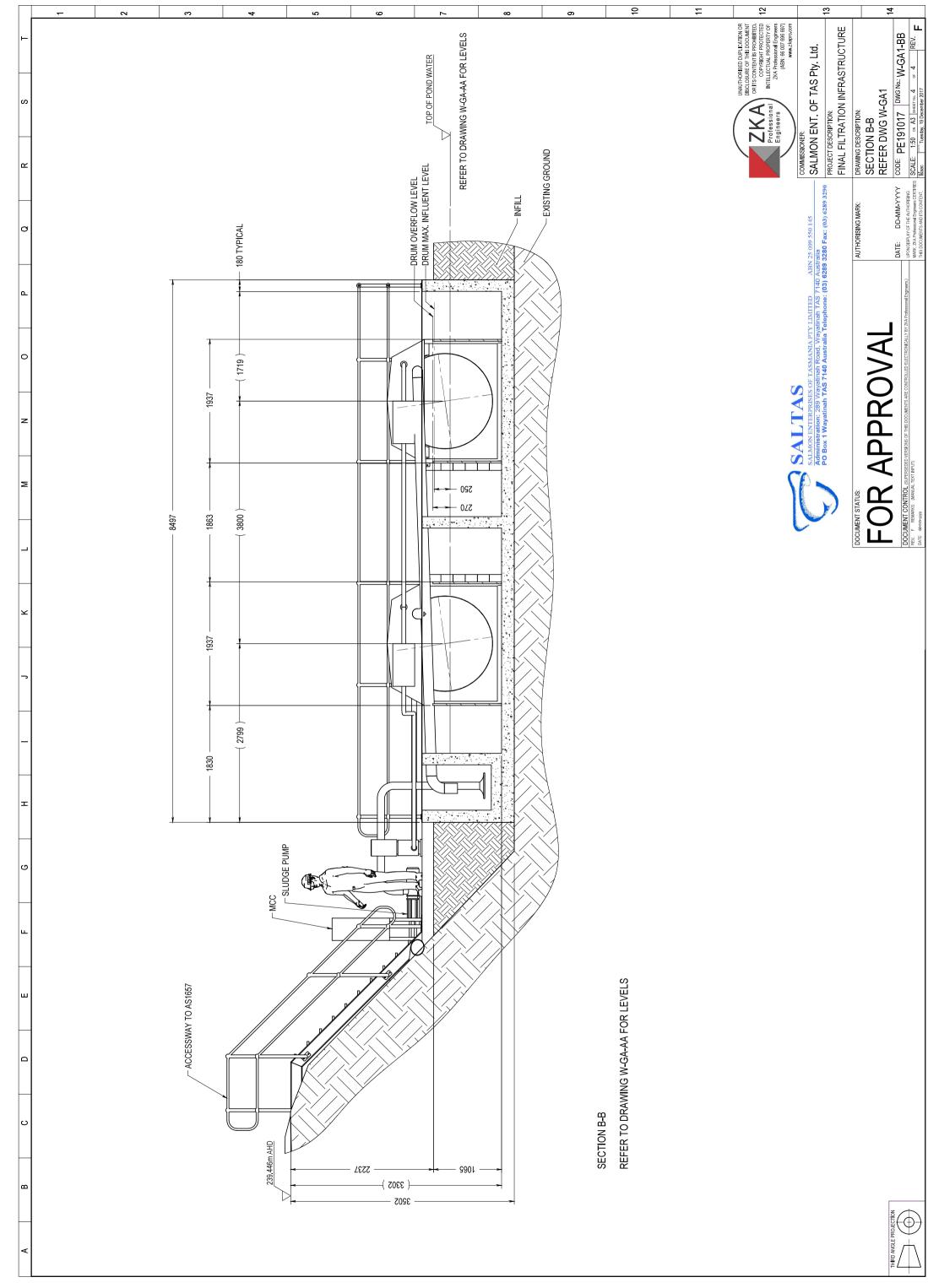


Appendix A – Wayatinah Drum Filter General Arrangement Drawings











Appendix B – Florentine Drum Filter General Arrangement Drawings

Not applicable to this application for a planning permit



Appendix C – Saltas Environmental Policy

Saltas is committed to environmentally robust business practices. Protecting, conserving and enhancing the environment for current and future generations are a high priority for our business.

To achieve our environmental goals we are committed to the principles of continuous improvement and the prevention of pollution.

Saltas undertakes to:

- Identify and assess environmental risk and act to eliminate or minimise environmental impacts that arise from our products, services and operations.
- Establish measurable objectives and targets aimed at preventing pollution and improving environmental performance; and monitoring and reviewing these measures to ensure that we continually improve.
- Encourage equivalent environmental commitment from our suppliers and contractors.
- Consult with and engage internal and external stakeholders, including local communities and regulators on relevant environmental matters.
- Support the Tasmanian Salmon industry in their pursuit and maintenance of Aquaculture Stewardship Council (ASC) certification.
- Encourage a sense of environmental responsibility among all employees through training, education and communication.
- Ensure the long term sustainability of our industry and the environment we operate within.

Environmental Assessment Report

Wayatinah Hatchery Drum Filter Project

289 Wayatinah Road, Wayatinah

Salmon Enterprises of Tasmania Pty Ltd

February 2019





Environmental Assessment Report		
Proponent	Salmon Enterprises of Tasmania Pty Ltd (SALTAS)	
Proposal	Drum Filter Project	
Location	Wayatinah	
NELMS no.	9839/2	
Permit Application No.	DA 2018/11 (Central Highlands Council)	
Electronic Folder No.	EN-EM-EV-DE-255653	
Document No.	M406090	
Class of Assessment	2A	

Assessment Process Milestones		
19 January 2018	Notice of Intent lodged	
I March 2018	Permit Application submitted to Council	
6 March 2018	Referral received by the Board	
20 April 2018	Guidelines Issued	
8 December 2018	Start of public consultation period	
24 December 2018	End of public consultation period	
31 January 2019	Draft conditions issued to proponent	
8 February 2019	Statutory period for assessment ends	



Acronyms		
AGWQMR	Australian Guidelines for Water Quality Monitoring and Reporting	
AS1940:2017	Australian standard for storage and handling of flammable and combustible liquids	
APVMA	Australian Pesticides and Veterinary Medicines Authority	
AMP	Ambient Monitoring Plan	
Board	Board of the Environment Protection Authority	
BOD	Biochemical oxygen demand	
CEMP	Construction and Environmental Management Plan	
dBA	A-weighted decibels	
DMP	Discharge Management Plan	
DPIPWE	Department of Primary Industries, Parks, Water and Environment	
EC	Electrical conductivity	
EAR	Environmental Assessment Report	
EER	Environmental Effects Report	
EIA	Environmental impact assessment	
EL	Environmental licence	
EMPC Act	Environmental Management and Pollution Control Act 1994	
EMPCS	Environmental management and pollution control system	
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cth)	
LOD	Limit of detection	
LOR	Limit of reporting	
LUPA Act	Land Use Planning and Approvals Act 1993	
NATA	National Association of Testing Authorities	
РСАВ	Policy and Conservation Branch of DPIPWE	
PEV	Protected environmental values	
RAM	Restricted animal product	
RMPS	Resource management and planning system	
SALTAS	Salmon Enterprises of Tasmania Pty Ltd	
SD	Sustainable development	
SDS	Safety data sheet	
TN	Total nitrogen	
ТР	Total phosphorus	
TSPA	Threatened Species Protection Act 1995	
TSS	Total suspended solids	
SSWQGV	Site specific water quality guidelines values	





Report Summary

This report provides an environmental assessment of Salmon Enterprises of Tasmania Pty Ltd (SALTAS) proposed Wayatinah Hatchery Drum Filter Project.

The proposal involves construction and operation of drum filters at the Wayatinah hatchery on the Derwent River.

This report has been prepared based on information provided in the permit application and Environmental Effects Report (EER). Relevant government agencies and the public were consulted and their submissions, representations and comments considered as part of the assessment.

Further details of the assessment process are presented in section I of this report. Section 2 describes the statutory objectives and principles underpinning the assessment. Details of the proposal are provided in section 3. Section 4 reviews the need for the proposal and considers the alternatives. Section 5 summarises the public and agency consultation process and the key issues raised in that process. The detailed evaluation of environmental issues is contained in section 6. Other issues are discussed in section 7. The report conclusions are contained in section 8.

Appendix I details matters raised by the public and referral agencies during the consultation process. Appendix 2 contains the environmental licence for the proposal. The environmental conditions in Appendix 2 are a new set of operating conditions for the entire activity that will supersede the existing environmental licence.



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I Approval Process

An application for a permit under the Land Use Planning and Approvals Act 1993 (LUPA Act) in relation to the proposal was submitted to Central Highlands Council on 1 March 2018.

The proposal is defined as a 'level 2 activity' under clause 4(h), schedule 2 of the *Environmental Management and Pollution Control Act 1994* (EMPC Act), being finfish farming. Section 25(1) of the EMPC Act required Council to refer the application to the Board of the Environment Protection Authority (the Board) for assessment under the Act. The application was received by the Board on 6 March 2018.

The Board required that information to support the proposal be provided in the form of an Environmental Effects Report (EER).

Several drafts of the EER were submitted to the Department for comment before it was finalised and accepted on behalf of the Board. The EER was released for public inspection for a 14-day period commencing on 8 December 2018. An advertisement was placed in *The Mercury* and a notice was placed on the EPA website. The EER was also referred at this time to relevant government agencies for comment. Four (4) public submissions were received.



2 SD Objectives and EIA Principles

The proposal must be considered by the Board in the context of the objectives of the Resource Management and Planning System of Tasmania (RMPS), and in the context of the objectives of the Environmental Management and Pollution Control System (EMPCS) (both sets of objectives are specified in Schedule I the EMPC Act). The functions of the Board are to administer and enforce the provisions of the Act, and in particular to use its best endeavours to further the RMPS and EMPCS objectives.

The Board must assess the proposal in accordance with the Environmental Impact Assessment Principles defined in Section 74 of the EMPC Act.

3 The Proposal

The main characteristics of the proposal are summarised in Table I. A detailed description of the proposal is provided in Section 2 (Part B) of the EER.

	Activity		
Filtration of wastew	Filtration of wastewater and disposal to the Derwent River.		
Location and plan	Location and planning context		
Location	289 Wayatinah Road, Wayatinah, 7140, as shown in Figure 1		
Land zoning	Rural Resource		
Land tenure	Private freehold land owned by SALTAS. The surrounding land to the north, west and south of the land own by SALTAS is owned by the Crown. Hydro Tasmania owns the land to the east of the hatchery and Wayatinah Dam		
Existing site			
Land Use	The land supports an existing salmon hatchery. Most of the land to the north, west and south is managed by Sustainable Timbers Tasmania. Hydro Tasmania manages the land and waters to the east of the hatchery.		
Topography	The land is situated in a valley at approximately 235 AHD on the banks of the Derwent River. The surrounding hills to the west rise to above 400 AHD. At approximately 800 metres east of the land, the Derwent River enters the Wayatinah Dam.		
Geology	Dolerite (tholeiitic) with locally developed granophyre.		
Soils	Dolerite soils		
Hydrology	The land slopes towards the Derwent River		

Table 1: Summary of the proposal's main characteristics



	ENVIRONMENT PROTECTION AUTHORITY
Natural Values	There is a record of Accipiter novaehollandiae (grey goshawk) being present on site.
	The forested environment surrounding the hatchery is identified as highly suitable nesting habitat for the Tasmanian wedge-tailed eagle (<i>Aquila audax fleayi</i>). The nearest raptor nest is approximately 2.5 km away from the proposal area.
	Species of listed flora in the vicinity of the land include <i>Pomaderris elachophylla</i> (small-leaf dogwood), <i>Barbarea australis</i> (riverbed wintercress).
	Weed species in the vicinity of the land include <i>Genista monspessulana</i> (montpellier broom), <i>Rubus fruticosus</i> (blackberry), <i>Cirsium arvense var. arvense</i> (creeping thistle), <i>Cytisus scoparius</i> (English broom) and <i>Cortaderia sp.</i> (pampas grass).
Local region	
Climate	Average annual rainfall of 1292.6mm. The mean temperature ranges from 7 to 18.9 degrees Celsius. The prevailing wind direction at Wayatinah is westerly.
Surrounding land zoning, tenure and uses	The land to the northwest and south of the site is Permanent Timber Production Zone Land. The Wayatinah Conservation Area occupies most of the area to the west.
Species of conservation significance	Ornithorhynchus anatinus (platypus), Litoria ewingii (brown tree frog), Ninox novaeseelandiae subsp. leucopsis (southern boobook), Tasmaphena sinclairi (Sinclair's carnivorous snail), Keratroides vulgaris, Helicarion cuvieri, Stenacapha hamiltoni, Cystopelta bicolor and Epacris acuminata (claspleaf heath) have been recorded within I km of the land.
	Tasmanian wedge-tailed eagles have been sighted within 5 km of the land, with the nearest nest approximately 2.5 km from the proposed operational area.
Proposed infrastr	ucture
Major equipment	Hydrotech drum filter, screw press, transfer pumps (for water and sludge waste), backwash pump,
Other infrastructure	Settlement pond, RAS, flow-through tanks, pipes and drains, Lamella plate clarifier, sludge tank, trucks, hydraulic hammer, mobile crane, auxiliary blower, diesel generator, air compressor.
Inputs	1
Water	Influent water from the upper Derwent River and Wayatinah Lagoon
Energy	Small volumes of petrol and diesel, electricity
Other raw materials	Various salmon feeds, chemicals for operations
Wastes and emiss	sions
Liquid	The discharge of wastewater into the Derwent River and Wayatinah Lagoon.
Atmospheric	Odour associated with the storage and accumulation of salmon-derive organic waste (sludge waste). Dust associated with excavation and construction.
Solid	Salmon faecal matter and waste feed, as sludge waste, to be collected regularly (~every 4 days).
Controlled wastes	Chemical residues (not retained by the drum filter screens)



Noise	From operation of excavator and vehicles on site associated with the site preparations and installation of the infrastructure.		
Greenhouse gases	Not relevant for this assessment		
-	nmissioning and operations		
,	,		
Proposal timetable	The drum filter should be fully operational within 5 months of commencement in early 2019.		
	The schedule for ground works allows 15 weeks, with mechanical installation of the drum filters and associated infrastructure expected to take approximately 3 weeks.		
	Commissioning is expected to take two weeks, with another 6 weeks scheduled for any required adjustments to the system.		
Operating hours (ongoing)	Construction operating hours will be 0700 – 1900 weekdays and 0800 – 1700 on Saturdays.		
	Hatchery operating hours are 24 hours per day, 7 days per week, ongoing.		
Other key characteristics			
N/A			

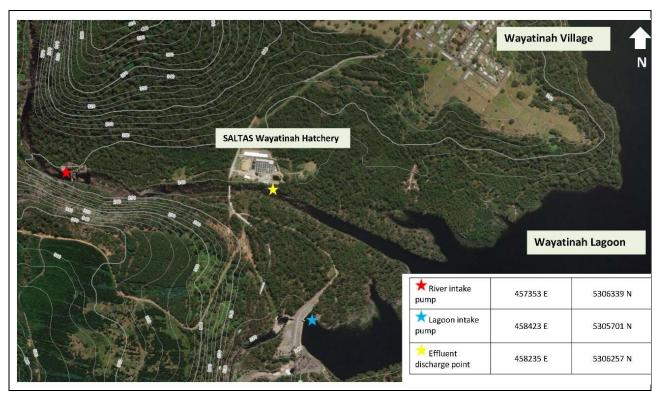


Figure 1. (Figure 7 of the EER) Area map showing the location of the Wayatinah Hatchery to the east of the Wayatinah Lagoon



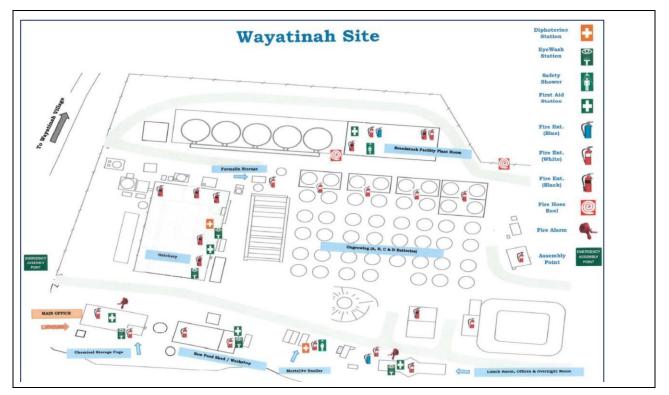
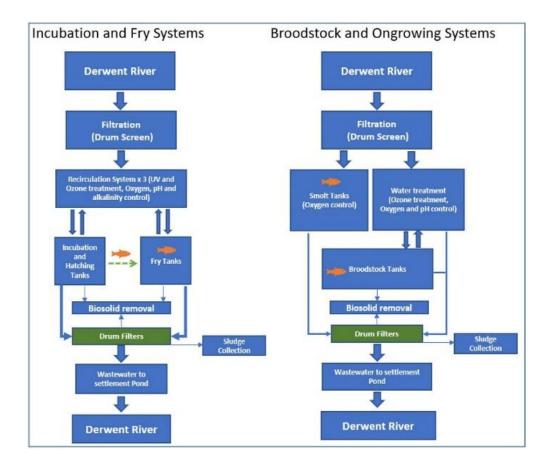


Figure 2. (Figure 8 of the EER) Schematic of the Wayatinah Hatchery layout. The drum filters are proposed to be located on the side of the settlement pond (bottom right corner).



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Figure 3. (Figure 2 of the EER) Conceptual model of the Wayatinah Hatchery



Figure 4. (Figure 3 of the EER) Illustration of a drum filter design by Hydrotech, similar to that proposed.

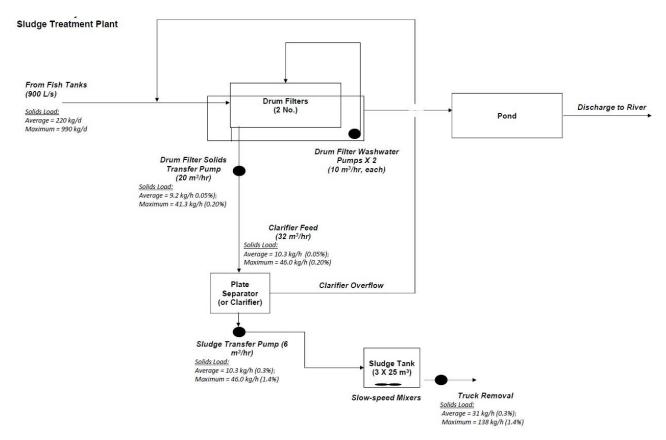


Figure 5. (Appendix B of the EER) Conceptual Model of the drum filter and sludge waste treatment system



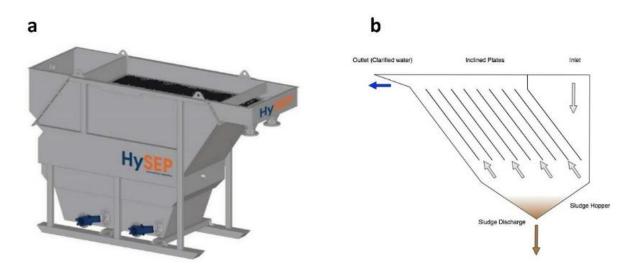


Figure 6. (Figure 5 of the EER) Lamella Plate Clarifier - an integral part of the sludge waste treatment system that dewaters the sludge.



Figure 7. The settlement pond for the Wayatinah Hatchery effluent



4 Need for the Proposal and Alternatives

The existing flow-through hatchery is designed to take in large volumes of water from the Derwent River above the hatchery. The water becomes loaded with salmon faecal material (organic solids; sludge waste) as it passes through the farm and is discharged via a single settling pond and outfall to the Derwent River. The EER (Section 2.1.4) indicates that the current settlement pond is not effectively treating the hatchery effluent (Figure 7). SALTAS intend to reduce the nutrient loading of the hatchery's effluent using a method that would effectively treat the high volumes of water that flow through the hatchery.

The EER (Section 2.4) states that preliminary scoping of the project identified the following treatment methods as options:

- Increased retention of solids in existing settlement pond.
- Increased desludging of the settlement pond (removal of solids).
- Constructed wetlands to trap solids and nutrients.
- Bio-filtration to trap solids and nutrients.
- Drum filters to remove solids from the wastewater.

Based on the flow rate and organic loading of the wastewater, drum filters (Figure 4) are presented as the most suitable method for improving effluent quality released from the hatchery. This method is sufficiently gentle to filter suspended solids from the effluent without excessive dissolution of bound nutrients.

Increasing the rate of manual removal of settled sludge waste from the bottom of the settlement pond was not considered an effective method for removing solids from hatchery effluent. There is insufficient space to establish a constructed wetland in this location.

According to the EER, settlement ponds are not considered efficient for primary treatment of wastewater. The sludge waste is likely to release dissolved nutrients due to exposure to physical agitation and microbial decomposition. According to the EER, expansion of the existing settlement pond to retain wastewater for more than one hour is not possible, because there is insufficient space between the existing infrastructure and the Derwent River. Elevation of the pond to avoid the risk of the river flooding the site is not considered feasible.

The bio-filter option of using fine filtration and microbial reaction to reduce organic nutrient loads would require complex engineering, adequate space and major capital expenditure. This option was also presented in the EER as impracticable.



5 Public and Agency Consultation

A summary of the public representations and government agency/body submissions is contained in Appendix I of this report.

Four (4) public representations were received (Refer to Appendix I for a summary). The main issues raised in the representations included:

- Continued discharge of significant loads of dissolved nutrients to the Derwent River. Drum filters remove part of the solid organic waste but not the dissolved nutrient fraction.
- Drum filters do not represent accepted modern technology or environmental best practice. Alternative methods of wastewater treatment should be considered or the activity could be relocated.
- Algal blooms may result from nutrient enrichment of the water body, potentially reducing the quality of drinking water and recreational values of the waters downstream. Costs may be incurred by users of these waters.
- Discharge of untreated effluent directly to the upper Derwent River during the construction period.
- Anoxic conditions could potentially develop in the plate clarifier (Figure 6), resulting in an increased flux of dissolved nutrients in the waste stream to be discharged.
- Use of therapeutic treatments presents a risk of the pollutants being released into the receiving waterway.
- Deficiencies in the existing water quality datasets.

Submissions were received from the following organisations and one individual:

- Derwent Estuary Program
 - Main comments related to the proposed activity's inability to remove dissolved nutrient from the effluent, and the limitations in the information used to develop the case for assessment (refer to Refer to Appendix I for a summary)
- Hydro Tasmania
 - Main comments related to the potential for adverse impacts on water quality and potential effects on human health.
 - Also advocated a monitoring program for the receiving reservoir, and encouraged the sharing of water quality data with government agencies.
- Environment Tasmania
 - Main comments related to the proposed activity's inability to remove a more substantial pollutant load from the effluent, limitations in the information used to develop the case for assessment, and the need to use best practices and fit-for-purpose technology to prevent further impacts downstream (refer to Refer to Appendix I for a summary).

The following Divisions/areas of the Department of Primary Industries, Parks, Water and Environment also provided advice on the EER:

• Regulator, EPA Tasmania

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- Water Specialist, EPA Tasmania
- Air Specialist, EPA Tasmania
- Noise Specialist, EPA Tasmania
- Policy and Conservation Branch, Natural and Cultural Heritage Division

6 Evaluation of Environmental Issues

EPA Tasmania has evaluated environmental issues considered relevant to the proposal. Details of this evaluation, along with the Environmental Licence conditions required by the Board, are discussed below:

The following environmental issues are discussed:

- I. Effluent discharge and nutrient enrichment
- 2. Natural Values (flora, fauna and habitat)
- 3. Odour emissions and air quality
- 4. Noise emissions
- 5. Solid waste
- 6. Weeds, pests, pathogens and biosecurity
- 7. Environmentally hazardous substances
- 8. Stormwater, sediment and run-off

General conditions

The following general conditions, which will be imposed on the activity are standard conditions found on all fish farm related Environmental Licences:

- Condition G2 Access to and awareness of conditions and associated documents
- **Condition G3** No changes to an Environmental Licence activity without approval
- Condition G4 Incident response
- **Condition G5** Notification of fish and ova mortality
- **Condition G6** Change of responsibility
- Condition G7 Change of ownership
- **Condition G8** Annual Environmental Review

The following general conditions, which will be imposed on the activity, are specific to address environmental issues raised through the assessment of the activity:

- Condition GI Regulatory limit
- Condition G9 Additional requirements for Annual Environmental Review
- **Condition GI0** Complaints register
- Condition GII Sludge Waste Reuse Management Plan
- Condition G12 Construction and Environmental Management Plan
- Condition GI3 Discharge Management Plan

Other specific conditions that will be imposed on the activity are discussed below in sections on the environmental issues potentially linked to the proposal.



Issue I: Effluent discharge and nutrient enrichment

Description of potential impacts

The construction and operation of two drum filters to treat finfish farm effluent (Figure 4) involves the discharge of effluent that contributes to nutrient enrichment of the upper Derwent River near the Wayatinah Lagoon (refer to Figure 3 and 5 – conceptual model of hatchery and drum filter water treatment process).

The Derwent River flows by the southern boundary of the land in an easterly direction towards the Wayatinah Lagoon, which is located 700 metres downstream. The catchment area upstream of the hatchery is production forest managed by Forestry Tasmania. The upper catchment includes Clarke Dam at Lake King William, which releases water of good quality (low conductivities, ion levels and algal densities) to the upper Derwent River. The highest flow in this part of the river is generally during the winter to spring months and lowest flows occur in summer and autumn. Protected Environmental Values (PEVs) for the waterway include recreational water quality and aesthetics (i.e. low levels of odour, water colour). These values also relate to important uses of the Wayatinah Lagoon including recreational fishing, boating, swimming and paddling. Protection of aquatic ecosystems and industrial water supply (for hydro-electricity generation) are also PEVs.

The EER (Section 3.1) indicates that the proposal to establish drum filters to improve the quality of the effluent discharged from the fish farm is likely to result in improvements to the downstream water quality and aesthetics of the receiving environment. Improvements in water quality of a physical and chemical nature will help maintain or improve ecosystem health and help protect the other PEVs of the Derwent River and Wayatinah Lagoon.

The drum filters are designed to minimise any decomposition of the faecal matter in the effluent stream and settlement pond by removing waste particles larger than 80 microns. This equates to a significant volume of solid waste (61.2 tonnes of faeces and waste feed as dry weight per year) containing bound nutrients being removed from the effluent before it is discharged to the receiving environment.

The following have potential to elevate the contaminants, including suspended solids and nutrient concentrations, being discharged by the hatchery.

- During the construction phase with ground works, there is potential for increased sediment loads in stormwater run-off to enter the settlement pond or bypass channel. The groundworks also have the potential to increase discharged sediment loads. (Please refer to issue 8 for further discussion of this point.)
- During construction, a temporary bypass of the settlement pond will exclude the existing solids settling phase of effluent treatment, potentially resulting in higher volumes of solid particles from the effluent stream being discharged to the receiving waters; and
- During construction, the effluent stream moving along the temporary bypass channel will be more turbulent than a settlement pond. This may cause solid particles in the effluent to physically break-down before discharge and increase the concentration of dissolved nutrients in the effluent.



Management measures proposed in the EER

The EER (Section 2.1.1) indicates that the drum filters are the most feasible system to remove solid particles and reduce the organic and nutrient concentrations of the hatchery effluent. They provide mechanical filtration of solid particles, removing all particle-bound nutrients, such as nitrogen and phosphorus; and residual organic matter. The process is expected to remove the solids (>80 microns) before significant decomposition of the organic matter occurs. The organic matter and organically bound nutrients retained by the filter screen will be removed from the main effluent stream and dewatered, and the resulting sludge will be reused at a composting or biosolids site that has approval to receive the waste.

The EER (Section 2.1.2) indicates that during the construction period, groundworks will be undertaken in the settlement pond to prepare it for installation of the drum filters and associated infrastructure. Excavated material will be stockpiled, contoured and stabilised with vegetation. Sediment controls, such as gross pollutant traps/fences and filter socks, will be in place where required. Any contaminated water will be removed from the site to a treatment facility that has approval to take the waste (EER section 3.3.5).

During construction, the hatchery wastewater will bypass the settlement pond for approximately 6 weeks to avoid the work zone, and will be diverted directly to the Derwent River. The diversion is not expected to result in any significant increase of organic matter or pollutants to the river, as the existing settlement pond is underperforming, with reduced residence time due to sludge accumulation. Under normal operation the pond has a retention time of only 15-20 minutes, pointing to the need for primary screening as part of the treatment process.

Section 3.7 states that once a year, usually in spring, sludge waste that has accumulated in the settlement pond will be removed using an excavator and/or pumps. This will be reviewed as part of the treatment upgrade.

SALTAS will implement its *Construction*, *Safety and Environmental Management Plan*. This plan contains broad objectives and sets an agenda to avoid and minimise any surface water contamination that could arise from construction activities. The plan outlines the following management measures for the construction period.

- Construction machinery cleaned on entering and leaving site, consistent with the Wash Down Guidelines for Weed and Disease Control Edition 1 (DPIWE 2004)
- Soil stabilisation techniques and re-vegetation of stockpiles.
- Controls on movements of clean and contaminated water, including sediment control measures (filter socks, sediment fencing/basins).
- Maintenance of stormwater diversion channels.
- Storage of fuel and chemicals in accordance with AS1940.
- Onsite spill containment infrastructure and clean up equipment.
- Site personnel to be trained in spill response and containment.



Public and agency comments

Representations

Representors were generally concerned that the Wayatinah hatchery will continue to discharge significant loads of dissolved nutrients to the Derwent River, as nutrients will not be removed from the waste stream by the drum filters. Additional treatment would be required to achieve this. The nutrient enrichment of the river by SALTAS may lead to impacts on the downstream aquatic environment and costs incurred by users of the waters.

The representations generally indicated that the Wayatinah Lagoon, downstream of the hatchery, is considered an important drinking water supply and recreational area. There are concerns that the proposal only removes part of the solid organic waste and is not effective at removing the dissolved nutrient fraction from the effluent, particularly ammonia and phosphorus, from the receiving environment. One representor questioned the quantity and proportion of solid organic waste and particulate/dissolved nutrients that will be removed by the proposed system.

Two representations mentioned that algal blooms can result from nutrient enrichment of water bodies, potentially reducing the quality of drinking water and recreational values of the waters downstream.

Three representors were concerned with the proposal to discharge untreated effluent directly to the downstream waterways during the construction period, which is planned for summer and autumn, when smolt biomass is at high levels. Options for reducing biomass during the construction period were suggested. Representors were of the view that the proposal should reflect best practice and accepted modern technology and suggested that more work was required to bring the hatchery up to modern standards.

One representor was concerned about the return of the 'clarified wastewater' from the plate clarifier (Figure 6) carrying increased dissolved nutrient concentrations back to the drum filter inlet. There was a concern that anoxic conditions could develop in the clarifier and increase concentrations of dissolved nutrients in this waste stream.

One representor was concerned about the use of therapeutic treatments and the potential for these substances to be released to surface waters.

All four representors made comments on the deficiencies in the information on existing water quality for the hatchery and nearby waterways. One representor questioned whether SALTAS should use alternative systems capable of removing both the dissolved fraction and the solid waste from the effluent.

Water Specialist comments

The interim effluent limits derived using the 90th percentile for each parameter, are supported as initial levels to at least maintain or improve current performance. These will be reviewed after commissioning and normal operations. The median emission levels in Table 13 of the EER should be used as a measure of successful operation once sufficient performance data has been collected. It may be necessary for SALTAS to continue monitoring beyond the 6 months proposed.

The site-specific water quality guideline values (SSWQGV) presented in Table 12 in the EER are preliminary. Only after additional ambient monitoring data is collected can SSWQGV be established to replace the current default guideline values for the Upper Derwent Catchment. On analysis of the existing water quality, electrical conductivity (EC), temperature, nitrate, total nitrogen (TN), total phosphorus (TP), and total suspended solids (TSS) stand out as key indicators of the performance of any water treatment for this hatchery. These parameters will be particularly important in relation to



monitoring potential interactions between the hatchery and receiving waters, along with the nutrients TKN, TAN, and DRP, and measured organic carbon, i.e. TOC and DOC.

Additional monitoring is required during and after commissioning of the drum screens. The proposed monitoring program was supported, however a longer period of high frequency monitoring and additional water quality sites are recommended at the following locations:

- The inlet and outlet of the drum filter during commissioning.
- The inlet where Wayatinah Dam water is being used to supply water to the hatchery.
- The point where sludge supernatant returns to the beginning of the treatment process.
- Downstream of the existing 'W003' sampling site (to better understand mixing within the stream).
- At biological sampling sites to interpret both the biological and water quality information.

Evaluation

The drum screens are expected to deliver a significant reduction in nutrient loadings to the receiving waterway, by removing organic solids before bound nutrients dissolve into the wastewater. Calculations from feed inputs indicate the drum filter system will remove approximately 17 tonnes (dry weight) of organic solids annually, prior to effluent discharge. Despite this improvement in effluent quality, the treatment will not remove dissolved nutrients from the effluent stream. There is also a risk that the construction and operation of two drum filters may increase the concentrations and/or loading of organic nutrients in the effluent that is discharged from the hatchery, thereby contributing to nutrient enrichment of the Derwent River downstream of the hatchery. The two main mechanisms linked to this proposal that increase this risk are:

- Diversion of hatchery effluent into the river for an estimated 6 week period during construction in the area of the existing settlement pond; and
- Return of the clarified wastewater stream back into the drum filter inlet, which may increase the concentrations and/or loads of dissolved nutrients in the effluent at the outfall.

Three representations conveyed concerns about bypassing the settlement pond (Figure 7) during construction. The retention time for the existing pond is estimated to be 15-20 minutes. This is insufficient to settle organic sediment from the wastewater at flows of 600-900 litres per second. Given this, diverting the hatchery effluent to the river during installation and commissioning is likely to release equivalent concentrations and nutrient loads as previously. This is considered to be acceptable in the short term to allow the works to proceed. Future regulation of the activity, in accordance with the *State Policy on Water Quality Management 1997*, will focus on improving effluent quality.

One representation was concerned about the return of the clarified wastewater to the main effluent stream. The Lamella plate clarifier (Figure 6) is required to separate and dewater the solids collected by the drum screen. If the contact time between the liquid and the solid waste is prolonged in the plate separator, or anoxic conditions develop, nutrients from the solid waste may dissolve into the clarified wastewater stream. This could increase the concentrations of dissolved nutrients as it returns to the main effluent stream.

SALTAS has committed to ongoing monitoring to quantify any increase in pollutants. As a contingency, should the main effluent stream exceed the interim effluent limits, the clarified wastewater stream could be diverted to a storage tank for further treatment or be reused at an approved site. Nevertheless, interim effluent quality limits for discharge to the Derwent River will apply at the existing outfall (end-of-pipe) from the start of commissioning of the drum filters (**Condition EF2** see below for details). Any exceedances must lead to a review of appropriate management and further



management actions. SALTAS Commitment 7 relates to a review of all monitoring data after 6 months of normal operations (post commissioning).

Condition EFI formalises the location of end-of-pipe and requires that effluent is not discharged unless it is compliant with the interim effluent quality limits, which are set out in **Condition EF2**.

Protected Environmental Values

All four representations were concerned about the environmental values of the receiving environment. The PEVs for the Upper Derwent River Catchment are

- I. Ecosystem protection
- 2. Water quality for primary and secondary contact, and aesthetics
- 3. Industrial Water Supply, water quality suitable for hydro-electricity schemes

The monitoring data presented in the EER shows that the existing discharge is affecting water quality downstream of the hatchery. When the variation to the Environmental Licence comes into effect (subject to Board approval), it will be the first time that discharge quality limits for the activity have been set. Ongoing regulation by EPA Tasmania will focus on continued improvement of the hatchery's wastewater treatment processes, consistent with the SPWQM. Refer to discussion below, with respect to the Interim Effluent Quality Limits and **Condition EF2**.

Water throughput and drum filter bypass events

One representor was concerned with the proposed discharge of untreated effluent directly to the waterway during the period of highest smolt biomass in summer to autumn months. The current performance of the existing settlement pond at the hatchery is poor. Construction and installation of the drum filter will be an improvement to the existing activity, but must be undertaken at a time that will avoid periods of heavy rainfall, which generally occurs between June and August.

On balance, it is considered that due to its expected environmental benefits, the installation of the drum filter treatment system should represent an improvement on existing practices. The temporary diversion of the effluent directly to the river is considered a necessary step in upgrading the hatchery. Fortnightly water quality and flow monitoring of the upstream waters, influent, effluent and receiving Derwent River waters is required during the installation and commissioning period to understand and quantify the net risk presented by the effluent discharge to the receiving environment.

In addition, it is important that SALTAS records all future drum filter bypass events to build a clearer understanding of the interactions between discharged hatchery effluent and the receiving environment, for the purpose of reviewing water quality datasets. **Condition OP3** is imposed to require that SALTAS establish a system for logging bypass events, effective within 4 weeks of the Environmental Licence conditions taking effect.

Condition G9 requires that a Drum Filter Bypass Report must be included as part of the Annual Environmental Review. The report must provide details of the circumstances relating to each bypass event including:

- The maximum rate of wastewater inflow at which bypass of the drum filter was avoided and wastewater treatment was not impeded.
- The rate of wastewater inflow at which bypass of the drum filter was necessary.
- The timing and reasons for the bypass event.
- The volume of untreated effluent discharged.

Implementation of a water quality monitoring program will be formalised through **Condition M3**, which relates to Commitment 5 to undertake ongoing fortnightly water quality sampling, as outlined in the EER, however, an extended period of monitoring is applied by **Condition M3**.



Water quality to be monitored in the Derwent River at a site in the weir upstream of the hatchery and at sites approximately 60 metres and 200 metres downstream of the effluent outfall. Additionally, water quality is to be monitored at two sites at the hatchery, the outfall of the settlement pond and at a site representing the mixed influent received at the hatchery from the Derwent River and Wayatinah Lagoon. Water quality monitoring must be conducted fortnightly until the drum screens are commissioned, including through the bypass period, and fortnightly for the period from October 2019 to June 2020 to capture annual production increase to a peak biomass, then monthly thereafter. The specified parameters to be monitored were identified as indicators of potential environmental impacts in the downstream receiving waters, relevant to the fish farm activities.

Interim effluent quality limits

The proposed interim effluent quality limits, based on the 90th percentile value of the existing effluent quality, are supported as initial levels to at least maintain or better current performance. However, previous measurements and samples collected for effluent quality were unbalanced across years and seasons of monitoring, which has resulted in the existing data being skewed statistically to reflect winter and autumn conditions. Additional monitoring is required during and after commissioning of the drum filters to collect accurate information about the effluent quality and ambient conditions in the receiving environment.

The Water Specialist has advised of the need for additional effluent quality monitoring sites, specifically at the inlet and outlet of the drum filter during commissioning, to evaluate the performance of the drum filter (**Condition M2**). After commissioning, the drum filter inlet will also be the location where clarified (sludge-free) effluent is returned to the main wastewater stream. The monitoring will assist in the assessment of potential impacts of the clarified effluent stream returned to the main effluent stream.

The Water specialist has recommended that the median values, presented in Table 13 of the EER, should be used as a measure of an improving operation both as a limit and also in trend analysis of performance. The effluent quality parameters to be monitored should include electrical conductivity (EC), temperature, nitrate, total nitrogen (TN), total phosphorus (TP) and total suspended solids (TSS). On analysis of the existing water quality datasets, these parameters stand out as being key indicators of the performance of any water treatment for the hatchery. Additional parameters should be included to better understand the nutrient speciation, that is, total ammonia nitrogen (TAN), total Kjeldahl nitrogen (TKN), and dissolved reactive phosphorus (DRP). Also a measure of carbon should be included, that is, total organic carbon (TOC) and dissolved organic carbon (DOC). Interim effluent quality limits are needed until the expected performance of the drum filters is verified. **Condition EF2** formalises the interim effluent quality limits for key pollutant concentrations, which will come into effect before commissioning of the drum filters. These limits should be reviewed and revised after the drum filter performance is evaluated (before the Discharge Management Plan is completed – refer below).

Condition M3 has monitoring requirements that will provide records of the quality of the discharge to assess compliance with the effluent quality limits in Table I (Condition EF2), including during the bypass period.

After commissioning the drum filters, the wastewater must undergo treatment via the drum filter system and settlement pond before reaching the end-of-pipe. The statistical assessment of the effluent quality must not result in exceedance of the median limit, 90th percentile and maximum limit for each water quality parameter (**Condition EF2**). The discharge management plan (DMP) subject to approval by the Director will inform further improvements, if required, on management or treatment process.



Ambient water quality monitoring

Ambient monitoring of receiving waters for the Derwent River and Wayatinah Lagoon must be undertaken to assess the influence of the discharged effluent on the receiving water bodies. SALTAS must develop an ambient monitoring plan for receiving waters to establish a program, which is informed by the Australian Guidelines for Water Quality Monitoring and Reporting (AGWQMR) (**Condition M5**). The monitoring must be conducted to characterise the ambient water quality and biological conditions and account for the PEVs of the receiving waters of Wayatinah Lagoon. A report presenting the results of the monitoring should include an assessment of the dilution and dispersion of the likely pollutants discharged by the hatchery.

Water quality datasets for the upper Derwent River and Wayatinah Lagoon in the vicinity of the hatchery are temporally and spatially limited, and there is a lack of suitable data to access the cumulative impacts of the hatchery on the downstream aquatic environment. The ambient water quality monitoring program should include a location that validly represents influent when taken from the Wayatinah Lagoon to augment the flow-through in the hatchery. Additional monitoring sites downstream of the effluent outfall, coinciding with the biological monitoring locations, are required. Water quality monitoring at the biological sampling locations will help understand the relationship between water quality and the biological community in the Derwent River. Monitoring of these sites is also important to gain an increased understanding of the influence of mixing of the effluent plume in the receiving waterway.

The Ambient Monitoring Program (AMP) must be submitted to EPA Tasmania by 30 June 2019 and implemented within a month of the Director's approval (**Condition M5**). The program is intended to characterise ambient water quality and ecological health of the downstream water body for the purpose of assessing the impacts of the hatchery's effluent over the annual production cycle, capturing seasonal variation. It must include technical studies that investigate the dilution and dispersion of effluent in the receiving waters, with a view to determining whether a mixing zone is required. The assessment must consider impacts on PEVs and relevant sensitive receptors. The results must be documented in an Ambient Monitoring Report (AMR) to be used to inform the development of a Discharge Management Plan (DMP)

The EER (Section 3.14) indicates that the existing Monitoring Program will continue with fortnightly sampling, then reduced to monthly sampling once a comprehensive data set is attained. The monitoring program sets out water quality guideline values (EER section 3.3.1.2) and effluent limits (EER section 3.3.2.1). The EPA Water Specialist has advised that the interim guideline values and limits, and the review process through the DMP, are appropriate to support the proponent to achieve continual improvement of effluent quality to protect identified environmental values. Monitoring will occur fortnightly until the data sets are sufficiently representative of seasonal/operational variation in water quality, following the commissioning of the drum filters. Monitoring will occur fortnightly until the data sets are sufficiently representation in water quality, following the commissioning of the drum filters.

Condition M6 formalises the requirement for accurate geographic references, such as GPS coordinates or grid references, for the sampling locations to be submitted to the Director of the EPA.

Discharge Management Plan

By March 2019, SALTAS will have commenced collection of an augmented and comprehensive water quality dataset from its water quality and flow monitoring programs. This data will complement the data for effluent quality and downstream biological monitoring. Once the drum screen operation and performance are optimal and well understood, SALTAS must analyse its datasets and review its ambient monitoring to develop options for improving effluent management at the hatchery. The interim effluent quality limits will be assessed by the EPA after reviewing the monitoring results, and any required modifications discussed with EPA Tasmania. The need, or otherwise, for a mixing zone for the effluent plume should be evaluated, and the wastewater treatment and sludge re-use system



should be evaluated against observed impacts on the receiving environments. Alternative methods, with regard to accepted modern technology and best environmental management practices, must be reviewed. This work needs to:

- a. Demonstrate that effluent discharge is not significantly adverse to the achievement of the water quality objectives for the receiving environment; or
- b. The actions to be implemented to address identified issues, if significant effect is occurring; and
- a. Determine whether any upgrades to the wastewater treatment system are required to ensure compliance with effluent quality limits to protect the identified environmental values.

The review of the data and the investigation of means for improvement must be documented in a DMP and submitted to EPA Tasmania by 31 March 2020 (standard **Condition G13**). This approach is consistent with the SPWQM framework for improving performance of existing activities.

Water Quality Guideline Values

One representor has advised that, "The data used to develop the draft interim water quality guidelines is patchy and skewed, and there is much better baseline data available that was collected as part of the Derwent Estuary Program's Derwent Catchment Monitoring Program over a two-year period (August 2015 to August 2017). This data set also provides good seasonal coverage."

The EER (Table 11) presents catchment default guideline values, and preliminary site specific water quality guideline values (SSWQGV), based on the proponent's own data. The EER (3.3.2.1) acknowledges that the sample collection was unbalanced across years, seasons and parameters, and ideally, would have an even distribution of annually collected data for all seasons and parameters. It also acknowledges that the statistics are skewed, as a consequence, toward winter and autumn conditions. SALTAS Commitments 7 and 8 relate to annual reporting on monitoring data and a review of all monitoring data, including the preliminary water quality guidelines values and interim effluent limits, after 6 months of normal operations (post commissioning). This is supported, and is facilitated by **Conditions RP1** and **G8**.

EPA Tasmania is aware of the data collected by the Derwent Estuary Program and it will be taken into account when determining draft SSWQGV. The limit of detection (LOD) and the Limit of Reporting (LOR) are critical when determining appropriate WQGV. All samples must be collected and processed in accordance with Australian Standards, and the National Association of Testing Authorities (NATA) accredited methods. The samples must also be tested in a laboratory that is accredited by NATA (**Condition MI**). All monitoring plans should also be consistent with the AGWQMR.

Ambient monitoring is required to establish SSWQGV that will replace the default guideline values for the Upper Derwent catchment presented in the EER. Water quality data for receiving waters in the vicinity of the hatchery will be reviewed when the performance of the drum filters is reviewed. Interim effluent quality limits for discharge to the Derwent River have been set on the basis of current and expected levels of performance, and will be reviewed after commissioning and operation of the treatment process, including the drum filters under peak production. Future upgrades and continual improvement, where practicable, reasonable and consistent with Clause 17.2 of the *State Policy on Water Quality Management* (SPWQM), will be expected for this activity.

The information presented in the EER suggests that additional water quality data must be obtained for at least the spring, summer, and autumn seasons to capture a comprehensive set of seasonal and operational variation in the water/effluent quality.

Condition M6 formalises the requirement for accurate geographic references for sampling locations, such as GPS co-ordinates or grid references, to be submitted to the Director of the EPA.



Contingency measures (alternative options for Wastewater Management)

One representor suggested that alternative options be considered for the treatment of the effluent. Once clarified, the sludge-effluent stream will be returned to the drum filter inlet. There is a risk that the clarification process, for the sludge-wastewater stream, will have accumulated elevated concentrations of dissolved nutrients. Effluent discharged to the Derwent River must comply with the interim effluent quality limits (**Condition EF2**). If exceedances of the interim effluent quality limits occur, and are found to be linked to the clarified effluent stream, the screened sludge wastewater would be diverted to a storage tank for alternative disposal. Additional treatment before discharge may also be considered.

Therapeutic treatment chemicals

One representor was concerned that therapeutic substances may be released to surface waters. Therapeutic chemicals should be used consistent with the registration requirements for each chemical under the Australian Pesticides and Veterinary Medicines Authority (APVMA) and all chemicals must be managed consistent with the relevant advice provided in applicable safety data sheets (SDS). **Condition M7** requires that SALTAS identify all chemical additives that may come into contact with the hatchery flow-through water and chemical residues that may be found in the effluent as a result. A list of the chemicals and associated residues must be provided to the Director, before these are used at the hatchery. As part of the water quality monitoring, **Condition M3** requires that the hatchery effluent is monitored for the listed chemical residues.

Therapeutants and cleaning chemicals in waste that is applied to land must not be in concentrations that would cause them to pollute or persist in the environment (**Condition OPI**). Refer to evaluation of Issue 7 for further discussion of therapeutic and cleaning/disinfectant chemicals.

Aquatic communities and ecosystem health

To understand the potential for second-order and third-order interactions between the receiving environment and the effluent, biological monitoring must be undertaken at sites downstream of the hatchery. **Condition M4** is imposed as a standard condition for all inland fish farm related environmental licences. Biological monitoring involves sampling and measurement of macroinvertebrates, algae and stream shading as indicators of aquatic ecosystem health.

Biological sampling must be timed to represent an autumn sample and a late spring sample each year to capture seasonal differences in the receiving environment and response to stressors and pollutants from the effluent. The biological monitoring is undertaken in the Derwent River in suitable riffle habitat at approximately 60 metres and 200 metres downstream of the hatchery. The biological monitoring sites are required to align with the water quality monitoring sites.

Stormwater management

During the construction period, the ground works in the settlement pond are likely to disturb the soil, making it prone to erosion. Refer to discussion and evaluation of Issue 8 below.

Conclusion

In addition to the general administrative conditions of the Environmental Licence, to address the environmental issues identified in this assessment, the proponent will be required to comply with the following conditions:

Condition GI Regulatory limit

Condition G9 Additional requirements for Annual Environmental Review



Condition GI3	Discharge management plan
Condition EFI	Effluent discharge from the fish farm
Condition EF2	Interim effluent limits for discharge to the Derwent River
Condition EF3	Mass load limit
Condition OPI	Farm therapeutant and chemical use
Condition OP2	Storage and handling of hazardous materials
Condition OP3	Bypass event recording for effluent treatment system
Condition MI	Dealing with samples obtained for monitoring
Condition M2	Drum screen performance monitoring
Condition M3 the Derwent River	Water quality monitoring requirements relating to the fish farm activity and
Condition M4	Biological Monitoring of the Derwent River
Condition M5 Wayatinah Lagoon	Ambient monitoring of receiving waters for the Derwent River and the
Condition M6	Geographic references for sampling locations



Issue 2: Natural Values (Flora, fauna and habitat)

Description of potential impacts

The Wayatinah Hatchery is predominantly surrounding by native vegetation, classified as *Eucalyptus obliqua* forest with broad leaf shrubs. The catchment area upstream of the hatchery is production forest, managed by Forestry Tasmania, while the catchment downstream is dominated by native eucalypt forest and is owned by Hydro Tasmania. The upper Derwent River flows beside the hatchery land into Wayatinah lagoon, 700 metres downstream.

Wayatinah Lagoon is a declared Hydro Conservation Area under the Tasmanian Nature Conservation Act. The lagoon offers the public places for swimming, paddling and/or fishing in aesthetically pleasing waters. The area is also valued for its wildlife (such as platypus, *Ornithorhynchus anatinus*), biodiversity, native riparian vegetation, relatively low levels of disturbance, high water quality and the natural flows in the aquatic ecosystem. Two listed riparian plant species have been recorded in the vicinity of the hatchery, *Barbarea australis* (Native Wintercress) and Westringia angustifolia (Narrow-leaf Westringia). The water rat (*Hydromys chrysogaster*) has also been observed near the hatchery. The EER considers that none of these environmental values is threatened by the proposal.

Part 3 of the EER considers that no listed flora or fauna species were identified as occurring in the immediate vicinity of the Wayatinah Hatchery. However, the forested environment surrounding the hatchery is identified as highly suitable nesting habitat for the Tasmanian wedge-tailed eagle (Aquila audax fleayi), listed as endangered under the Environment Protection and Biodiversity Conservation Act 1999 and Threatened Species Protection Act 1995.

The EER (Section 3.1) indicates that a major threat to Aquila audax fleayi is the loss of nesting habitat and disturbance of nesting birds. Results of a search of the Tasmanian Natural Values Atlas for observations of the wedge-tailed eagle within the vicinity of the Wayatinah Hatchery showed that the nearest nest was approximately 2.5 km from the Wayatinah Hatchery. Although no known nests were identified within I km of the proposed activity, PCAB advised that noise and visual disturbance from the installation and operation of the drum filters could discourage raptors from establishing nests in the surrounding area. This advice needs to be considered in the context of an existing operating facility, which would already have routine activities of this nature occurring on a daily basis.

Management measures proposed in the EER

The EER (Section 3.7) indicates the nearest wedge-tailed eagle nest is approximately 2.5 km from the hatchery with no direct line-of-sight. The most recent survey, conducted in 2013, noted that the nest was not active. The construction of the drum filter is likely to be undertaken outside of the Tasmanian wedge-tailed eagle breeding season, in the first half of 2019.

The EER also indicates that any noise and visual disturbance associated with the construction of the drum filter infrastructure, is mitigated by extensive areas of highly suitable nesting habitat nearby in the broader region. There is no existing native vegetation within the construction zone area.

The EER states that to avoid potential impacts on the species, industrial operations should avoid heavy disturbance within 500 metres of the nest of a wedge-tailed eagle during the breeding season (FPA 2013). If the eagle is within line-of-sight of the disturbance, the recommended distance is extended to I km. The EER states (based on consultants advice) that these distance-based guidelines have been successful in minimising the effects of forestry disturbance on breeding birds.

Construction to install the drum filters would likely begin prior to the breeding season for wedgetailed eagles. In addition to the considerations of potential impacts on eagles, the EER presents a Construction and Environmental Management Plan (CEMP Attachment H), which states:



- Vegetation outside the construction zone will not be disturbed.
- The design and installation of the drum filters will include noise management.
- The levels of vibration cause by construction activities will be minimised and maintained at acceptable levels.

Public and agency comments

The Policy and Conservation Advice Branch (PCAB) of the Natural and Cultural Heritage Division of DPIPWE advised that the wedge-tailed eagle is listed as endangered under the Tasmanian *Threatened* Species Protection Act 1995 and Commonwealth Environment Protection and Biodiversity Conservation Act 1999. A number of wedge-tailed eagle nests have been recorded within 5 km of the site, but none within 1 kilometre, however this may be due to a lack of survey effort in the area. PCAB further advise that habitat modelling suggests that highly suitable nesting habitat exists within 1 km of the site, and therefore appropriate mitigation measures should be applied.

To minimise potential impacts to wedge-tailed eagles, PCAB recommends that the works be restricted to the period outside of the eagle breeding season, that is, only between February and June (inclusive).

PCAB supports the range of weed, soil and sediment management measures proposed in the proponent's Construction and Environmental Management Plan, including:

- All construction machinery will be cleaned prior to entry to and departure from the site, with all soil and botanical matter to be removed in accordance with DPIPWE's Wash Down Guidelines for Weed and Disease Control.
- All spoil stockpiles will be maintained to industry best practice through the use of sediment fences, earth bunds and appropriate soil stabilisation techniques. This includes re-vegetating stockpiles.
- Controls will be installed to manage the movement of clean and contaminated water around the site. This will include the installation of appropriately sized sediment control basins, gross pollutant traps and other erosion and sediment control measures (sediment fencing, filter socks, etc.).
- Fuel and chemicals to be stored in accordance with Australian Standard for the Storage and Handling of Flammable and Combustible Liquids (AS1940:2017).
- During the construction phase a weed management program will be implemented to minimise the spread of weeds.
- Gravel and other fill materials will be sourced from areas considered to be of low Phytophthora risk.

Evaluation

The proposed construction activity will not involve any disturbance of native vegetation, and is not likely to physically impact on protected flora, fauna or communities. *Pomaderris elachophylla* (small-leaf dogwood) and *Barbarea australis* (riverbed wintercress) listed under the *Threatened Species Protection Act 1995* (TSPA) are present on land title 129645/3, west of and adjacent to the hatchery (also owned by SALTAS). The proposed activity does not present a threat to this flora.

Wayatinah Hatchery is an existing fish farm where the use of heavy machinery and aquaculture equipment has contributed to previous visual and noise related impacts on the surrounding

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environment. For example, the EER indicates that an excavator and/or pumps are routinely used to remove sludge waste from the settlement pond on an annual basis.

According to PCAB, the habitat surrounding the hatchery is identified as highly suitable nesting habitat for the Tasmanian wedge-tailed eagle. However, the Natural Values Atlas does not identify any raptor nests listed under the TSPA within a kilometre of the proposed activity, the closest being 2.5km away.

There is a record of the grey goshawk (*Accipiter novaehollandiae*, listed as endangered under the TSPA) being observed on site at the hatchery in 2018. The sighting of the species should be noted by those responsible for control of rodents and other pests at the hatchery (Refer to Issue 6). The proposed storage of solid organic waste from the drum filter is considered acceptable for this purpose.

To avoid potential impacts on the Tasmanian wedge-tailed eagle, industrial operations should avoid heavy disturbance within 500 metres of an eagle nest during the breading season (FPA 2013). If an eagle is within line-of-sight of potentially disturbing activities, the recommended distance is I kilometre.

The guideline distances, presented in the Forest Practices Authority, *Fauna Technical Note No. 1*, were developed to minimise the effects of forestry operations on breeding birds. These operations typically involve both extensive habitat loss and heavy/prolonged disturbance on breeding eagles. The construction associated with this proposal is not considered to be of the same nature, magnitude or duration as a forestry operation, however SALTAS is aware of the technical note and intends to comply with its requirements.

If SALTAS intends to undertake any construction activities within the Tasmanian wedge-tailed eagle breeding season - July to February, **Condition FFI** will be imposed to require a survey be undertaken to identify whether any wedge-tailed eagles are currently nesting within I kilometre of the proposal area. If construction will occur during the eagle breeding season, the findings of the survey must be submitted to the Director, before construction is started. The location of any wedge-tailed eagle nests within I kilometre of the proposal area must be reported to the Director.

To shroud the activity from wildlife, particularly the Tasmanian wedge-tailed eagle, and to protect riparian vegetation near the hatchery, it is important that the native vegetation surrounding the hatchery is not disturbed. **Condition FF2** requires that SALTAS restrict the activities to install the drum filters to a discrete operational area, as defined in Attachment 2 of the Conditions – Environmental Licence. The operational area is based on Wayatinah Pond Plan - Appendix I of the EER.

Condition G12 is imposed to cover a broad range of environmental management measures to control the potential environmental impacts of the preparatory ground works for the drum filter. The environmental management measures relating to flora and fauna and noise control set the objective of minimising any potential impacts on the natural values surrounding the hatchery.

The implementation of a Weed Management Plan to prevent the introduction and spread of weeds is considered appropriate. The implementation of this Plan will be formalised through **Condition CN2** (refer to Issue 6).

Conclusion

The proponent will be required to comply with the following conditions:

Condition FFI	Pre-construction surveys
Condition GI2	Construction and Environmental Management Plan
Condition CN2	Weed Management



Issue 3: Odour emissions

Description of potential impacts

The EER (Section 3.5) indicates that the activity could cause dust and odour emissions to the air, with potential to affect sensitive receivers at residences approximately I km away and recreational users of Wayatinah Lagoon. The EER suggests that the drum filters will remove a substantial proportion of the solid organic matter (sludge, predominantly fish faecal matter) from the wastewater stream. The wastewater stream and the sludge would be the most significant sources of odour from the operation of the drum filter. Dewatered sludge (18% organic solids) will be separated from the main effluent stream and transferred to enclosed storage tanks located near the drum filters at the hatchery.

Management measures proposed in the EER

The EER (Section 3.5.1) indicates that odorous air emissions are expected to be low or negligible. Solid organic waste (sludge) that is generated onsite would be:

- Dewatered;
- Stored in enclosed polyethylene tanks, which will be emptied once full;
- Removed from the site as required; and
- Transported offsite in an enclosed tanker.

The EER describes a sludge collection system that limits opportunity for air emissions. The sludge stream would be pumped to the dewatering plant, which consists of a Lamella plate clarifier (Figure 6) and a series of aerated/agitated storage tanks. Solid waste in the stream will passively settle out as a concentrated sludge layer in the hopper at the bottom of the plate clarifier system. This sludge layer is then pumped from the hopper and forms a new concentrated sludge, which is stored in polyethylene storage tanks (3×25 cubic metres). A buffer tank of 22 kilolitres in capacity is included to capture any overflow. Section 2.1.5 of the EER indicates that approximately 4.8 kilolitres of dewatered sludge will collect each day in the tanks, which will be emptied by an approved waste management contractor once every 4 days, or as required.

The EER also notes a number of mitigating factors. Employees involved in SALTAS operations have experience from other existing hatcheries (Tassal's Russell Falls and Rookwood facilities), which manage sludge of a similar nature. Staff at these hatcheries reported that odour is only noticeable at distances less than 10 metres from the tank and no obvious odour is emitted from the sludge clarifier. There have also been no complaints from residents close to the other hatcheries in relation to odour.

The nearest residence is located 840 metres north east of the proposed drum filter, with additional residences in the Wayatinah Village, situated on higher ground approximately I km away. The topography of the surrounding land and the dense cover of native vegetation limits airflow from the activity towards residences.

Public and agency comments

One representor raised the issue of potential odour at the waste collection point.

The DPIPWE Air Specialist has advised that the measures/contingencies etc. proposed in section 3.5 of the EER are considered appropriate and adequate at the time of the assessment. The *draft Biosolids Management Plan* (referred to on page 44 of the EER) should be completed and presented to the EPA before the upgraded system is commissioned, to demonstrate that the waste stream can be effectively managed and that the proposed waste receiving facilities hold the necessary approvals.



Evaluation

To minimise the risk of potential impacts to sensitive receptors, solid organic waste (sludge) that is generated by the activity must be contained to an extent that minimises the risk of nuisance odours beyond the boundary of the land. The sludge must not accumulate to volumes that cannot be managed appropriately to prevent odorous air emissions. Arrangements should be made to have the sludge transported from the land within a week of it being generated. The proposed system of collection, storage and disposal of the sludge waste, and the timing for removal from site, is supported.

The dewatered sludge must be kept in enclosed, leak-proof, durable containers, for example, purpose built polyethylene storage tanks. Aeration by agitation of the tanks will reduce the risk of the sludge becoming anoxic, and will avoid releasing odorous emissions to the air. The sludge will be removed from the land as required to sustain the proposed operation and avoid odorous emissions. **Condition WM2** formalises these proposed arrangements.

Sludge Removal

The existing settlement ponds will be upgraded to capture organic solid waste in the effluent smaller than 80 micrometres, after it passes through the drum filters. Accumulations of this waste must be removed ('desludged') from the bottom of the settlement pond each year by approved contractors. The sludge waste must be contained at all times during transport to the site of disposal, being a facility that has approval to receive the waste (**Condition WM2**).

The development of a *draft Biosolids Management Plan* is supported and is likely to be relevant to complying with **Condition A1**, which requires the implementation of odour management measures, as necessary to prevent odours causing environmental nuisance, and additional notification requirements in the event of an odour complaint.

Condition GII is imposed to require the development of a *Sludge Waste Reuse Management Plan*, which must be implemented within 3 months of the Environmental Licence taking effect. The main purpose of this document is to ensure sludge waste is managed consistent with the *Tasmanian Biosolids Reuse Guidelines (DPIWE, August 1999)*. For the purposes of odour management, this plan should refer to relevant aspects of the *draft Biosolids Management Plan* (referred to in 3.5.1 of the EER). The plan should be consistent with **Condition WM2** with respect to the arrangements for storage and removal of sludge waste (as indicated in the EER) and contingent odour mitigation options to ensure compliance with **Condition AI**.

The EER indicates that the sludge would be transported to the Jenkins Composting Facility at Plenty by approved contractors, Spectran Group Pty Ltd. The sludge waste is similar to biosolids produced by wastewater treatment plants and there is an existing waste sector that routinely processes this type of waste. Typically sludge wastes are spread on suitable land or composted for beneficial re-use. Waste sludge is also generated at other SALTAS sites by existing recirculating aquaculture systems. However, no information is presented in the EER to demonstrate that the Jenkins Composting Facility has the approval or capacity to receive the waste. Given the solids produced by the hatcheries are intended for beneficial reuse, the sludge waste must be analysed to confirm it is suitable for the purpose (**Condition GII**).

SALTAS commitment to finalise its Freshwater Hatcheries Wastewater Solids Management Plan is also supported, however any plan relating to the management of sludge waste should be consistent with **Conditions GII, WM2** and **AI**. The standard Condition GI0 is imposed to ensure any complaints are recorded.



Conclusion

The proponent will be required to comply with the following conditions:

Condition WM2	Management and disposal of sludge waste
Condition AI	Odour Management
Condition GII	Sludge Waste Reuse Management Plan
Condition GI0	Complaints register



Issue 4: Noise emissions

Description of potential impacts

Noise emissions from the activity have the potential to cause environmental nuisance. During construction, noise emissions are expected from the mobile crane operations, diesel generator, air compressor, use of heavy machinery for rock removal, earth moving equipment, vehicle loading and other onsite vehicle movements. The use of a rock breaker is expected to generate the highest noise levels during the construction period, with a "worst-case" sound pressure level of 90 dBA at 10 metres.

The EER states the nearest residence is are located approximately 840 metres to the north east. During the EPA site inspection (March 2018) it was noted that the town of Wayatinah is not visible from the site as it is elevated beyond the line of sight and shrouded by native forest as the terrain rises toward the village.

Noise sources associated with the proposed drum filters include the drum spray bars, sludge pump and water pump, with the spray bar being the dominate source of noise. The sludge waste removal system includes the clarifier blowers and diffuser systems and screw press, with the blowers and diffusers being the dominant noise sources. Although these noise sources operate continuously, they are not associated with a sound power level that is likely to be audible at the nearest sensitive receptor.

Management measures proposed in the EER

The EER (Appendix G) suggests that if construction work noise, as observed at the Wayatinah Village, is found to be higher than 55 dBA, noise mitigation measures would be implemented. The EER (Section 3.7) indicates that the dominant noise emissions generated by construction activities are mitigated by:

- The short duration of the excavation works (approximately 3 weeks).
- A shallow noise shadow that starts at around the 280m contour.
- Attenuation over a distance of 840 metres due to sound energy absorption by the atmosphere and a substantial vegetation screen.
- Implementation of the Construction and Environmental Management Plan (CEMP Attachment H) which presents:
 - Restrictions on day and time of construction work hours to 7 am to 7 pm from Monday to Friday and 8 am to 5 pm on Saturdays.
 - Use of noise and vibration control equipment, e.g. mufflers, acoustic enclosures etc.
 - Maintenance, modification or removal of equipment, if noise levels are excessive (amongst other measures).

Public and agency comments

The Noise Specialists advised that a similar drum filter (500 litres per second capacity) observed at the Russel Falls Hatchery, does not emit noise at levels that are likely to cause excessive noise beyond the boundary of the land. The Noise Specialist did not anticipate any problems with extended hours of operation for this activity, including during the construction period.



Evaluation

The proponent is required to comply with permit **Condition CNI**, which relates to operating hours during the construction period. This condition provides some surety that construction noise is unlikely to affect residences in Wayatinah. The condition would formalise the restriction of construction work to daytime hours, but would alter the standard operational hours on Saturday. The standard operational hours are 7 am to 6 pm Monday to Friday, 8 am to 4 pm on Saturdays and not on Sundays or public holidays. However, **Condition CNI** is slightly more lenient as it allows extended operational hours to 5 pm on Saturdays. The management measures proposed to minimise the risk of noise nuisance are considered appropriate and supported.

SALTAS must comply with the standard **Condition G12**, which requires that the Construction and Environmental Management Plan (CEMP Attachment F) be implemented for construction activities. The objectives of the Plan include:

- Setting requirements for noise management during construction as part of design and procurement activities.
- Ensuring that levels of vibration from construction activities are acceptable.

The Plan cites mitigation actions such as:

- Additional noise reduction measures.
- Restricted operational hours for construction equipment and vehicles.
- Consultation with nearby residences.
- Any noise complaints to be addressed by implementing remedial measures.
- Noise monitoring during construction to check compliance.

The general management measures outlined in the CEMP apply to the construction activities and are considered appropriate for avoiding excessive noise emissions during the construction period. The CEMP also outlines an agenda for construction activities that avoids and minimise various other environmental issues, including erosion of soils, contamination of surface water and waterways, noise nuisance, dust, hazardous materials, flora, fauna, weeds, pests and pathogens (refer to other issues).

The standard **Condition GI0** is imposed to ensure any complaints relation to noise are recorded.

Conclusion

The proponent will be required to comply with the following conditions:

Condition CNI Operating hours – Construction



Issue 5: Solid waste

Description of potential impacts

Any servicing of machinery on the land may produce solid and liquid wastes, such as oil, oil filters, used tyres etc.

The drum filter is part of the sludge waste treatment system (Figure 5), which will routinely produce solid organic waste (sludge) at a rate of approximately 4.8 kilolitres per day. The risks associated with the sludge derived from the drum filters relate to biosecurity and odorous emissions beyond the boundary of the land (Air Environment Protection Policy). Refer also to discussion on Issue 3 and Issue 6.

A lack of capacity to manage the sludge waste would present a risk of generating odorous emissions that could cause environmental nuisance beyond the boundary of the land (refer also to Issue 3). Large volumes of sludge waste could also become a source of leachate with a high nutrient and BOD load. As the sludge is likely to contain fish tissue and meal, it may also carry pests and pathogens, including parasites, and is a Restricted Animal Material (RAM), within the meaning of the Animal Health Regulations 2016 (discussed further in Issue 6).

Management measures proposed in the EER

Drum Filters

The EER (Section 2.1.2) indicates the proposed drum filter would remove solid particles from the hatchery effluent by passing it through a fine mesh filter with aperture size of 80 μ m. The filter mesh is attached to a rotating mechanical drum, which rotates at a predefined speed to optimise the capture of sludge waste. As the solid particles (>80 μ m) build up on the filter panels a sludge cake layer is formed, which is washed off the screen by a backwash spray bar into an internal trough. A transfer pump delivers the backwashed wastewater stream to a dewatering plant, consisting of a Lamella plate clarifier (Figure 6) and a series of agitated storage tanks.

The dewatering plant facilitates:

- Passive settlement of solid particulates from the backwashed waste stream, thereby concentrating the sludge to a higher percentage of solid content.
- Return of clarified wastewater returned to the drum filter inlet.
- Formation of a sludge cake layer at the bottom of the hopper.
- Isolation of a concentrated waste sludge stream, which can be pumped to aerated/agitated storage tanks.

4.8 kilolitres per day of sludge waste would be generated and transferred to the storage tank. Once settled into a concentrated mass, the water is decanted off the top, leaving a sludge waste of approximately 18 percent solids. The volume of waste sludge that is removed from the wastewater stream is dependent on biomass and feeding rates of the fish and is estimated to be 168 kilograms per day of solid organic material (dry weight).

The storage tanks will be pumped out by an approved sludge removal contractor.

Each of two drum filters has been designed to accommodate a 100% flow rate, to be able to manage any cases of drum filter malfunction or required maintenance. Scheduled maintenance of the drum filters would occur outside of peak biomass periods at the hatchery.



Public and agency comments

One representor was concerned that the anticipated organic waste (28.1 wet tonnes per month) is an average (mean) figure, which may be exceeded in the seasons with the highest biomass. The representor questioned who would regulate this waste.

Evaluation

The management measures outlined in the EER (Section 2.1.5) are supported. The draft *Tassal* Freshwater Hatcheries Wastewater Solids Management Plan, referred to in the EER should be replaced by a Sludge Waste Reuse Management Plan. This plan must be developed specifically for the Wayatinah hatchery and should document all arrangements relating to the management of sludge waste, as required by all relevant conditions of the Environmental Licence. The management of organic solids must comply with **Conditions GII**, WMI and WM2. The plan should include, but not be limited to:

- Annual removal of the sludge that accumulates in the settlement pond
- Dewatering of the sludge waste
- Enclosure and containment of the sludge waste during onsite storage and transport
- Regular removal of sludge waste by authorised persons to an approved site (and associated authorisations)
- Treatment of sludge waste as Restricted Animal Material (RAM)
- Any biosecurity measures required by the Inland Fisheries Act 1995

Condition WM2 (described for Issue 3) formalises the requirements for the management and disposal of sludge waste. Sludge waste must be appropriately contained, irrespective of the volume, to prevent odours becoming a nuisance beyond the boundary of the land and the potential for leachate to contaminate surface and groundwater. The EER (Appendix B) indicates that 3 polyethylene storage tanks, each with a capacity of 25 cubic meters, will be installed. These tanks must be designed to contain liquid and restrict air emissions. The number and volume of the tanks indicates there should be excess storage capacity during normal operations. Sludge waste must not be disposed on the land or allowed to accumulate on site, other than in the dedicated storage tanks. Organic waste should also be managed and disposed of consistent with the management measures referred to in 3.5.1 of the EER.

Condition GII (described for Issue 3) is imposed to require the development of a Sludge Waste Reuse Management Plan. This document must be developed consistent with the *Tasmanian Biosolids Reuse Guidelines* (*DPIWE, August 1999*) and **Condition WM2**. These guidelines were written for operators of municipal wastewater treatment plants, however, the principles within the document can be applied to the management and beneficial re-use of drum filter sludge waste, with respect to best environmental management practices for characterising, treating, biosecurity, application, monitoring and record keeping.

The SALTAS Commitment 4 to finalise its Freshwater Hatcheries Wastewater Solids Management Plan and obtain the appropriate transport and disposal approvals before commissioning the drum filters, is supported. However, this plan has not been reviewed by the EPA Board, and any plan for the management of the sludge waste should be consistent with **Condition WM2** and **GII**.

The sludge must be disposed of to a facility that has approval to receive the waste. Evidence of this will be sought in EPA Tasmania compliance auditing or the by the regulatory authority for the waste approval.

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All waste generated on site must be managed in accordance with the Environmental Management and Pollution Control (Waste Management) Regulations 2010.

Standard Other Information, **Condition OII**, relates to appropriate management of general solid and liquid waste that may be generated by the maintenance of equipment and infrastructure.

Conclusion		
The proponent will be required to comply with the following conditions:		
Condition WMI	Management of Wastes Containing Restricted Animal Material	
Condition GII	Sludge Waste Reuse Management plan	
Condition OII	Waste management hierarchy	



Issue 6: Weeds, pests, pathogens and biosecurity

Description of potential impacts

The wastewater and sludge waste generated by the activity presents a potential biosecurity risk to aquaculture downstream.

The movement of machinery and equipment to and from the Land, for the proposed construction activities, could translocate weeds and pathogens onto the land or from the land into other areas of the State.

According to the EER, there are localised patches of the declared weed, *Genista monspessulana* (Montpellier Broom).

Management measures proposed in the EER

The EER (Section 3.2) indicates that during the construction period, weed management measures to be implemented will include:

- Sourcing gravel and fill from areas considered low risk of importing phytophthora to site.
- Excluding weed materials from vegetation to be mulched.
- Cleaning all construction machinery prior to entering and exiting the site in accordance with the Wash Down Guidelines for Weed and Disease Control Edition 1 (DPIPWE, 2004).

The Wayatinah Hatchery implements existing internal policies to ensure biosecurity is managed effectively including:

- ENV-001 Waste Management Policy
- ENV-002 Biosolids Management Policy
- WHS-022 Biosecurity Visitor Policy
- WHS-023 Biosecurity Staff Policy

The sludge waste generated from the drum filter will be managed in accordance with the draft *Tassal Freshwater Hatcheries Wastewater Solids Management Plan*. The biosecurity controls requirement outlined in the Plan are listed below:

- Sludge storage tank and buffer tank are enclosed.
- Sludge storage tank inspected on a weekly basis and maintained to be fit for purpose.
- Sludge is removed by an authorised contractor every 4 days.
- Sludge will be transported in an enclosed tanker.
- Waste transport contractor required to implement a truck wash-down procedure for all vehicles before to entering the hatchery site.
- Waste transport contractor required to carry adequate spill prevention and implement control procedure as required.



Public and agency comments

PCAB noted and supports the proposed implementation of a weed management program to minimise the spread of weeds. PCAB also noted and supports management controls relating to the sourcing of gravel and other fill materials from areas considered to be low phytophthora risk.

Evaluation

The sludge waste, generated by the operation of proposed drum filters, contains 'restricted animal material' (RAM). RAM is defined as any material taken from a vertebrate animal other than tallow, gelatine, milk products or oils. In this case, the RAM is any waste containing fish tissue or fishmeal, including fish farm sludge waste. In accordance with the Tasmanian *Animal Health Act 1995* and *Animal Health Regulations 2006*, ruminant stock must be prevented from accessing land where salmon derived RAM has been disposed. Where the RAM has been land spread, a minimum withholding period of 21 days applies to the area (**Condition WMI**).

The management measures outlined in the EER (Section 2.1.5) are supported for the purposes of general biosecurity. The implementation of the proposed management of organic solids will be formalised through **Conditions GII**, **WMI**, **WM2** and **LO3** (Refer to evaluation of Issue 6)

Condition WMI requires that all wastes containing fish, including sludge waste, must be treated as Restricted Animal Material (RAM). Ruminant stock must not be allowed to access RAM.

Condition G5 is a standard condition that is imposed on all Environmental Licences to require that EPA Tasmania be made aware of any significant deaths of salmonid stock at the hatchery. EPA Tasmania would involve other relevant authorities in the event of a biosecurity incident.

This inclusion of the conditions above are appropriate for reasons that, while the drum filters do not necessarily alter any biosecurity risks with respect to the Wayatinah Hatchery, the change in the activity may alter the number and characteristics of vectors for translocation of pests and pathogens.

Three species of weed Genista monspessulana (montpellier broom), Rubus fruticosus (blackberry) and Cirsium arvense var. arvense (creeping thistle) have been recorded in the road reserve within 15 m of the land. Cytisus scoparius (English broom) and Cortaderia sp. (pampas grass) have also been recorded in close proximity to the land. The implementation of a Weed Management Plan to prevent the introduction and spread of weeds is considered appropriate. The Board notes and supports the cleaning of construction machinery in accordance with the DPIPWE Wash Down Guidelines for Weed and Disease Control before entry to the site. Implementation of the Plan and relevant measures in the EER will be formalised through the standard, outcome based weed management condition (Condition CN2), requiring that weeds not be spread by the movement of construction vehicles and equipment to other locations, and the land be kept free of weeds, ongoing.

Noting the record of the grey goshawk (*Accipiter novaehollandiae*, listed under the TSPA), provisioning of wildlife should be avoided and pest control should be designed to avoid potential impacts on native fauna. No condition was deemed necessary, because the solid waste derived from the drum filter must be kept sufficiently contained and not accessible to pests and native wildlife.



Conclusion

The proponent will be required to comply with the following conditions:

Condition WMI Management of Wastes Containing Restricted Animal Material

Condition G5 Notification of fish or ova mortality

Condition CN2 Weed management



Issue 7: Environmentally hazardous substances

Description of potential impacts

Inappropriate management of chemical wastes and other environmentally hazardous materials has the potential to contaminate land and water. The DPEMP indicates that a wide range of chemicals is used at the Wayatinah Hatchery. These include fuels (petrol/diesel) and chemicals used in aquaculture for adjusting water chemistry, cleaning and disinfection.

Therapeutic substances and cleaning chemicals, in particular, will not be removed by the drum filter screens and present a risk to surface water quality, as discussed under Issue 1.

Management measures proposed in the EER

Refer to the EER Section 3.3.4 and 3.10, which indicate that the following measures will be employed to facilitate the appropriate management of environmentally hazardous materials.

- Use of all chemical agents in accordance with manufacturer's guidelines.
- Containment and disposal procedures consistent with the standards advised in the relevant safety data sheet.
- Spill controls and clean up kits to be kept on site.
- Construction personnel trained to transfer fuels and manage spill clean-up.
- All hazardous substances to be managed in accordance with Australian Standard (AS 1940:2017) Storage and Handling of Flammable and Combustible Liquids.

Public and agency comments

One representor was concerned about the use of therapeutic treatments and the potential for these substances to be released to nearby waterways.

The Water Specialists advised that therapeutic chemicals must not be allowed to enter waterways (for details, refer to the Water Specialist's comments under Issue I).

Evaluation

Small amounts of Environmentally Hazardous Materials, such as unleaded petrol/diesel and cleaning chemicals can be used and stored on site during the operation of the hatchery and drum filters. To facilitate appropriate management, **Condition OP2** requires that all environmentally hazardous materials to be held on the Land, must be kept within containment systems such as impervious bunded areas or spill trays. Discharge, emission or deposition of any environmentally hazardous materials must be prevented.

Therapeutants, disinfectants, cleaning chemicals and residues of these substances must be contained to prevent pollutants reaching any surface waters or groundwater (**Condition OPI**). The proposed drum filter and supporting infrastructure is not designed to treat waters contaminated with these types of chemicals. Refer also to the evaluation section of Issue I.

The EER (Table 15), for example, indicates that Chloramine T and Virkon^R Aquatic are chemical agents used at the hatchery. Chloramine T is an algaecide that is known to be toxic to fish and other organisms. It is otherwise known as N-Chloro-p-toluenesulfonamide, sodium salt or Tosylchloramide

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sodium. The product and its residues must be contained to prevent pollutants reaching any surface waters or groundwater. The substance presents a risk to drinking water.

Virkon[®] Aquatic (version 3) is an industrial disinfectant that is known to be harmful to aquatic life with long-term adverse effects in aquatic environments. It is comprised of pentapotassium bis(peroxymonosulphate) bis(sulphate), sodium C10-13-alkylbenzenesulfonate, malic acid, sulphamidic acid, sodium toluenesulphonate, dipotassium peroxodisulphate. It can decompose to form sulphur dioxide and chlorine.

Correct handling, storage and containment systems are considered to be sufficient to manage the use of these substances and minimise the risk of them being released to surface waters or groundwater.

Conclusion

Conditions OPI and OP2 are imposed under Issue I



Issue 8: Stormwater, sediment and run-off

Description of potential impacts

The proposed construction may expose soil surfaces, making these areas vulnerable to erosion and sediment loss during rainfall events. Construction involves excavation of 15 cubic metres of material for installation of the drum filters and effluent diversion pipework. Sediment carried in surface runoff has the potential to reduce the water quality of the receiving waterway (Derwent River and Wayatinah Lagoon).

Management measures proposed in EER

The EER (Section 3.3.5) indicates that the proposed construction works will not affect the existing stormwater drainage systems in the surrounding area. All ground disturbed by construction will be stabilised. To prevent erosion of the new finished surface, drains will be installed to direct stormwater to the settlement ponds.

The Construction and Environmental Management Plan (Appendix H) describes the following management measures:

- Protection of spoil stockpiles, using sediment fences, earth bunds and appropriate soil stabilisation techniques.
- Establishment of appropriately sized sediment control basins, use of gross pollutant traps.
- Contaminated water to be removed from the site to an approved treatment facility.
- Regular monitoring and maintenance of stormwater management infrastructure.

Public and agency comments

None.

Evaluation

During the construction period the ground works in the settlement pond are likely to disturb the soil, making it prone to erosion. The Construction and Environmental Management Plan (**Condition G12** - refer also to Issue 2) includes several appropriate management measures to minimise the risk of soil erosion and sedimentation caused by stormwater transporting it to other areas. The CEMP **Condition G12** is a standard condition, which covers a broad range of other environmental management measures to avoid and minimise potential impacts of the preparatory ground works. The broad objectives and management measures outlined in the SALTAS draft CEMP are supported for stormwater management. SALTAS has committed its construction contractors to implementation of this plan, including undertaking training as specified in the CEMP. However, a greater level of detail, with respect to avoiding surface water contamination, is required in the final plan.

Stormwater that collects on other areas of the land must be directed towards natural drainage lines and away from the construction works, so as to minimise the flow of stormwater into areas of disturbed sediment or contaminated areas (construction zone).

Condition CN3 is imposed to require that management measures are implemented to prevent stormwater from entering the construction zone.

Any sediment transported in stormwater run-off must be retained on the land to help prevent contamination of the receiving waterway (Condition CN4). SALTAS proposed use of sediment control basins, traps, fences and bunds to control stormwater is supported. After construction has



been completed and the land has been stabilised, existing surface drains around the drum filter structure can be used to direct clean stormwater to the settlement pond. This proposed management measure is important to ensure ongoing prevention of erosion and to reduce the volume of water that may become contaminated by traversing other parts of the site.

Conclusion

The proponent will be required to comply with the following conditions

- **CN3** Stormwater to be excluded
- **CN4** Retention of sediment



7 Other Issues

The following issues have been raised during the assessment process and are mentioned below. These are issues that are not the Board's responsibility under the EMPC Act, or issues more appropriately addressed by another regulatory agency.

I. Health and safety

Operation of a drum filter may present hazards from a health and safety perspective. These may relate to the mechanics of the infrastructure, the nature of the biological waste generated by the activity, or pollutants that are not removed by the system. These issues are overseen by the Tasmanian Department of Health and Human Services, which administers the *Public Health Act 1997*, and WorkSafe Tasmania, under the *Work Health and Safety Act 2012*.

2. Biosecurity management plan

While weeds, pests, pathogens and biosecurity have been considered under Issue 6 (above), a biosecurity management plan has not been required for this Environmental Licence. The management measures specified under Issue 6 relate to the proposed drum filters and are not intended to address all biosecurity risks associated with the hatchery and it operation. The Tasmanian Inland Fisheries Service administers the *Inland Fisheries Act1995*, and if required, a Fish Farm Management Plan could be developed for the broader hatchery operation.

3. Water allocation

The broader hatchery operation relies on an influent water flow of between 600 and 900 litres per second. This allocation of water is via a non-consumptive annual water licence of 31,572 ML for the purposes of aquaculture. The water licence is administered by DPIPWE with an assumed on-ground management within a hydro water district by Hydro Tasmania.



8 **Report Conclusions**

This assessment has been based on the information provided by the proponent, Salmon Enterprises of Australia Pty Ltd (SALTAS), in the permit application and the case for assessment (the EER).

This report incorporates specialist advice provided by EPA Tasmania scientific specialists and regulatory staff, other Divisions of DPIPWE and other government agencies, and has considered issues raised in public submissions.

It is concluded that:

- 1. the RMPS and EMPCS objectives have been duly and properly pursued in the assessment of the proposal;
- 2. the assessment of the proposed activity has been undertaken in accordance with the Environmental Impact Assessment Principles of the EMPC Act.; and
- 3. the proposed activity is capable of being managed in an environmentally acceptable manner such that it is unlikely that the objectives of the EMPC Act (the RMPS and EMPCS objectives) would be compromised, provided that the environmental licence appended to this report is issued and served and its requirements are duly complied with.

The environmental conditions appended to this report are a new set of operating conditions for the entire activity that will supersede the existing Environmental Licence for the SALTAS Wayatinah Hatchery.

It is likely that amendments will be made to the conditions of the Environmental Licence in the future to ensure that the set of Environmental Licence conditions are complete and sufficient for the ongoing, broader hatchery activities.



9 Report Approval

Environmental Assessment Report and conclusions, including environmental conditions, adopted:

Warren Jones CHAIRPERSON BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

Meeting date: 5th February 2019



10 References

- 1. Derwent Estuary Program; River Derwent and Catchment Tributary Water Quality Report. Hobart, Tasmania (dated July 2018).
- 2. Department of Primary Industries, Water and Environment; Environmental Management Goals for the Tasmanian Waters, Derwent River Catchment (dated April 2003).
- 3. Environment Protection Authority, Tasmania; State Policy on Water Quality Management 1997. Hobart, Tasmania.
- 4. Forest Practices Authority; Fauna Technical Note No. 1 Eagle nest searching, activity checking and nest management Page (dated May 2015, Version 2.9).
- 5. Government of Tasmania, Services Tasmania; Land Information Services Tasmania (ListMap) https://maps.thelist.tas.gov.au/listmap/app/list/map
- 6. Department of Primary Industries, Parks, Water and Environment, Natural and Cultural Heritage Division; Natural Values Atlas Version 3.7.0; (Website: https://www.naturalvaluesatlas.tas.gov.au/ - accessed January 2019)
- 7. Salmon Enterprises of Tasmania Pty Ltd (SALTAS) Wayatinah Hatchery, Construction and Operation of Drum Filter Environmental Effects Report (dated October 2018).



II Appendices

- Appendix I Summary of public and agency submissions
- Appendix 2 Environmental Licence Conditions No. 9839/2
- Appendix 3 SALTAS Table of Commitments



Appendix I – Summary of public representations and agency submissions

Saltas Enterprises of Tasmania Pty Ltd – Drum Filter Project Wayatinah Hatchery, Wayatinah

In the following table, EER means the document titled Saltas Enterprises of Tasmania Wayatinah Hatchery, Construction & Operation of drum Filters, Environmental Effects Report, October 2018.

TABLE 1: MATTERS RAISED DURING THE PUBLIC CONSULTATION PERIOD

Representatio n No./ Agency	EER secti on no.	EER Page no.	Comments and issues	Jes Further EPA comment Info requested		
Christine Coughanowr			Both hatcheries will continue to discharge significant loads of dissolved nutrients, particularly during summer and autumn, when water levels are low and risks are highest.	No	The proposal represents improvement to an existing activity. There is an expected reduction in dissolved nutrient loading overall due to removal of nutrients derived from the decomposition of organic solids.	
			There are a number of downstream drinking water supplies, including at Wayatinah, Meadowbank and Bryn Estyn. Nutrients can stimulate algal blooms in downstream lakes, reservoirs and estuaries. These blooms can include both nuisance blooms as well as toxic and taste/odour producing algae, such as those that have previously affected the Hobart water supply.	No	The Wayatinah off-take is located above Wayatinah Lagoon, and is not affected by the hatchery. The Meadowbank and Bryn Estyn offtakes are located more than 20 km downstream from the hatchery. Any influence of the hatchery on the water quality at these two off- takes could not be differentiated from other sources.	
			Concerned with the proposed discharge of effluent directly to the downstream waterways during the 5-month construction/commissioning period, during the period of highest smolt biomass and during summer/autumn months.	No	The improvement to an existing activity will be undertaken at a time that is workable and accounts for other environmental factors that may be	



	The option of reducing biomass during the construction period needs to be considered.		affected by the proposed construction activities.
	The upper Derwent catchment, having exceptional water quality and significant natural values and recreational activities. Both hatcheries require a more comprehensive strategy that addresses both solids and nutrients.	No	The drum screens will not remove dissolved nutrients from the effluent stream but there is an expected reduction in dissolved nutrient loading overall.
	Further detail is needed as to how and when both of these hatcheries will be brought up to Accepted Modern Technology (AMT) standards. Alternatively, relocation to more suitable sites should be considered.	No	The proposal represents improvement to an existing activity. A monitoring program will be a condition of the permit, and will be used to inform strategies for further improvement of the activity's environmental performance.
Christine Coughanowr	What quantity and proportion of solid waste and particulate/dissolved nutrients will be removed?	No	The proposal represents improvement to an existing activity. This information will be obtained after commissioning, with options for further improvements.
	There is much better baseline data available, which was collected as part of the Derwent Estuary Program's Derwent Catchment Monitoring Program. This data should be used as the basis for setting water quality targets for both hatcheries.	No	Noted. It is considered that the collective dataset of existing and future data and other datasets such as those collected under the DEP will provide a more comprehensive basis on which to set future water quality targets.
	What is the source of the data used to generate the 'Upper Derwent Water Quality Guidelines', and how were these derived? These may not be suitable - particularly for the Florentine, which is somewhat unusual in the Derwent system, with relatively high conductivity and nitrate-nitrite levels, associated with the upstream dolomite geology.	No	SALTAS used its own water quality monitoring data which it collected from upstream and downstream of the Wayatinah and Florentine Hatcheries, and at the hatchery, since May 2015. The EER was also informed by similar data gathered by EPA Tasmania from January to June 2017.



			Is there much in the way of summer flow in this section of the Derwent, or is this flow primarily from the hatchery?	No	The 20 th percentile values of the monthly average flow above the hatchery, since 1989 for the months, December January and February are 916, 785 and 804 litres per seconds, respectively. The hatchery's water use is not consumptive, therefore, the flow below the hatchery is expected to be the same.
			What quantities of therapeutic treatments are used and when? Which of these therapeutics are used in the flow through systems, and how much enters receiving waters?	No	Permit conditions will be used to regulate the use of therapeutic treatments.
			The ASC-required BFEIA and the biannual macroinvertebrate survey results should be provided to better document conditions upstream and downstream of the hatcheries. Do they include summer/autumn low flow conditions, when biomass levels at the hatcheries are highest?	No	Biannual (autumn and late spring) macroinvertebrate monitoring is a condition of the Environmental Licence, which will be reported to EPA Tasmania. A summary of this information will be available to the public in the Annual Environmental Review document.
Derwent Estuary Program	2.1.1	7	Drum filters do not remove dissolved nutrients. Additional treatment would be required to remove dissolved nutrients. How effective are drum filters in removing solids? Downstream monitoring?	No	The proposal represents improvement to an existing activity. This information will be obtained after commissioning, with a view to better environmental outcomes through continual improvements.
	2.1.2	12	How effective are drum filters in removing solids?	No	Comment above applies
	2.1.2	12	Is the current settlement pond better than nothing for the duration of drum filter construction?	No	EPA monitoring in 2017 found that the effluent deteriorated or remained unchanged by passing through the ponds.
	2.1.2	12	The additional diversion infrastructure will be used for maintenance and emergencies? How often could that happen and will these events be reported to EPA / made public?	No	A condition of the Environmental Licence requires SALTAS to record the detail of each bypass event. A summary of this information will be available to the public



				in the Annual Environmental Review document.
2.1.2	12	What are the potential impacts of installing the system as soon as possible verses construction during low biomass season and/or high river flow rate season?	No	Installing the screens sooner is better, considering the current performance of the existing settlement ponds.
2.1.5	14- 15	How often will concentrations of dissolved nutrients be monitored to verify that the water from the plate clarifier does not increased concentrations of dissolved nutrients when it is returned to the drum filter inlet? Could anoxic conditions develop at any stage during this process, which could potentially increase dissolved concentrations of nutrients?	No	Monitoring during commissioning will be required to verify the volumes and concentrations and any anoxia issues will be conditioned in the licence. Management controls are presented in the EER, including the option for diversion to a storage tank for off-site disposal.
	15- 16	The anticipated waste could be greater than average during high biomass season. Who will regulate the removal of the waste?	No	The licence will be conditioned to require that the sludge is disposed of to a facility that has approval to receive the waste. Evidence of this will be sought in compliance auditing by the regulatory authority for the waste approval.
	20	SALTAS has operated the site since 1987 with effluent flow downstream into the Wayatinah Lagoon (a declared Hydro Conservation Area). If the proposal's statement on the inefficiency of the settlement pond is true, how much has the Wayatinah Lagoon already acted as a 'natural' settlement pond? What is the impact of 30 years of hatchery solids on the lagoon?	No	The assessment process will consider the need for monitoring of the Wayatinah Lagoon as part of the receiving environment.
3.3.1 .2	34	The upper value of the detection limit was used when parameters fell below detection limit. The background concentrations are overestimated, therefore, this is an issue for calculating nutrient mass loads from the hatchery. If background values fall below the limit of detection (LOD), how can the natural nutrient levels be assessed?	No	EPA Tasmania will conduct a review of the raw data using the EPA data protocol, which is to halve values below the limit of reporting when it is deemed that best practice analytical methods have been used to reduce the LOD as much as reasonably practicable.



	3.3.2 .2	41- 43	Who will review the interim effluent quality limits?	No	The limits will be reviewed by EPA Tasmania after commissioning and operation for 12 months and, where appropriate, will be lowered.
Derwent Estuary Program	3.3.5	43	Where does the sludge waste go and who will inspect this?	No	EPA Tasmania will ensure regulatory compliance against Environmental Licence conditions.
	3.14	49- 50	Sufficiency of the future monitoring program? Will future monitoring results be reported to EPA and/or available to public?	No	Permit conditions will be used to regulate monitoring of the activity and its impacts. Results of the monitoring program will be available to EPA Tasmania
Environment Tasmania			The proposals are inadequate to address the full extent of the current pollution loads into the respective catchments. Only a best practice solution should be considered.	No	The proposal represents improvement to an existing activity. Additional information will accumulate through a future monitoring program that will be a condition of the Environmental Licence, and will be used to inform strategies for further improvement of the activity's environmental performance.
			The proposal does not remove the dissolved nutrients from the water. Given the importance of these water catchments the process is not fit for purpose and not best practice. Alternative solutions are available.	No	Comment above applies
			Both hatcheries will continue to discharge significant loads of dissolved nutrients into the waterways, with continuing likely impacts. Discharge of pollutants to waterways can cause algal blooms and pose a significant ongoing risk to the health of the waterways.	No	Comment above applies
			Costs of lesser quality filtration systems may be outweighed by costs incurred by downstream users.	No	Comment above applies



Appendix 2 – Permit conditions – Environmental Licence No. 9839/2

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Appendix 3 – SALTAS Table of Commitments (Based on Table 17 of the EER)

Number	Phase of activity	Commitment	Timeframe
1	Construction	A Construction Safety and Environmental	Completed
	phase	Management Plan (CEMP)will be implemented, appropriate to the construction complexity and risks	(Appendix F)
2		Training of the management requirements contained in the CEMP will be provided to contractors prior to commencement of construction	Before construction
3		Development and implementation of a weekly inspection checklist of the CEMP	On-going
4	Operation phase	Finalise the draft <i>Tassal Freshwater Hatcheries</i> <i>Wastewater Solids Management Plan</i> including obtaining the appropriate transport and disposal approvals	Before commissioning
5		Undertake fortnightly water quality sampling as per parameters outlined in Table 16 and at the locations outlined in Figure 11.	Ongoing
6		Undertake a short-term intensive monitoring of effluent discharge for periods of 24-48 hours is proposed to be undertaken on a quarterly rotation over a period of 18 months to assess the degree of diurnal and seasonal variability in water quality parameters	Ongoing

Environmental Assessment Report – Salmon Enterprises of Tasmania Pty. Limited – Drum Filer Project, Wayatinah | Appendix 3





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Attachments

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Attachment 2: The Operational Area (modified: 18/	/01/2019 17:11) 1 page

Schedule 1: Definitions

90th percentile means the value at which the relevant parameter is exceeded by no more than 10 percent of all sample results over a twelve month period.

Activity means any environmentally relevant activity (as defined in Section 3 of EMPCA) to which this document relates, and includes more than one such activity.

Chemical additive means a chemical substance that is used for the purposes of the activity.

Chemical residue means the trace of a chemical or its breakdown product, which remains present over time.

Construction means activities associated with the construction phase of the activity, including but not limited to, activities associated with the clearance of vegetation, site works to create a level site, rock breaking, installation of fences and other infrastructure whether on land or in water.

Construction and Environmental Management Plan means the document titled Saltas Drum Filter Project Construction and Environmental Management Plan, Revision A, dated 22 December 2017.

Controlled Waste has the meaning described in Section 3(1) of EMPCA.

Director means the Director, Environment Protection Authority holding office under Section 18 of EMPCA and includes a person authorised in writing by the Director to exercise a power or function on the Director's behalf.

DRP means Decommissioning and Rehabilitation Plan.

Drum filter means the rotating screen located on The Land (as shown in Appendix 1) for separating sludge waste from the fish farm wastewater, and further defined as the wastewater treatment step that separates coarse organic solids from the wastewater, imediately prior to its discharge to the settlement pond.

Drum filter bypass means the discharge of untreated or partially treated effluent most commonly as a result of drum filter component failure or increased inflows to the drum filter system as a result of high rainfall.

Eagle breeding season means during the months, July, August, September, October, November, December, January and February (excludes the months, March, April, May and June).

Effluent means wastewater discharged from The Land.

EMPCA means the Environmental Management and Pollution Control Act 1994.

Environmental Harm and **Material Environmental Harm** and **Serious Environmental Harm** each have the meanings ascribed to them in Section 5 of EMPCA.

Environmental Nuisance and **Pollutant** each have the meanings ascribed to them in Section 3 of EMPCA.

Environmentally Hazardous Material means any substance or mixture of substances of a nature or held in quantities which present a reasonably foreseeable risk of causing serious or material environmental harm if released to the environment and includes fuels, oils, waste and chemicals but excludes sludge waste and sewage.

Median means the value at which the relevant parameter is exceeded by no more than 50 percent of all sample results over a 12 month period.

Person Responsible is any person who is or was responsible for the environmentally relevant activity to which this document relates and includes the officers, employees, contractors, joint venture partners and agents of that person, and includes a body corporate.

Reporting Period means the financial year.

Sludge waste solid organic waste that is derived from the fish farm activity and collected by the drum filter.

Stormwater means water traversing the surface of The Land as a result of rainfall.

Tasmanian Noise Measurement Procedures Manual means the document titled *Noise Measurement Procedures Manual*, by the Department of Environment, Parks, Heritage and the Arts, dated July 2008, and any amendment to or substitution of this document.

The Land means the land on which the activity to which this document relates may be carried out, and includes: buildings and other structures permanently fixed to the land, any part of the land covered with water, and any water covering the land. The Land falls within the area defined by:

- 1 Title Ref: 129645/1, 129645/3, 135850/1, Property ID: 1453976, 1867183; and
- **2** as further delineated at Attachment 1.

Wastewater means spent or used water (whether from industrial or domestic sources) containing a pollutant and includes stormwater which becomes mixed with wastewater.

Weed means a declared weed as defined in the Weed Management Act 1999.

Schedule 2: Conditions

<u>General</u>

G1 Regulatory limit

- 1 The activity must not exceed the following limit:
 - **1.1** Maximum of 160 tonnes standing biomass of fish.

G2 Access to and awareness of conditions and associated documents

A copy of these conditions and any associated documents referred to in these conditions must be held in a location that is known to and accessible to the person responsible for the activity. The person responsible for the activity must ensure that all persons who are responsible for undertaking work on The Land, including contractors and sub-contractors, are familiar with these conditions to the extent relevant to their work.

G3 No changes to an Environmental Licence activity without approval

- 1 The following changes, if they may cause or increase the emission of a pollutant which may cause material or serious environmental harm or environmental nuisance, must only take place in relation to the activity if such changes have been approved in writing by the EPA Board following its assessment of an application for a permit under the *Land Use Planning and Approvals Act 1993*, or an application for a new environmental licence or to vary an environmental licence; or approved in writing by the Director:
 - 1.1 a change to a process used in the course of carrying out the activity; or
 - **1.2** the construction, installation, alteration or removal of any structure or equipment used in the course of carrying out the activity; or
 - **1.3** a change in the quantity or characteristics of materials used in the course of carrying out the activity.

G4 Incident response

If an incident causing or threatening environmental nuisance, serious environmental harm or material environmental harm from pollution occurs in the course of the activity, then the person responsible for the activity must immediately take all reasonable and practicable action to minimise any adverse environmental effects from the incident.

G5 Notification of fish or ova mortality

The licensee(s) must immediately notify the Director of any significant fish or ova mortality event within the fish farm to which this licence relates.

G6 Change of responsibility

If the person responsible for the activity intends to cease to be responsible for the activity, that person must notify the Director in writing of the full particulars of any person succeeding him or her as the person responsible for the activity, before such cessation.

G7 Change of ownership

If the owner of The Land upon which the activity is carried out changes or is to change, then, as soon as reasonably practicable but no later than 30 days after becoming aware of the change or intended change in the ownership of The Land, the person responsible must notify the Director in writing of the change or intended change of ownership.

G8 Annual Environmental Review

- 1 Unless otherwise specified in writing by the Director, a publicly available Annual Environmental Review for the activity must be submitted to the Director each year within three months of the end of the reporting period. Without limitation, each Annual Environmental Review must include the following information:
 - **1.1** a statement by the General Manager, Chief Executive Officer or equivalent for the activity acknowledging the contents of the Annual Environmental Review;
 - **1.2** subject to the *Personal Information Protection Act 2004*, a list of all complaints received from the public during the reporting period concerning actual or potential environmental harm or environmental nuisance caused by the activity and a description of any actions taken as a result of those complaints;
 - **1.3** details of environment-related procedural or process changes that have been implemented during the reporting period;
 - **1.4** a summary of the amounts (tonnes or litres) of both solid and liquid wastes produced and treatment methods implemented during the reporting period. Initiatives or programs planned to avoid, minimise, re-use, or recycle such wastes over the next reporting period should be detailed;
 - **1.5** details of all non-trivial environmental incidents and/or incidents of non compliance with these conditions that occurred during the reporting period, and any mitigative or preventative actions that have resulted from such incidents;
 - **1.6** a summary of the monitoring data and record keeping required by these conditions. This information should be presented in graphical form where possible, including comparison with the results of at least the preceding reporting period. Special causes and system changes that have impacted on the parameters monitored must be noted. Explanation of significant deviations between actual results and any predictions made in previous reports must be provided;
 - **1.7** identification of breaches of limits specified in these conditions and significant variations from predicted results contained in any relevant DPEMP or EMP, an explanation of why each identified breach of specified limits or variation from predictions occurred and details of the actions taken in response to each identified breach of limits or variance from predictions;
 - **1.8** a list of any issues, not discussed elsewhere in the report, that must be addressed to improve compliance with these conditions, and the actions that are proposed to address any such issues;
 - **1.9** a summary of fulfilment of environmental commitments made for the reporting period. This summary must include indication of results of the actions implemented and explanation of any failures to achieve such commitments; and
 - **1.10** a summary of any community consultation and communication undertaken during the reporting period.

G9 Additional requirements for Annual Environmental Review

- 1 The person responsible must include a Drum Filter Bypass Report for the reporting period in the Annual Environmental Review. The Drum Filter Bypass Report must contain details of drum filter component design and operation including:
 - **1.1** the maximum wastewater inflow rate at which full treatment is maintained with no drum filter bypass occurring;
 - **1.2** the wastewater inflow rate at which each bypass at the drum filter comes into operation; and

1.3 a summary of the historical operation of each of the bypasses including dates, duration of bypass, reason for bypass, and the estimated or measured volumes spilled on each occasion.

G10 Complaints register

- 1 A public complaints register must be maintained. The public complaints register must, as a minimum, record the following detail in relation to each complaint received in which it is alleged that environmental harm (including an environmental nuisance) has been caused by the activity:
 - **1.1** the date and time at which the complaint was received;
 - **1.2** contact details for the complainant (where provided);
 - **1.3** the subject matter of the complaint;
 - **1.4** any investigations undertaken with regard to the complaint; and
 - **1.5** the manner in which the complaint was resolved, including any mitigation measures implemented.
- 2 Complaint records must be maintained for a period of at least 3 years.

G11 Sludge Waste Reuse Management Plan

- 1 Unless otherwise specified in writing by the Director, a Sludge Waste Reuse Management Plan for the activity must be submitted to the Director for approval within three (3) months of the date on which these conditions take effect. This requirement will be deemed to be satified only when the Director indicates in writing that the submitted document sufficiently addresses this condition.
- 2 The Sludge Reuse Management Plan must be prepared to be consistent with the *Tasmanian Biosolids Reuse Guidelines (DPIWE, August 1999)* or any other guidelines provided by the Director, and amended from time to time as approved in writing by the Director.

G12 Construction and Environmental Management Plan

- **1** Construction activities must be carried out in accordance with the approved Construction and Environmental Management Plan.
- 2 The approved plan, may be amended from time to time with the written approval of the Director.

G13 Discharge Management Plan

- 1 Unless otherwise approved in writing by the Director, a Discharge Management Plan must be prepared to the satisfaction of the Director and be submitted to the Director by 31 March 2020.
- 2 The Discharge Management Plan must include:
 - **2.1** an assessment of the available options for improved effluent management in accordance with the hierarchy set out in Division 2: 'Management of Point Sources of Pollution' of the SPWQM;
 - **2.2** a description of the volume and quality of effluent likely to be discharged to the receiving waters with consideration of effluent loads discharged to any approved reuse schemes;
 - **2.3** an assessment of the current impact of effluent discharges from the activity on the receiving environment. The assessment must incorporate and analyse the findings of the Ambient Monitoring Report and other monitoring data submitted to the Director in accordance with these conditions;

- **2.4** measures to ensure that the discharge of effluent to the receiving waters does not prejudice the achievement of the recommended water quality objectives at the discharge point including:
 - 2.4.1 recommended emission limits determined in accordance with the SPWQM;
 - **2.4.2** proposed effluent management measures including alternate discharge point options, seasonal discharge management and / or the establishment of a mixing zone, where necessary; and
 - **2.4.3** details of any upgrades of wastewater treatment infrastructure necessary to achieve the recommended emission limits and implement the discharge management measures.
- **2.5** a table containing all of the major commitments made in the plan;
- 2.6 an implementation timetable for key aspects of the plan; and
- **2.7** a reporting schedule to regularly advise the Director of progress with implementation of the plan.
- **3** The person responsible must implement and act in accordance with the approved Discharge Management Plan.
- 4 In the event that the Director, by notice in writing to the person responsible, either approves a minor variation to the approved Discharge Management Plan or approves a new Discharge Management Plan in substitution for the plan originally approved, the person responsible must implement and act in accordance with the varied plan or the new plan.

Atmospheric

A1 Odour management

- 1 The person responsible must institute such odour management measures as are necessary to prevent odours causing environmental nuisance beyond the boundary of The Land. Unless otherwise approved in writing by the Director, the measures must include those listed under section 3.5.1 of the Environmental Effects Report.
- 2 In the event that an odour complaint is received in relation to the activity:
 - 2.1 the complaint must be reported to the Director within 24 hours; and
 - **2.2** immediate action must be taken by the person responsible for the activity to identify the source of the odour and implement measures to remove the odour source or mitigate the odour nuisance.

Construction

CN1 Weed management

The Land must be kept substantially free of weeds to minimise the risk of weeds being spread through vehicle movements and transport of equipment to and from The Land.

CN2 Operating hours - Construction

- 1 Unless otherwise approved in writing by the Director:
 - **1.1** Construction activities must not be undertaken outside 0700 hours to 1900 hours Monday to Friday; and 0800 hours to 1700 hours Saturdays
 - **1.2** Notwithstanding the above paragraph, the construction activities must not be carried out on Sundays or Public Holidays that are observed State-wide (Easter Tuesday excepted).

CN3 Stormwater to be excluded

Stormwater must be prevented as far as practicable from entering the construction zone.

CN4 Retention of sediment

During construction activities all reasonable measures must be implemented to ensure that solids entrained in stormwater traversing the construction site are retained on The Land. Such measures may include provision of strategically located sediment fences, and appropriately sized and maintained sediment settling ponds.

Decommissioning And Rehabilitation

DC1 Notification of cessation

Within 30 days of becoming aware of any event or decision which is likely to give rise to the permanent cessation of the activity, the person responsible for the activity must notify the Director in writing of that event or decision. The notice must specify the date upon which the activity is expected to cease or has ceased.

DC2 DRP requirements

Unless otherwise approved in writing by the Director, a Decommissioning and Rehabilitation Plan (DRP) for the activity must be submitted for approval to the Director within 30 days of the Director being notified of the planned cessation of the activity or by a date specified in writing by the Director. The DRP must be prepared in accordance with any guidelines provided by the Director.

DC3 Rehabilitation following cessation

- 1 Following permanent cessation of the activity, and unless otherwise approved in writing by the Director, The Land must be rehabilitated including:
 - **1.1** stabilisation of any land surfaces that may be subject to erosion;
 - **1.2** removal or mitigation of all environmental hazards or land contamination, that might pose an on-going risk of causing environmental harm; and
 - **1.3** decommissioning of any equipment that has not been removed.
- 2 Where a Decommissioning and Rehabilitation Plan (DRP) has been approved by the Director, decommissioning and rehabilitation must be carried out in accordance with that plan, as may be amended from time to time with written approval of the Director.

Effluent

EF1 Effluent discharge from the fish farm

- 1 Effluent from the fish farm must only be discharged at the following discharge point:
 - **1.1** Discharge to the Derwent River from the existing outfall of the existing settlement pond.
 - **1.2** Effluent must not be discharged to the point referred to in clause 1.1 unless the effluent is compliant with the Interim Effluent Quality Limits for discharge to the Derwent River, set in these conditions.

EF2 Interim effluent quality limits for discharge to the Derwent River

- 1 Prior to commissioning of the drum screens, unless otherwise approved in writing by the Director, effluent discharged to the Derwent River must comply with the effluent quality limits set out in the Maximum Limit column of Table 1. Interim Effluent Quality Limits for discharge to the Derwent River.
- 2 After commissioning of the drum screens, unless otherwise approved in writing by the Director, effluent discharged to the Derwent River must comply with the effluent quality limits set out in the Table 1. Interim Effluent Quality Limits for discharge to the Derwent River.

- **3** The pH of the effluent discharged to water must be between 6.5 and 8.0.
- 4 For the purpose of this condition 'median' means the value at which the relevant parameter is exceeded by no more than 50 percent of all sample results over a 12 month period, '90th percentile' means the value at which the relevant parameter is exceeded by no more than 10 percent of all sample results over a twelve month period.

Parameter	Units	Median Limit	90th Percentile Limit	Maximum Limit
Biochemical Oxygen Demand	mg/L	-	-	5
Electrical conductivity	µS/cm	52.85	60.63	63
Total Suspended Solids	mg/L	2	3	3.9
Total Ammonia Nitrogen	mg/L	0.22	0.436	0.529
Nitrate and Nitrite	mg-N/L	0.120	0.238	0.31
Dissolved Reactive Phosphorus	mg-N/L	0.063	0.088	0.099
Total Nitrogen	mg/L	0.855	1.009	1.19
Total Phosphorus	mg/L	0.09	0.17	0.189

5 Table 1. Interim Effluent Quality Limits for discharge to the Derwent River.

Flora And Fauna

FF1 Pre-construction surveys

- 1 Unless otherwise approved in writing by the Director, if construction is deemed likely to continue into the eagle breeding season, a pre-construction survey by a suitably qualified / experienced person must be undertaken to identify whether any *Aquila audax subsp. fleayi* (Tasmanian wedge-tailed eagle) nest is located within 1 kilometre of the Land. The nest survey must be undertaken outside of the eagle breeding season.
- 2 Any eagle nest that is identified must be brought to the attention of the Director as soon as reasonably practicable.

FF2 Protection of native forest, riparian vegetation and biological communities

- 1 Unless otherwise approved in writing by the Director:
 - **1.1** There must be no disturbance of the native vegetation beyond the Operational Area shown at Attachment 2; and
 - **1.2** the activity must be conducted in a manner that does not cause degradation or disturbance (including sedimentation) of flora and fauna communities existing outside the Operational Area shown in Attachment 2.

Monitoring

- M1 Ambient monitoring of receiving waters for the Derwent River and the Wayatinah Lagoon
 - **1** Unless otherwise approved in writing by the Director, ambient monitoring must be undertaken and reported to the Director, as specified by these conditions.
 - 2 An Ambient Monitoring Plan for Receiving Waters, including the Derwent River downstream of the finfish farming activity and the Wayatinah Lagoon in the vicinity of the inflow of the Derwent River must be submitted by the person responsible to the Director for approval by 30 June 2019.
 - 3 The ambient monitoring plan for receiving waters must:
 - **3.1** be informed by the Australian Guidelines for Water Quality Monitoring and Reporting;
 - **3.2** outline the program scope, methods, locations, parameters, frequency and duration of the proposed monitoring program, including the rationale for design features of the program such as any modelling undertaken, that are additional to the monitoring requirements prescribed in these conditions;
 - **3.3** be designed to characterise the ambient water quality and biological conditions and to assess the impact of effluent discharged from the activity through the annual production cycle, and taking into account seasonal effects and other variation in the receiving environment;
 - **3.4** be designed to take into account the Protected Environmental Values and identify sensitive receptors within the receiving environment; and
 - **3.5** incorporate an effluent plume dilution study which identifies the behaviour and dimensions of the mixing zone at the authorised discharge point;
 - **3.6** be designed to identify the location and extent of the mixing zone, taking into account seasonal effects and other variation in the receiving environment;
 - 3.7 include an implementation timetable for the plan.
 - 4 Unless otherwise approved in writing by the Director, the approved ambient monitoring plan for receiving waters must be implemented within 1 month of the plan being approved in writing by the Director.
 - 5 Within 3 months of the completion of ambient monitoring as stipulated in the approved Ambient Monitoring Plan for Receiving Waters, an Ambient Monitoring Report must be submitted to the Director which must include the following information:
 - **5.1** a description of the quality of the receiving waters environment, both in areas impacted by the discharge and in areas that are not impacted by the discharge, including graphical presentation of monitoring results collected in accordance with these conditions and an analysis of seasonal effects and other variation;
 - **5.2** observations regarding the dilution and dispersion of effluent into the receiving waters in comparison to predictions or findings of previous studies, where these may be available;
 - **5.3** an assessment of the dilution and dispersion patterns achieved in the receiving waters and recommendations regarding the location and extent of the mixing zone;
 - **5.4** an evaluation of the environmental impacts with consideration of Protected Environmental Values and relevant sensitive receptors, based on the monitoring results, the annual production cycle of the finfish farming activity and knowledge of seasonal effects and other variation.

M2 Dealing with samples obtained for monitoring

- **1** Any sample or measurement required to be obtained under these conditions must be taken and processed in accordance with the following:
 - **1.1** Australian Standards, the National Association of Testing Authorities (NATA) accredited methods, the American Public Health Association Standard Methods for the Analysis of Water and Waste Water or other standard(s) approved in writing by the Director;
 - **1.2** samples must be tested in a laboratory accredited by NATA, or a laboratory approved in writing by the Director, for the specified test;
 - **1.3** results of measurements and analysis of samples and details of methods employed in taking measurements and samples must be retained for at least three (3) years after the date of collection;
 - **1.4** measurement equipment must be maintained and operated in accordance with manufacturer's specifications and records of maintenance must be retained for at least three (3) years; and
 - **1.5** noise measurements must be undertaken in accordance with the Tasmanian Noise Measurement Procedures Manual.

M3 Water quality monitoring requirements relating to the fish farm activity and the Derwent River

- 1 Monitoring must be undertaken in accordance with Table 3 at the locations described in Table 4, unless otherwise approved in writing by the Director.
- 2 The Water Quality monitoring must be conducted fortnightly until the drum screens are commissioned, and fortnightly for the period from October 2019 to June 2020, then monthly ongoing, unless otherwise approved in writing by the Director.

3 Table 3. Water Quality and Flow Monitoring.

Parameter	Units	Frequency	Sampling location	Method
Flow	ML/d	Daily	1	Field measurement
Dissolved Oxygen	mg/L and % saturation	Fortnightly, then monthly	1, 2, 3, 4, 5	Field measurement
рН	-	Fortnightly, then monthly	1, 2, 3, 4, 5	Field measurement
Electrical Conductivity	uS/cm	Fortnightly, then monthly	1, 2, 3, 4, 5	Field measurement
Temperature	oC	Fortnightly, then monthly	1, 2, 3, 4, 5	Field measurement
Biochemical Oxygen Demand	mg/L	Fortnightly, then monthly	3	1 grab sample
Disolved Organic Carbon	mg/L	Fortnightly, then monthly	1, 2, 3, 4, 5	1 grab sample
Total Organic Carbon	mg/L	Fortnightly, then monthly	1, 2, 3, 4, 5	1 grab sample
Total Ammonia Nitrogen	mg/L	Fortnightly, then monthly	1, 2, 3, 4, 5	1 grab sample
Nitrate - Nitrogen	mg/L	Fortnightly, then monthly	3	1 grab sample
Nitrite - Nitrogen	mg/L	Fortnightly, then monthly	3	1 grab sample
Nitrate + Nitrite	mg/L	Fortnightly, then monthly	1, 2, 4, 5	1 grab sample
Total Kjeldahl Nitrogen	mg/L	Fortnightly, then monthly	1, 2, 3, 4, 5	1 grab sample
Total Nitrogen	mg/L	Fortnightly, then monthly	1, 2, 3, 4, 5	1 grab sample
Dissolved Reactive Phosphorus	mg/L	Fortnightly, then monthly	1, 2, 3, 4, 5	1 grab sample
Total Phosphorus	mg/L	Fortnightly, then monthly	1, 2, 3, 4, 5	1 grab sample
Total Suspended Solids	mg/L	Fortnightly, then monthly	1, 2, 3, 4, 5	1 grab sample
Chemical residues	mg/L	Fortnightly, then monthly	3	1 grab sample

*Chemical residues are those identified as potentially arising from the activity, in accordance with Condition M7.

Sampling
Location
ReferenceDescription of sampling location1Derwent River at the weir upstream of the hatchery2The inlet into the hatchery, representing the Derwent River and/or Wayatinah
Lagoon water3The outfall into the Derwent River4Derwent River approximately 60 metres downstream of the effluent outfall5Derwent River approximately 200 metres downstream of the effluent outfall

4 Table 4. Sampling Location Descriptions for Water Quality and Flow Monitoring.

M4 Biological Monitoring of the Derwent River

- 1 Unless otherwise approved in writing by the Director, biological monitoring must be conducted on an approximately six monthly basis at Sites 4 and 5 as described in Table 4.
- **2** Biological sampling must be timed to represent an autumn sample and a late spring sample each year and must be undertaken by a suitably qualified and experienced person.
- 3 Measurements and sample collection for all locations must be made as close to the same time as possible. General water quality samples and measurements, as required by these conditions, must also be collected at the time of the biological monitoring.
- 4 The date and time of all measurements and sample collection must be recorded.
- 5 Field measurements and sampling must be conducted for the parameters specified in Column 1 of the Table of Biological Monitoring Parameters below, for the measure specified in Column 2 and using the method specified in Column 3.

Parameter	Measure	Method
Macroinvertebrates	Taxon abundance per m ² of substrate	Tasmanian River Condition Index (TRCI)
Macroinvertebrates	AUSRIVAS Band O/E Score O/E Signal Score	AUSRIVAS combined season riffle assessment (TRCI)
Macroinvertebrates	Macroinvertebrate composition EPT Diversity Taxon Diversity Signal Index	Calculated from AUSRIVAS data
Macroinvertebrates	Rank abundance model outputs	Tasmanian rank abundance model assessment
Stream shading	% stream shading by riparian vegetation	TRCI
Algal cover	% stream bed cover	TRCI
Algal biomass	Chlorophyll a (mg/m ²)	TRCI

6 Table of Biological Monitoring Parameters

M5 Drum screen performance monitoring

1 Unless otherwise approved in writing by the Director, the monitoring specified in Table 2 must be conducted following commissioning of the drum filters, from October 2019 until June 2020, or for another nine month period that captures the annual production increase and peak production, with the written approval of the Director.

2 Table 2. Drum screen performance monitoring.

Parameter	Units	Frequency	Sampling Location	Sampling Method
Dissolved Oxygen	mg/L and % saturation	Fortnightly	Drum screen inlet Drum screen outlet	Field measurement
рН	-	Fortnightly	Drum screen inlet Drum screen outlet	Field measurement
Electrical Conductivity	μS/cm	Fortnightly	Drum screen inlet Drum screen outlet	Field measurement
Temperature	°C	Fortnightly	Drum screen inlet Drum screen outlet	Field measurement
Flow	L/s	Fortnightly	Drum screen outlet	Field measurement
Biochemical Oxygen Demand	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Dissolved Organic Carbon	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Total Organic Carbon	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Total Ammonia Nitrogen	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Nitrate- Nitrogen	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Nitrite-Nitrogen	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Total Kjeldahl Nitrogen	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Total Nitrogen	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Dissolved Reactive Phosphorus	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Total Phosphorus	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Total Suspended Solids	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample

CHAIRPERSON, BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY $172\,$

M6 Geographic references for sampling locations

- 1 Within 4 weeks of these conditions coming into effect, accurate geographic references, such as GPS co-ordinates or grid references, for the sampling locations referred to in the monitoring conditions of this licence, must be submitted to the Director.
- 2 The geographic references must be submitted as a table of co-ordinates and presented on an accurately scaled map that is marked with clear labels for each sampling location.

M7 Identification of chemical additives and residues

- 1 Within 4 weeks of these conditions coming into effect, a list of all chemical additives that may come into contact with surface waters during the course of the activity and all chemical residues potentially arising from those chemical additives, must be identified, documented and submitted to the Director.
- 2 If the person responsible for the activity intends to modify the list of chemical additives and residues, the licensee(s) must notify the Director in writing of the full particulars of any change(s) to the list, as soon as reasonably practicable and before the changes are made to the activity.
- **3** This requirement will be deemed to be satisfied only when the Director indicates in writing that the submitted document sufficiently identifies chemical additives and chemical residues potentially arising from the activity.

Operations

OP1 Therapeutant and chemical use

- 1 Unless otherwise specified in writing by the Director, residues of therapeutic chemicals and cleaning chemicals in wastes that are applied to land must not be in concentrations that would cause them to be pollutants or cause them to persist in the environment.
- 2 Records of all therapeutic chemical (including antibiotics, hormones, anti-fungal and anti-parasite medication) and chemical use in carrying out this activity must be kept for a minimum period of three years. Records must include date of use, reason for use, dosage (as applicable), total volume and method of disposal.

OP2 Storage and handling of hazardous materials

- 1 Unless otherwise approved in writing by the Director, environmentally hazardous materials held on The Land must be:
 - **1.1** stored within impervious bunded areas, spill trays or other containment systems; and
 - **1.2** managed to prevent unauthorised discharge, emission or deposition of pollutants:
 - **1.2.1** to soils within the boundary of The Land in a manner that is likely to cause serious or material environmental harm;
 - **1.2.2** to groundwater;
 - **1.2.3** to waterways; or
 - **1.2.4** beyond the boundary of The Land.

OP3 Bypass event recording for effluent treatment system

- **1** Within 4 weeks of these conditions coming into effect, the person responsible must establish a recording system for logging bypass events, where:
 - **1.1** the effluent treatment system is bypassed during construction of the drum screens; or
 - **1.2** the drum screens are bypassed after their commissioning.

- 2 The following information must be recorded for each bypass event:
 - **2.1** start and finish date;
 - **2.2** start and finish time;
 - **2.3** reason for the bypass.

Reporting

RP1 Submission of sampling results

All sampling results and collated data from measurements, observations at the fish farm (in RAS and flow-through systems) and surrounding environment, must be forwarded to the Director within 10 days of receipt of the monthly analytical results. Sampling results must be presented in a format approved by the Director. Results of analyses conducted by a laboratory must be submitted on the original laboratory certificates.

Waste Management

WM1 Management and disposal of sludge waste

- 1 Sludge waste separated by the drum filter must be dewatered and kept in leak-proof durable containers, which must be kept closed when putrescible material is being held in them, to the extent practical and reasonable.
- 2 Sludge waste must be substantially removed from the settlement pond annually, and enclosed in leak-proof durable containers for the purpose of transport and disposal.
- **3** The sludge waste must be disposed to facility which has all necessary approvals to conduct these activities.

WM2 Management of Wastes Containing Restricted Animal Material

All wastes containing fish tissues or fish meal, including fish farm sludge waste, must be treated as Restricted Animal Material (RAM). Ruminant stock must be prevented from accessing RAM. Where sludge waste is land-spread a minimum withholding period for ruminant stock of 21 days or until the sludge waste is no longer visible, must be observed.

Schedule 3: Information

Legal Obligations

LO1 Controlled waste transport

Transport of controlled wastes to and from The Land must be undertaken only by persons authorised to do so under EMPCA or subordinate legislation.

LO2 EMPCA

The activity must be conducted in accordance with the requirements of the *Environmental Management and Pollution Control Act 1994* and Regulations thereunder. The conditions of this document must not be construed as an exemption from any of those requirements.

LO3 Storage and handling of dangerous goods, explosives and dangerous substances

- **1** The storage, handling and transport of dangerous goods, explosives and dangerous substances must comply with the requirements of relevant State Acts and any regulations thereunder, including:
 - 1.1 *Work Health and Safety Act 2012* and subordinate regulations;
 - **1.2** *Explosives Act 2012* and subordinate regulations; and
 - **1.3** Dangerous Goods (Road and Rail Transport) Act 2010 and subordinate regulations.

Other Information

OI1 Notification of incidents under section 32 of EMPCA

Where a person is required by section 32 of EMPCA to notify the Director of the release of a pollutant, the Director can be notified by telephoning **1800 005 171** (a 24-hour emergency telephone number).

OI2 Waste management hierarchy

- Wastes should be managed in accordance with the following hierarchy of waste management:
 - **1.1** waste should be minimised, that is, the generation of waste must be reduced to the maximum extent that is reasonable and practicable, having regard to best practice environmental management;
 - **1.2** waste should be re-used or recycled to the maximum extent that is practicable; and
 - **1.3** waste that cannot be re-used or recycled must be disposed of at a waste depot site or treatment facility that has been approved in writing by the relevant planning authority or the Director to receive such waste, or otherwise in a manner approved in writing by the Director.

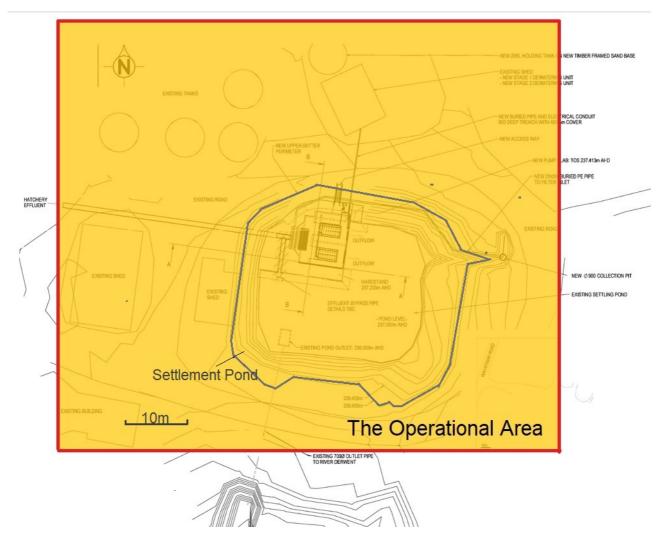
OI3 Use of therapeutants and other chemicals

Therapeutic chemicals and cleaning chemicals must be used consistent with the registration requirements for each chemical under the Australian Pesticides and Veterinary Medicines Authority (APVMA), and all chemicals must be managed consistent with relevant advice provided in the applicable safety data sheet (SDS).

Attachment 1: The Land



Attachment 2: The Operational Area



AllUrbanPlanning

5 January 2018

Lyn Eyles General Manager Central Highlands Council 6 Tarleton Street, Hamilton TAS 7140 PO Box 20, Hamilton TAS 7140

Dear Madam

SALTAS Hatchery Florentine – New Development Application for installation of Drum Filter

Please see attached an application for a planning permit for installation of a drum filter to improve the environmental performance of Saltas' existing hatchery at 675 Florentine Road, Wayatinah. The site (PID 3386594) is owned by Forestry Tasmania.

Proposal

The proposal is described on the attached plans and Construction and Environmental Management Plan prepared by Saltas.

The drum filter is a concrete chamber approximately 1.5m deep x 7m x 8m to be located within the existing pond. There is also to be an adjacent dewatering system to the west constructed under a simple 10m x 4.5m "carport" style roof as well as a 20,000l holding tank.

A new DN700m pipe and headwall is to be routed downstream from the eastern end of the existing pond.

The purpose of the upgrades is to improve the environmental performance of the effluent outfall of the salmon hatchery.

The drum filter is designed to achieve filtration of 80 microns, removing solid particles and organics from the effluent stream before they enter the environment.

Planning Scheme

The site is zoned Rural Resource under the Central Highlands Interim Planning Scheme 2015. The proposed upgrades to the existing aquaculture facility fall within the Resource Development Use class which is a Permitted Use in the zone.

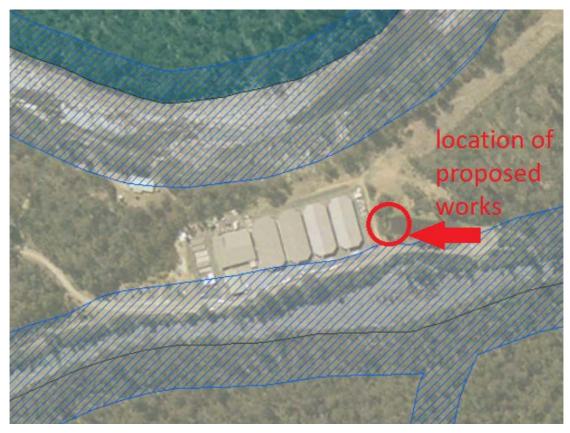


Figure 1 – Site Plan showing planning scheme zoning and overlays (Source: annotated from theList).

Use Standards (26.3)

There are no applicable Use Standards.

Development Standards (26.4)

Building Height (26.4.1)

• The drum filter chamber is to be installed primarily in ground and comfortably complies with the permitted height of 10m under A1.

Setback (26.4.2)

- The proposal comfortably complies with the 20m permitted frontage setback under A1 with a setback of approximately 800m.
- Buildings are to be setback approximately 80m from the closest boundary of the site to the south with the Florentine River and comply with the 50m minimum requirement under A2.
- A3 N/A

• The proposed buildings and works are to be setback approximately 150m from the Environmental Management Zone to the north and comply with the minimum requirement of 100m under A4.

Design (26.4.3)

- The proposal is located within the existing hatchery site and will not require the clearing of native vegetation and is not on a skyline or ridgeline. The proposal complies with A1(c).
- The proposed concrete construction will comply with the requirement of A2 for exterior surfaces with a light reflectance value not greater than 40%. This requirement would logically be included as a condition on the planning permit.
- The proposal will not require fill or excavation, other than for foundations, greater than 2m and complies with A3.

Planning Scheme Codes

The footprint of the proposed works is generally outside all overlay areas on the planning scheme maps (see Figure 1 above). The proposed new outfall pipe and headwall however will traverse a section of Waterway and Coastal Protection Area between the hatchery and river frontage. The Waterway and Coastal Protection Code therefore applies unless exempt under E11.4 of the Code.

The proposed outfall works could potentially be exempt under E11.4(j) as works considered necessary by an agency or council for the protection of a water supply, watercourse, lake, wetland or tidal waters or coastal values as part of a management plan.

After consideration I proceed on the basis that the works are desirable to improve water quality rather than necessary as instructed by Council or an agency and that the Code therefore applies.

Waterway and Coastal Protection Code

Subject to the proposed mitigation measures and protocols set out in the accompanying Construction and Environmental Management Plan I consider that the proposed works within the waterway protection area will satisfy P1 of E11.7.1. The requirements of this Code therefore are met.

Other Codes

There are no other planning scheme codes of particular relevance to the proposal. However, to the extent that they apply the proposal is considered to satisfy all requirements.

Conclusion

The proposed drum filter upgrade will improve the performance of the existing aquaculture activity which is a permitted, Resource Development Use on the site.

Subject to adhesion to the procedures set out in the accompanying Construction and Environmental Management Plan the proposal will have minimal impact on the rural landscape and environmental values of the surrounding area.

The proposal is considered to satisfy all relevant planning scheme standards.

I trust Council has sufficient information to determine this application however please contact the undersigned as necessary for further information or clarification.

Yours sincerely

Frazer Read **Principal** All Urban Planning Pty Ltd



Development & Environmental Services 19 Alexander Street BOTHWELL TAS 7030

Phone: (03) 6259 5503 Fax: (03) 6259 5722

www.centralhighlands.tas.gov.au

n	F	FI	CF	USE	ONLY
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Application No.:

Property ID No.:

Date Received:

Application for Planning Approval Use and Development

Use this form to apply for planning approval in accordance with section 57 and 58 of the Land Use Planning and Approvals Act 1993

Applicant / Ov	wner Deta	ils:				- <u>, -</u>		
Applicant Name	All Urban Planning Pty Ltd obo Saltas Pty Ltd							
Postal Address	19 Mawhera Avenue			Phone No:	040010958	2		
	Sandy B	ау		7005	Fax No:		· ·	
Email address	frazer@a	llurbanplan	ning.com.au					
Owner/s Name (if not Applicant)	Forestry	ſasmania					·	
Postal Address	GPO Box	< 207			Phone No:	61692800	61692800	
	HOBART	•		7001	Fax No:	····		
Email address:	sarah.va	utin@sttas.	com.au					
Description of Address of new use and development:		use and/	· .	1ent:				
Certificate of Title No:	Volume No	No known ti	itle PID 3386594	Lot No:				
Description of proposed use or development:	proposed d	rum filter upgr	ades to existing h	atchery		//Shed/1	welling /Additions/ Demolition Farm Building / Carport / Pool or detail other etc.	
Current use of land and buildings:	aquaculture	hatchery				on this	hat is the main building	
Proposed Material	What are th external wa		concrete		What is the propose	d roof cotour	N/A	
	What is the new floor ar		N/A		What is the estimate all the new work pro		\$ 200,000	

Is proposed development to be staged:	Yes 🗖	No 🖪	Tick 🖌
Is the proposed development located on land previously used as a tip site?	Yes 🗖	No 🔣	
Is the place on the Tasmanian Heritage Register?	Yes 🗖	No 🖪	
Have you sought advice from Heritage Tasmania?	Yes 🗖	No 🗔	
Has a Certificate of Exemption been sought for these works?	Yes 🗖	No 🗔	
has a certificate of Exemption been sought for these works?	103		

Signed Declaration

I/we hereby apply for a planning approval to carry out the use or development described in this application and in the accompanying plans and documents, accordingly I declare that:

- 1. The information given is a true and accurate representation of the proposed development. I understand that the information and materials provided with this development application may be made available to the public. I understand that the Council may make such copies of the information and materials as, in its opinion, are necessary to facilitate a thorough consideration of the Development Application. I have obtained the relevant permission of the copyright owner for the communication and reproduction of the plans accompanying the development application, for the purposes of assessment of that application. I indemnify the Central Highlands Council for any claim or action taken against it in respect of breach of copyright in respect of any of the information or material provided.
- 2. In relation to this application, I/we agree to allow Council employees or consultants to enter the site in order to assess the application.
- 3. I am the applicant for the planning permit and <u>I have notified the owner/s of the land in writing</u> of the intention to make this application in accordance with Section 52(1) of the Land Use Planning Approvals Act 1993 (or the land owner has signed this form in the box below in "Land Owner(s) signature); Applies where the applicant is not the Owner and the land is not Crown land or owned by a council, and is not land administered by the Crown or a council.

(if not the Owner)	Applicant Name_(<i>Please print</i>) Frazer Read obo All Urban Planning Pty Ltd	Date 5 January 2018
	Land Owners Name (please print) G. B. HICKLY GM KREST PRODUCIS,	Date 18/0///8
Land Owner(s) Signature	Land Owners Name (please print)	Date /

Information & Checklist sheet

				- ✓
1.	Plea	se ens	ed Application for Planning Approval – Use and Development form. ure that the information provides an accurate description of the proposal, has the correct d contact details and is signed and dated by the applicant.	
2.			opy of the Certificate of Title for all lots involved in the proposal.	
	and	any so	tails must include, where available, a copy of the search page, title plan, sealed plan or diagram hedule of easements (if any), or other restrictions, including covenants, Council notification or of transfer.	
<u> </u>				
3.	a)		bies of the following information - halysis of the site and surrounding area setting out accurate descriptions of the following - topography and major site features including an indication of the type and extent of native vegetation present, natural drainage lines, water courses and wetlands, trees greater than 5 metres in height in areas of skyline or landscape importance and identification of any natural hazards including flood prone areas, high fire risk areas and land subject to instability; soil conditions (depth, description of type, land capability etc); the location and capacity of any existing services or easements on the site or connected to the	
	b)	(iv) (v) (vi) (vii) A site	site; existing pedestrian and vehicle access to the site; any existing buildings on the site; adjoining properties and their uses; and soil and water management plans. e plan for the proposed use or development drawn, unless otherwise approved, at a scale of not than 1:200 or 1:1000 for sites in excess of 1 hectare, showing -	
		(i) (ii) (iii) (iv) (v) (vi)	a north point; the boundaries and dimensions of the site; Australian Height Datum (AHD) levels; natural drainage lines, watercourses and wetlands; soil depth and type; the location and capacity of any existing services or easements on the site or connected to the site;	
		(vii) (viii) (ix)	the location of any existing buildings on the site, indicating those to be retained or demolished, and their relationship to buildings on adjacent sites, streets and access ways; the use of adjoining properties; shadow diagrams of the proposed buildings where development has the potential to cause	
		(x)	overshadowing; the dimensions, layout and surfacing materials of all access roads, turning areas, parking areas	
		(xi) (xii)	and footpaths within and at the site entrance; any proposed private or public open space or communal space or facilities; proposed landscaping, indicating vegetation to be removed or retained and species and mature heights of plantings; and	
		(xiii)	methods of minimizing erosion and run-off during and after construction and preventing contamination of storm water discharged from the site.	
	c)	show	and elevations of proposed and existing buildings, drawn at a scale of not less than 1:100, ving internal layout and materials to be used on external walls and roofs and the relationship of vievations to natural ground level, including any proposed cut or fill.	
	the / com emis	Act, Sta mercia ssions,	submission supporting the application that demonstrates compliance with the relevant parts of ate Polices and the Central Highlands Interim Planning Scheme 2015, including for industrial and al uses, the hours of operation, number of employees, details of any point source discharges or traffic volumes generated by the use and a Traffic Impact Statement where the development is eate more than 100 vehicle movements per day.	
5.	Pres	cribed	fees payable to Council. An invoice for the fees payable will be issued once application has	t
		n receiv		1

. . _...

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Information

If you provide an email address in this form then the Central Highlands Council ("the Council") will treat the provision of the email address as consent to the Council, pursuant to Section 6 of the Electronic Transactions Act 2000, to using that email address for the purposes of assessing the Application under the Land Use Planning and Approvals Act 1993 ("the Act").

If you provide an email address, the Council will not provide hard copy documentation unless specifically requested.

It is your responsibility to provide the Council with the correct email address and to check your email for communications from the Council.

If you do not wish for the Council to use your email address as the method of contact and for the giving of information, please tick \checkmark the box

Heritage Tasmania

If the Property is listed on the Tasmanian Heritage Register then the Application will be referred to Heritage Tasmania unless an Exemption Certificate has been provided with this Application. (Phone 1300 850 332 or email enquires@heritage.tas.gov.au)

TasWater

Depending on the works proposed Council may be required to refer the Application to TasWater for assessment (Phone 136992)



Saltas Drum Filter Project Construction and Environmental Management Plan Revision A 22/12/2017

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Appendix List

Appendix A – Wayatinah Drum Filter General Arrangement Drawings
Appendix B – Florentine Drum Filter General Arrangement Drawings
Appendix C – Saltas Environmental Policy

Document Control

Version	Date	Recipients	Method
Rev A	22/12/2017	Central Highlands Council	Included in DA Submission

Prepared By: Ben Wagner Project Manager - Engineering Tassal Operations Pty Ltd On behalf of Salmon Enterprises of Tasmania Pty Limited



Introduction

Salmon Enterprises of Tasmania Pty Limited (Saltas) is an industry owned salmon hatchery operation which produces salmon eggs, fry and smolt. The operation consists of two semi flowthrough hatchery facilities situated nominally 7km apart near the township of Wayatinah.

Saltas is installing drum filters on the effluent outfall of each hatchery. The works shall be undertaken as part of the Saltas Drum Filter Project.

Installation of the drum filters shall be undertaken as part of Saltas commitment to the Aquaculture Stewardship Council (ASC) in maintaining certification against the Salmon Standard. ASC certification and implementation of the drum filers are indicators of Saltas ongoing commitment to improve environmental performance across its operations.



Site Plan

Saltas consists of two separate hatchery facilities situated near Wayatinah. Hatchery details and drum filter project locations are offered as follows:



Image 1 – Saltas Locality plan



 SALMON ENTERPRISES OF TASMANIA PTY LIMITED
 ABN 25 009 550 145

 Administration: 289 Wayatinah Road, Wayatinah TAS 7140 Australia

 PO Box 1 Wayatinah TAS 7140 Australia Telephone: (03) 6289 3280 Fax: (03) 6289 3290

	Phone	Postal Address	Physical Address
Wayatinah Hatchery (WH)	(+61 3) 6289 3280	PO Box 1 Wayatinah TAS 7140 Australia	289 Wayatinah Road Wayatinah 7140



Image 2 – Wayatinah Hatchery

SALTAS

	Phone	Postal Address	Physical Address
Florentine	(+61 3) 6289 3280	PO Box 1	675 Florentine Road
Hatchery (FH)		Wayatinah TAS 7140	Wayatinah 7140
		Australia	



Image 3 – Florentine Hatchery



Construction zones for each site are adjacent to the settling ponds on the outflow of the hatcheries.

For Wayatinah Hatchery drum filter general arrangement refer Appendix A.

For Florentine Hatchery drum filter general arrangement refer Appendix B.

Saltas Environmental Policy

Saltas is committed to ongoing improvement of environmental performance and operational practices. Refer Appendix C for Saltas Environmental Policy.

Intended outcomes from the C.E.M.P.

The intended outcomes from this CEMP are to:

- Meet government and community expectations for protection of the environment;
- Identify potential environmental impacts from the project's activities;
- Develop and implement control mechanisms to alleviate any impacts;
- Educate and communicate with all personnel on site as to their environmental responsibilities during the construction of the project;
- Minimise the inconvenience incurred by the local community during the project's implementation; and
- Ensure the construction site is made good and handed over to operating personnel in good condition.

Project Description

To meet the requirement of environmental assessment against the ASC Salmon Standard, Saltas is installing drum filters on the effluent outfall of its two salmon hatcheries. The drum filters shall achieve filtration of 80 microns, removing solid particles and organics from the effluent stream before they enter the environment.

The effluent outfall, prior to the settling pond, has been selected as the most suitable location for the drum filters due to the hydraulic arrangement of the hatchery infrastructure. At this location, all effluent streams from the hatchery meet to create a single flow to the settling pond. Capturing the solids in the effluent flow prior to settling ensures the solid particles remain bound and in good condition for micron filtration.

The proposal has been assessed against the Central Highlands Interim Planning Scheme as being a permitted use. A discretionary Development Application (DA) is required due to the offsets from the natural water coarse and the property boundary.

Saltas recognises that quality control of effluent is a key issue for the ongoing management of receiving environment. This project allows Saltas to achieve a level of filtration that is equivalent with worlds best practice for flowthrough hatcheries of this nature.



Environmental Description of Site and Project

Wayatinah

Situated on the River Derwent, Wayatinah Hatchery is built on private land owned by Saltas.

Water is directed through the hatchery from the upstream inlet weir which feeds 47 fish tanks and two Recirculation Aquaculture Systems (RAS). Flowthrough water leaving the fish tanks is channelled to a common pipe before entering the settling pond. From the settling pond water is returned to the natural water course.

The works zone shall be directly adjacent to, in and around the existing settling pond. For a percentage of the works, the settling pond shall be diverted to allow construction to be carried out within the pond. During the period of the diversion 100% of the hatchery through flow shall be diverted to the river, for an estimated 6 week period, or as defined by the Contractor's approved construction schedule.

The construction works zone shall be restricted to the existing used areas adjacent to the settling ponds. Traffic movement shall be restricted to the existing traffic paths. No construction works shall be undertaken in natural undisturbed areas.

Some excavation shall be undertaken to establish footings for the new concrete chambers. All excavation spoil shall be kept on site. Excavation material shall be used where possible as compacted backfill. Any remaining excavation material shall be stored in existing stockpile locations on site.

Sedimentation shall be minimised during the works. Silt fences, silt traps and hay bales shall be used to prevent sediment entering the environment. The majority of the works shall be carried out in the settling pond. Sediment occurring in the settling pond shall remain in the settling pond due the flowthrough water diversion.

The construction zone shall be monitored and assessed during the construction period. Listed below are the environmental criteria that will be monitored and managed against during the project:

- Erosion and sediment control
- Dust
- Noise
- Waste disposal
- Flora and fauna
- Fire Management
- Hazardous chemicals
- Cultural heritage

Florentine

Florentine Hatchery is on a Forestry Tasmania lease, situated on a strip of land straddled by the River Derwent to the north and the Florentine Rover to the south.

Water is directed through the hatchery from the upstream inlet weir which feeds 32 fish tanks and one Recirculation Aquaculture Systems (RAS). Flowthrough water leaving the fish



tanks is channelled to a common pipe before entering the settling pond. From the settling pond water is returned to the natural water course.

The works zone shall be directly adjacent to, in and around the existing settling pond. A section of the settling pond shall be dammed during the construction period (sandbag or other) to create a dry construction zone. The drum chamber works shall be contained within the dry construction area.

The construction works zone shall be restricted to the existing used areas adjacent to the settling ponds. Traffic movement shall be restricted to the existing traffic paths. No construction works shall be undertaken in natural undisturbed areas.

Excavation shall be undertaken to establish footings for the new concrete chambers. All excavation spoil shall be kept on site. Excavation material shall be used where possible as compacted backfill. Any remaining excavation material shall be stored in existing stockpile locations on site.

Sedimentation shall be minimised during the works. Silt fences, silt traps and hay bales shall be used to prevent sediment entering the environment. The majority of the works shall be carried out in the dry construction area adjacent to the settling pond. Sediment occurring in the dry construction area shall remain in the dry construction area due the sandbag (or other) dam wall.

The construction zone shall be monitored and assessed during the construction period. Listed below are the environmental criteria that will be monitored and managed against during the project:

- Erosion and sediment control
- Dust
- Noise
- Waste disposal
- Flora and fauna
- Fire Management
- Hazardous chemicals
- Cultural heritage

Roles and Responsibilities

All key personnel involved in the Project shall ensure that all the environmental objectives for the Project are implemented. The responsibilities are summarised below:

Project Resources and Responsibilities		
Project Manager Approve the CEMP and subsequent revisions		
	Ensure works proceed in accordance with all environmental approvals & permits	
	Ensure all non-compliance events are investigated and corrected	



Ensure all design plans produced for the project are mindful of CEMP requirements, in particular permanent measures for erosion and sediment control Action an appropriate response in accordance with company procedure in the event of an environmental incident Review and acknowledge periodic environmental inspection reports Site Manager Monitor and report all environmental incidents to the Project Manager Ensure all site personnel & subcontractors are aware of their responsibilities Ensure all staff and subcontractors comply with the CEMP Manage installation of appropriate environmental controls Stop work or otherwise mitigate the effect of an activity that is causing significant uncontrolled or unexpected environmental harm Ensure all project personnel receive environmental inductions and training Saltas and Contractor Employees Action an environmental responsible manner Report incidents to relevant supervisors as soon as practicable Saltas and Contractor Employees Adhere to the directives of this CEMP and the company's management system <		
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reports Site Manager Monitor and report all environmental incidents to the Project Manager Ensure all site personnel & subcontractors are aware of their responsibilities Ensure personnel assigned to perform environmental tasks are competent to do so or are under the direct supervision of a competent person Ensure all staff and subcontractors comply with the CEMP Manage installation of appropriate environmental controls Stop work or otherwise mitigate the effect of an activity that is causing significant uncontrolled or unexpected environmental harm Ensure all project personnel receive environmental inductions and training Saltas and Contractor Adhere to the directives of this CEMP and the company's management system Act in an environmental responsible manner Report incidents to relevant supervisors as soon as practicable Satisfactorily perform all environmental works as specified by contractual arrangements or recognised authority Participate in subsequent investigations and implementation or preventative action(s) as required Attend all required environmental awareness induction and training sessions Recognise the authority of the site manager, particularly in the event of an actual or perceived environmental non-compliance, or		
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event of an actual or perceived environmental non-compliance, or		•
		event of an actual or perceived environmental non-compliance, or



Standards and Codes

Listed below are legislative and other requirements which may be applicable to the project. The Project Manager shall ensure all necessary approvals, permits and licences have been obtained for the project and all contractors are aware of their obligations.

Legislative or other requirements		
Environment	Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act) (Commonwealth)	
Air Quality	State Policy on Air Quality	
	Nation Environmental Protection (Air Toxics) Measure Commonwealth	
	National Environment Protection (Ambient Air Quality) Measure (Commonwealth)	
	Environment Protection Policy (Air Quality) 2004	
Land Contamination	National Environment Protection (Assessment on Site Contamination) Measure (Commonwealth)	
Noise Quality	Draft Environment Protection Policy (Noise) and Impact Statement December 2006	
Dangerous Goods	Dangerous Goods (and regulations) Act 1998	
Industrial Chemicals	Industrial Chemicals (Notification and Assessment) Act 1989 (Commonwealth)	
Flora and Fauna	Nature Conservation Act 2002	
	Threatened Species Protection Act 1995	
	Wild Life Regulations 1999	
Weed Management	Weed Management Act 1999	
Greenhouse Gases & Ozone depleting substances	Ozone Protection and Synthetic Greenhouse Gas Management Act 1989 (Commonwealth)	
	Ozone Protection and Synthetic Greenhouse Gas Management Regulations 1995 (Commonwealth)	
Cultural Heritage	Aboriginal Relics Act 1975	
	Historic Cultural Heritage Act 1995	
Land Use Planning	Land Use Planning and Approvals Act 1993	
Health and Safety Issues	Public Health Act 1997	
Fire Risk	Fire Service Act 1979	
	General Fire Regulations 2000	
Water Quality	State Policy on Water Quality Management 1997	
	Pollution of Waters by Oil and Noxious Substances Act 1987	
	Water Management Regulations 1999	



	Australian and New Zealand Guidelines for Fresh and Marine Water Quality. ANZECC/ARMCANZ, October 2000
	State Guidelines on treated effluent reuse
	Australian and New Zealand Guidelines for monitoring and reporting. ANZECC/ARMCANZ, 2000
Others	National Environment Protection (National Pollutant Inventory) Measure (Commonwealth)
	Sewers and Drains Act 1954
	State Policies and Projects Act 1993
	Plumbing Regulations 2004
	DPIWE Guidelines for Recycled Water and Sewerage Management Plan
	Forest Practices Act 1985
	Forestry Act 1920

Environmental Mitigation Measures

The next section describes environmental mitigation measures that will be implemented to ensure the Project has a minor environmental impact.

1 Soil and Water Management		
Environmental Objectives	Ensure there is no impact on the River Derwent and the Florentine River associated with alterations to surface or ground water regimes	
	Ensure compliance with relevant health and environmental regulations	
	Minimise potential for flooding with effective surface water management	
	Excavated spoil and contaminated soil to be reused or disposed of appropriately	
	No changes in water quality parameters as a result of construction	
Legislation	State Policy on Water Quality Management 1997	
	Pollution of Waters by Oil and Noxious Substances Act 1987	
	Water Management Act 1999	
	Water Management Regulations 1999	
Guidelines Standards and	ANZECC/ARMCANZ, October 2000 guidelines	
other References	UGL Soil and Water Control Standard	
	Wash Down Guidelines for Weed and Disease Control Edition 1 (DPIWE 2004)	

Action Mitigation Measures

Responsibility



 SALMON ENTERPRISES OF TASMANIA PTY LIMITED
 ABN 25 009 550 145

 Administration: 289 Wayatinah Road, Wayatinah TAS 7140 Australia

 PO Box 1 Wayatinah TAS 7140 Australia Telephone: (03) 6289 3280 Fax: (03) 6289 3290

1.1	All construction machinery will be cleaned prior to and on leaving site to remove all soil and botanic matter as described in Wash Down Guidelines for Weed and Disease Control Edition 1 (DPIWE,2004)	Contractors
1.2	All spoil stockpiles will be maintained to industry best practice through the use of sediment fences, earth bunds and appropriate soil stabilisation techniques. This includes re-vegetating stockpiles.	Contractors
1.3	Controls to be installed to manage the movement of clean and contaminated water around the site. This will include the installation of appropriate sized sediment control basins, gross pollutant traps and other erosion and sediment control measures (sediment fencing, filter socks etc.) as required.	Site Manager
	All storm-water management infrastructure is to be regularly monitored and maintained.	
1.4	Fuel and chemicals to be stored in accordance with AS 1940	Contractors
1.5	Adequate spill control and clean up equipment will be available on site in the case of a chemical spill. Site personnel will be trained in correct techniques for deliver and transfer of fuels.	Contractors
1.6	All site personnel will be trained in spill response and containment	Contractors
1.7	Areas housing equipment containing liquids and oils that could prove detrimental to the environment will be designed in accordance with the Storage and Handling of Flammable and Combustible Liquids – AS - 1940	Site Manager

2 Flora and Fauna Management		
Environmental Objectives	Minimise the effect of the project on significant flora and fauna species and their habitat.	
	Minimise the removal of native and screening vegetation.	
	Ensure design and procurement activities incorporate requirements for noise management during construction.	
Target	Zero death and injury to native fauna.	
	Significant reduction in weed population on the construction site and no spreading of weeds off site.	
	No additional vegetation clearing other than that specified.	
Legislation	Environment Protection and Biodiversity Conservation Act (EPBC) 1999 (Commonwealth)	
	Threatened Species Protection Act (TSPA) 1995	
	Weed Management Act 1999	
Guidelines Standards and other References	DPIWE 2004 Wash down Guidelines for Weed and Disease Control – Edition 1	
	National strategy for the Conservation of Australia's Biological Diversity	



(Commonwealth)

Threatened Species Strategy for Tasmania

Draft Tasmania's Nature Conservation Strategy

Action	Mitigation Measures	Responsibility
2.1	A vegetation management plan has been prepared and will be progressively implemented throughout the project	Site Manager
2.2	No vegetation outside the construction zone will be cleared, damaged, trimmed or removed.	Site Manager
2.3	Faunal impacts shall be considered as part of the site lighting plan.	Project Manager
2.4	Vegetation that is removed and is taken off site will be disposed of in manner that does not spread weed infestations.	Contractor
2.5	Weed infested material will not be used as mulching to reduce the propagation of weeds.	Contractor
2.6	All construction machinery will be cleaned prior to and on leaving site to remove all soil and botanic matter as described in Wash Down Guidelines for Weed and Disease Control Edition 1 (DPIWE,2004)	Contractor
2.7	During the construction phase an on going weed management program will be undertaken to minimise weeds.	Site Manager
2.8	Gravel and fill etc. will be sourced from areas considered low risk of importing phytophthora to site.	Contractor
2.9	Fauna deaths and feral animal sightings are to be reported to the Site Manager immediately.	Contractor
2.10	No clearing of existing vegetation outside the construction zone will be allowed without express permission of the Site Manager	Contractor

3 Visual, Landscape and Rehabilitation Management	
Environmental Objectives	Ensure that the impacts to the visual amenity resulting from the development are minimised.
Target	No community complaints about the visual amenity of the site

Action	Mitigation Measures	Responsibility
3.1	Finishes will be selected to reduce glare and reflection, thus reducing the hatchery's visibility and visual impact.	Project Manager
3.2	A vegetation management plan has been prepared and will be progressively be implemented throughout the project	Project Manager



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3.3	No vegetation outside the construction zone will be cleared,	Site Manager
	damaged, trimmed or removed.	

4 Noise and Vibration Management		
Environmental Objectives	Ensure design and procurement activities incorporate requirements for noise management during construction	
	Ensure that noise impacts of construction activities comply with statutory requirements and the Pollution Control (Miscellaneous Noise) Regulations 2004	
	Ensure that vibration impacts from construction activities are acceptable	
Target	No complaints as a result of construction noise or vibration	
	Compliance to all construction noise limits	
Legislation	Environmental Management and Pollution Control (Miscellaneous Noise) Regulations 2004	
Guidelines Standards and other References	Draft Environmental Protection Policy (Noise) and Impact Statement December 2006	

Action	Mitigation Measures	Responsibility
4.1	Saltas will consider potential noise sources and levels as part of the detailed design and identify any necessary additional noise reduction measures to ensure that noise levels are maintained at the target levels.	Project Manager
4.2	Unless otherwise approved by relevant authorities all construction activities, including entry and departure of vehicles shall be restricted to the hours 7.00am to 7.00pm (Monday to Friday) and 8.00am to 5.00pm (Saturdays) and at no time on Sundays.	Site Manager
4.3	Work outside normal working hours include:	Site Manager
	 The delivery of materials which is required outside these hours for safety or emergency reasons. 	
	 Emergency work to avoid the loss of life, property damage or environmental damage. 	
	 Any other work agreed between Saltas and neighbours. 	
4.4	Properly maintain vehicles and equipment to ensure noise source levels are not exceeded. Monitor excessively noisy equipment and modify or remove from site if noise levels are exceeded.	Contractors
4.5	Ensure construction equipment has adequate noise and vibration control equipment and is maintained in good working order. Measures include:	Contractor



•	Earth moving equipment fitted with residual class mufflers
•	Acoustic enclosures for any diesel generators and/or air compressors.
•	Where possible, use high pressure hydraulic systems instead of pneumatic hammers to split rock.

4.6	All noise complaints will be immediately referred to the Project Manager who will record and facilitate remedial measures.	Site Manager
4.7	Noise monitoring during construction phase to check compliance.	Site Manager

5 Air Quality Management	
Environmental Objectives	Ensure design and procurement activities incorporate requirements for air quality management during construction phase.
	Ensure that dust generated during construction does not cause any environmental or human health problems or impacts on the amenity.
	Use all reasonable and practical measures to minimise airborne dust.
Target	No significant environmental, health or amenity impacts attributed to site works
Legislation	State Policy on Air Quality
Guidelines Standards and other References	National Environment Protection (Air Toxics) Measure (Commonwealth)
	National Environment Protection (Ambient Air Quality) Measure (Commonwealth)
	Environment Protection Policy (Air Quality) 2004

Action	Mitigation Measures	Responsibility
5.1	Surface relevant long term work and heavy vehicle movement areas, including internal haul roads, with compacted gravel to minimise vehicle generated dust emissions.	Site Manager
5.2	Use water tanker and water sprays to suppress dust when necessary.	Contractors
5.3	Spray stockpiles with water to suppress dust when necessary.	Contractors
5.4	Service and maintain all plant and equipment powered by internal combustion engines to ensure emissions comply with the relevant legislation.	Contractors
5.5	Loads on trucks to be covered to prevent dust generation.	Contractors



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5.6	Vehicles not to be left idling unnecessarily.	Contractors

6 Archaeology and Heritage Management	
Environmental Objectives	Minimise the effect of the project on Aboriginal and non-Aboriginal cultural heritage sites and areas.
	Ensure the protection and management of Aboriginal cultural heritage sites, places and objects in accordance with legislation.
	Ensure the protection of Non-Indigenous historic heritage places in accordance with legislation.
Target	No damage to identified Aboriginal artefacts.
	Compliance with legislation
	Full documentation of any found artefacts
	No community complaints about the visual amenity of the site
Legislation	Historic Cultural Heritage Act 1995

Action	Mitigation Measures	Responsibility
6.1	No works to be undertaken in the vicinity of an identified artefact until the area is assessed and a permit is issued.	Site Manager
6.2	No works to be undertaken in the vicinity of any other identified Aboriginal cultural heritage until an assessment has been completed and a permit issued.	Site Manager
6.3	Any material identified by an Aboriginal Heritage Officer during the initial ground breaking process to be recorded.	Site Manager
6.4	No vegetation outside the construction zone will be cleared, damaged, trimmed or removed.	Site Manager

7 Hazardous Substances and Dangerous Goods	
Environmental Objectives	Ensure dangerous goods are handled and stored in a manner that minimises the potential for spill
Target	No significant impacts as the result of a spill or lack of containment. Storage of all chemicals as per As 1940
Legislation	Dangerous Goods Act 1998 (and Regulations) Radiation Protection Act 2005



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Action	Mitigation Measures	Responsibility
7.1	All fuel, lubricants and oil to be stored in bundled facilities in accordance with the relevant Australian Standard	Contractors
7.2	A detailed list of chemicals approved for use on site, along with the relevant Material Safety Data Sheet (MSDS) will be kept in the site office.	Site Manager
7.3	Hazardous materials are to be managed in accordance the guidelines provided on the relevant MSDS.	Contractors
7.4	All vehicles will be adequately maintained to minimise the potential for leaks.	Contractors
7.5	All plant and machinery will be inspected prior to their commencement of work and periodically throughout the construction phase.	Contractors
7.6	Refuelling of mobile equipment will be conducted in locations with Contractor appropriate spill response equipment and appropriately trained personnel. Passenger vehicles will not be permitted to be refuelled on site.	
7.7	If maintenance is carried out on site, spill trays are to be used and oil disposed of according to regulations.	Contractors
7.8	Procedures to be developed for oil-filling transformers and distillate tanks.	Contractors
7.9	Bulk oil and distillate tanks to be contained in bunded areas.	Contractors
7.10	Transport of hydrocarbons to comply with the Australian Dangerous Goods Code.	Contractors
7.11	Any contaminated soil or waste shall be disposed at a licensed facility.	Contractors

8 Waste and Energy Management		
Environmental Objectives	 Avoid/minimise generation of waste material, appropriate reuse/recycling where this is not practicable 	
	 Wastes to be disposed of in a lawful manner which does not harm the environment 	
Target	 All waste will be separated and recyclable materials appropriately recycled 	
	 Records of all waste transported and received at licensed landfills to be kept on site 	
	 Use materials produced with a recycled content where possible 	



•

Legislation

Environmental Management and Pollution Control (Waste Management) Regulations 2000

Action	Mitigation Measures	Responsibility
8.1	All contractors must define the likely solid and controlled wastes they will produce and how they will be disposed of.	Site Manager
8.2	Weekly inspections to include litter checks and consequent clean-up if necessary.	Site Manager
8.3	Controlled waste shall be removed from the construction site on a progressive basis and not allowed to stockpile unduly.	Contractors
8.4	Store and dispose of any general garbage to licensed landfill. Litter bins to have secure lids to prevent access by animals.	Contractors
8.5	Construction waste to be sent for recycling where practicable.	Contractors
8.6	Segregate and recycle general solid wastes generated by construction activities.	Contractors

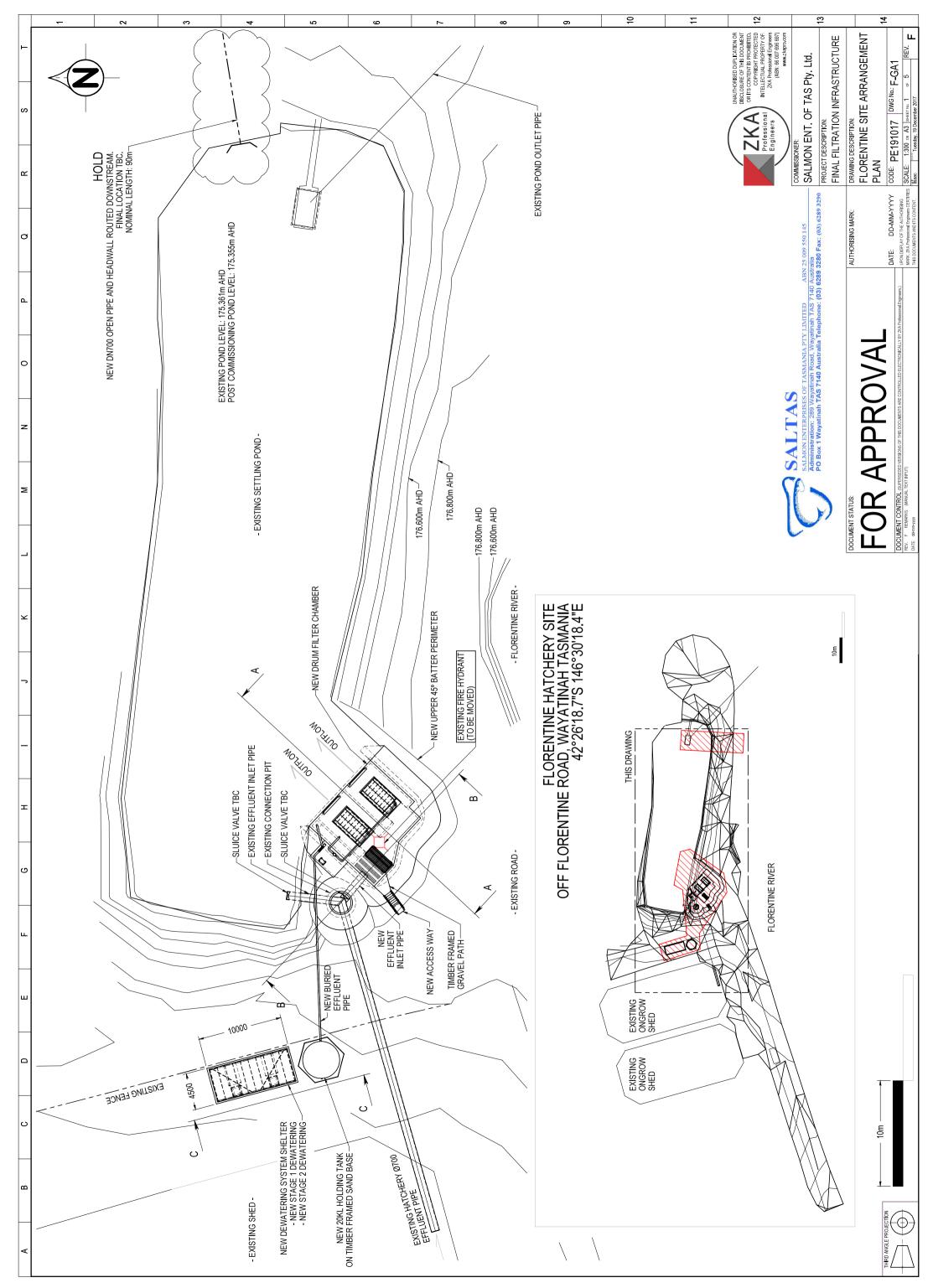


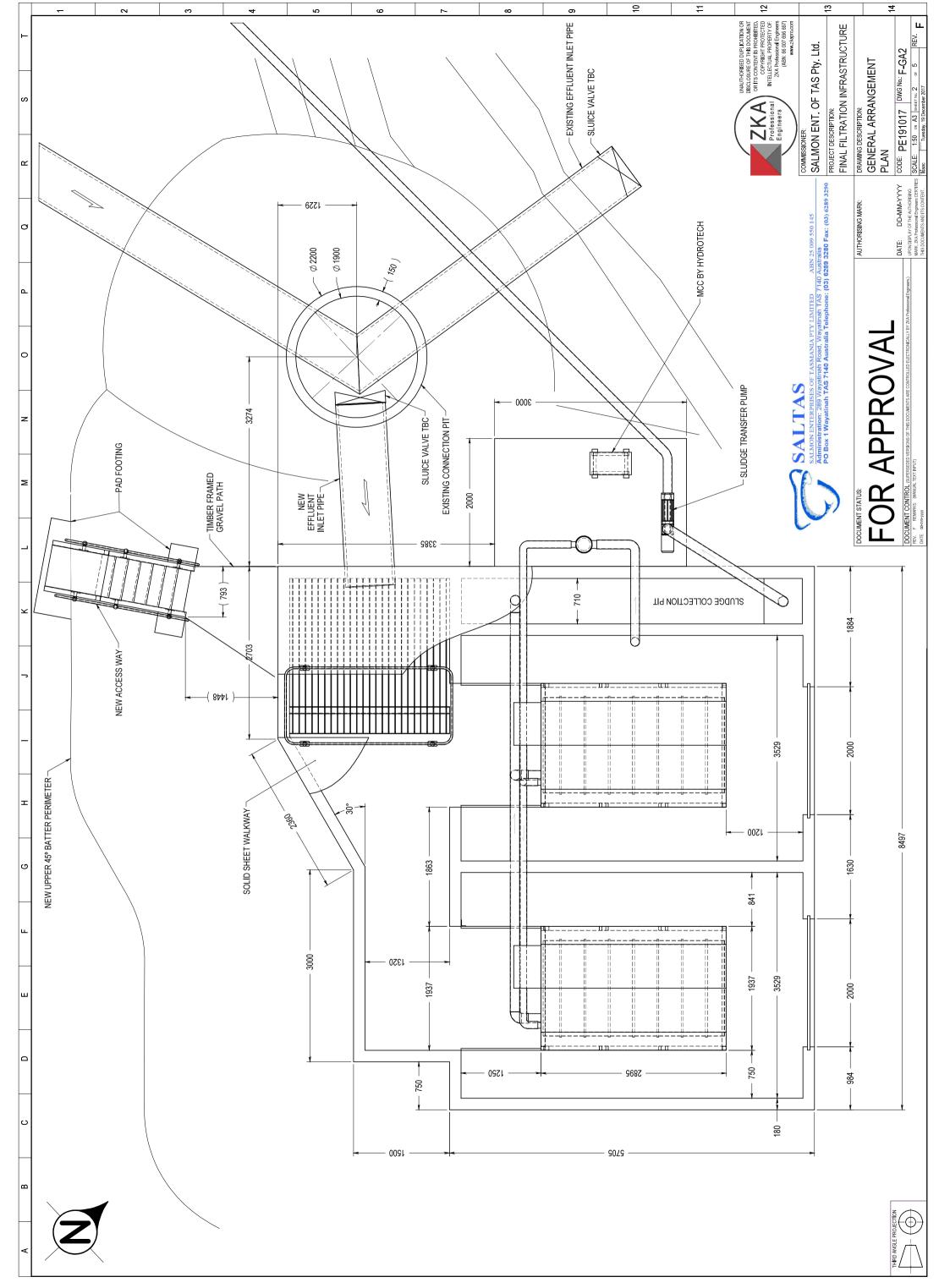
Appendix A – Wayatinah Drum Filter General Arrangement Drawings

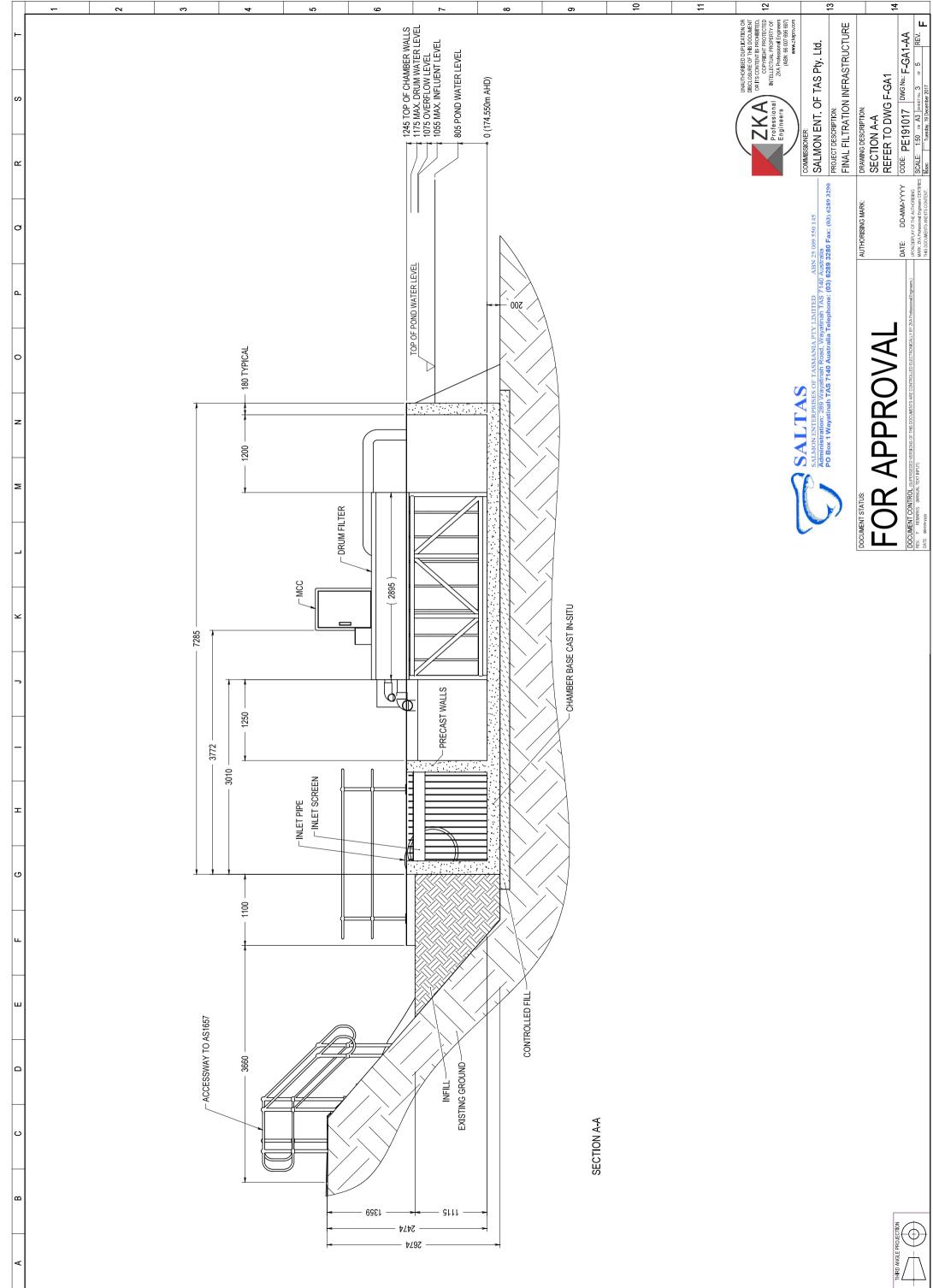
Not applicable to this application for a planning permit on this site

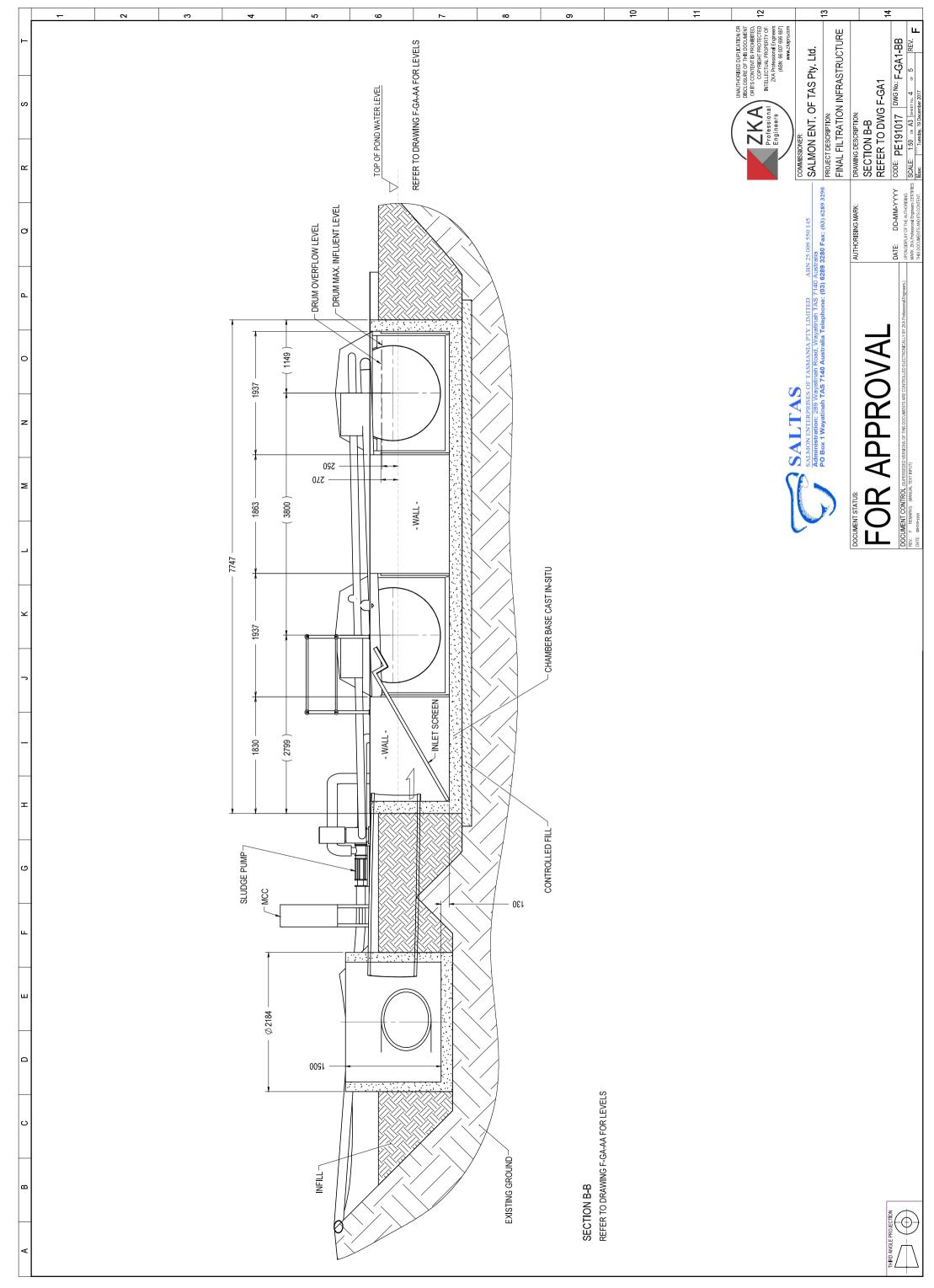


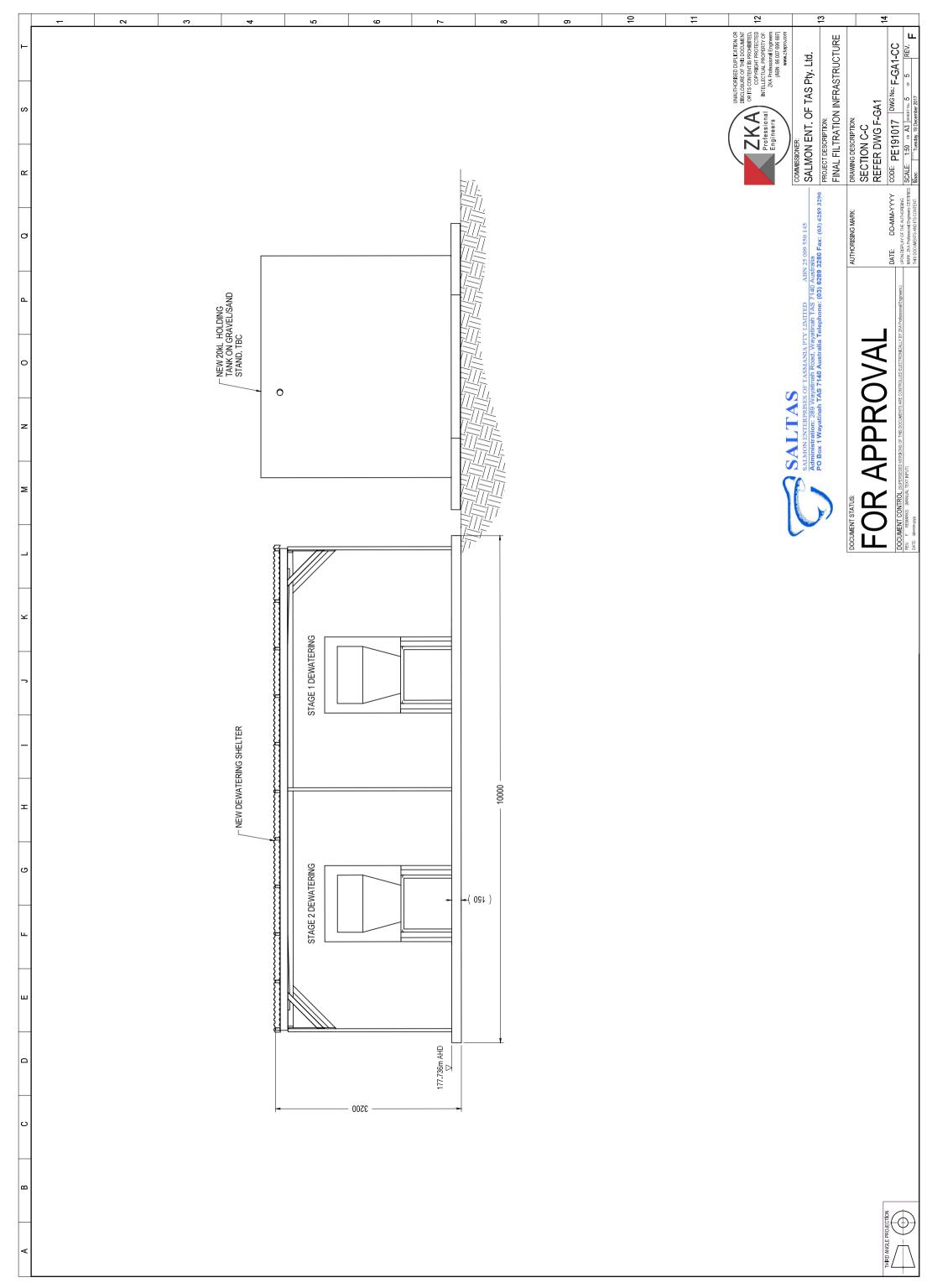
Appendix B – Florentine Drum Filter General Arrangement Drawings













Appendix C – Saltas Environmental Policy

Saltas is committed to environmentally robust business practices. Protecting, conserving and enhancing the environment for current and future generations are a high priority for our business.

To achieve our environmental goals we are committed to the principles of continuous improvement and the prevention of pollution.

Saltas undertakes to:

- Identify and assess environmental risk and act to eliminate or minimise environmental impacts that arise from our products, services and operations.
- Establish measurable objectives and targets aimed at preventing pollution and improving environmental performance; and monitoring and reviewing these measures to ensure that we continually improve.
- Encourage equivalent environmental commitment from our suppliers and contractors.
- Consult with and engage internal and external stakeholders, including local communities and regulators on relevant environmental matters.
- Support the Tasmanian Salmon industry in their pursuit and maintenance of Aquaculture Stewardship Council (ASC) certification.
- Encourage a sense of environmental responsibility among all employees through training, education and communication.
- Ensure the long term sustainability of our industry and the environment we operate within.

Environmental Assessment Report

Florentine Hatchery Drum Filter Project

675 Florentine Road, Florentine

Salmon Enterprises of Tasmania Pty Ltd

February 2019





Environmental Assessment Report		
Proponent	Salmon Enterprises of Tasmania Pty Ltd (SALTAS)	
Proposal	Drum Filter Project	
Location	Florentine	
NELMS no.	9840/2	
Permit Application No.	DA 2018/12 (Central Highlands Council)	
Electronic Folder No.	EN-EM-EV-DE-255653	
Document No.	M409234	
Class of Assessment	2A	

Assessment Process Milestones		
Notice of Intent lodged		
Permit Application submitted to Council		
Referral received by the Board		
Guidelines Issued		
Start of public consultation period		
End of public consultation period		
Draft conditions issued to proponent		
Statutory period for assessment ends		



Acronyms				
AGWQMR	Australian Guidelines for Water Quality Monitoring and Reporting			
AS1940:2017	Australian standard for storage and handling of flammable and combustible liquids			
APVMA	Australian Pesticides and Veterinary Medicines Authority			
AMP	Ambient Monitoring Plan			
Board	Board of the Environment Protection Authority			
BOD	Biochemical oxygen demand			
CEMP	Construction and Environmental Management Plan			
dBA	A-weighted decibels			
DMP	Discharge Management Plan			
DPIPWE	Department of Primary Industries, Parks, Water and Environment			
EC	Electrical conductivity			
EAR	Environmental Assessment Report			
EER	Environmental Effects Report			
EIA	Environmental impact assessment			
EL	Environmental licence			
EMPC Act	Environmental Management and Pollution Control Act 1994			
EMPCS	Environmental management and pollution control system			
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cth)			
LOD	Limit of detection			
LOR	Limit of reporting			
LUPA Act	Land Use Planning and Approvals Act 1993			
NATA	National Association of Testing Authorities			
РСАВ	Policy and Conservation Branch of DPIPWE			
PEV	Protected environmental values			
RAM	Restricted animal product			
RMPS	Resource management and planning system			
SALTAS	Salmon Enterprises of Tasmania Pty. Limited			
SD	Sustainable development			
SDS	Safety data sheet			
TN	Total nitrogen			
ТР	Total phosphorus			
TSPA	Threatened Species Protection Act 1995			
TSS	Total suspended solids			



SSWQGV	Site specific water quality guidelines values	



Report Summary

This report provides an environmental assessment of Salmon Enterprises of Tasmania Pty Ltd (SALTAS) proposed Florentine Hatchery Drum Filter Project.

The proposal involves construction and operation of drum filters at the Florentine Hatchery located between the Florentine River and the Derwent River, east of Lake Catagunya.

This report has been prepared based on information provided in the permit application, and Environmental Effects Report (EER). Relevant government agencies and the public were consulted and their submissions, representations and comments considered as part of the assessment.

Further details of the assessment process are presented in section I of this report. Section 2 describes the statutory objectives and principles underpinning the assessment. Details of the proposal are provided in section 3. Section 4 reviews the need for the proposal and considers the alternatives. Section 5 summarises the public and agency consultation process and the key issues raised in that process. The detailed evaluation of environmental issues is contained in section 6. Other issues are discussed in section 7. The report conclusions are contained in section 8.

Appendix I details matters raised by the public and referral agencies during the consultation process. Appendix 2 contains the environmental licence for the proposal. The environmental conditions in Appendix 2 are a new set of operating conditions for the entire activity that will supersede the existing environmental licence.



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I

I Approval Process

An application for a permit under the *Land Use Planning and Approvals Act 1993* (LUPA Act) in relation to the proposal was submitted to Central Highlands Council on 1 March 2018.

The proposal is defined as a 'level 2 activity' under clause 4(h), schedule 2 of the *Environmental Management and Pollution Control Act 1994* (EMPC Act), being finfish farming. Section 25(1) of the EMPC Act required Council to refer the application to the Board of the Environment Protection Authority (the Board) for assessment under the Act. The application was received by the Board on 6 March 2018.

The Board required that information to support the proposal be provided in the form of an Environmental Effects Report (EER).

Several drafts of the EER were submitted to the Department for comment before it was finalised and accepted on behalf of the Board. The EER was released for public inspection for a 14-day period commencing on 8 December 2018. An advertisement was placed in *The Mercury* and a notice was placed on the EPA website. The EER was also referred at this time to relevant government agencies for comment. Four (4) public submissions were received.



2 SD Objectives and EIA Principles

The proposal must be considered by the Board in the context of the objectives of the Resource Management and Planning System of Tasmania (RMPS), and in the context of the objectives of the Environmental Management and Pollution Control System (EMPCS) (both sets of objectives are specified in Schedule I the EMPC Act). The functions of the Board are to administer and enforce the provisions of the Act, and in particular to use its best endeavours to further the RMPS and EMPCS objectives.

The Board must assess the proposal in accordance with the Environmental Impact Assessment Principles defined in Section 74 of the EMPC Act.

3 The Proposal

The main characteristics of the proposal are summarised in Table I. A detailed description of the proposal is provided in Section 2 (Part B) of the EER.

	Activity
	-
Filtration of waste	water and effluent discharge to the Florentine River.
Location and pla	anning context
Location	675 Florentine Road, Wayatinah, 7140, as shown in Figure 1
Land zoning	Rural Resource
Land tenure	Land owned by the Crown
Existing site	
Land Use	The land supports an existing salmon hatchery. The land surrounding the hatchery is classified as Permanent Timber Production Zone Land, managed by Sustainable Timbers Tasmania.
Topography	The land is situated in a valley at approximately 180 AHD on the banks between the Florentine River and the Derwent River. The surrounding hills to the north and south rise to 250 AHD and 280 AHD, respectively. To the west the land rises toward Mt. Shakespeare approximately 9.3 km from the hatchery. The Florentine River and Derwent River converge as they enter Lake Catagunya at approximately 700 metres downstream of the hatchery.
Geology	Undifferentiated Quaternary sediments
Soils	Not classified
Hydrology	The land slopes towards the Florentine River

Table I: Summary of the proposal's main characteristics



Natural Values	The forested environment surrounding the hatchery is identified as highly suitable nesting habitat for the Tasmanian wedge-tailed eagle (Aquila audax fleayi). Eleven raptor nests are located within 5km of the land, and one nest is within 1.5 km. Species of conservation significant flora in the vicinity of the land include Westringia angustifolia (Narrow-leaf Westringia) and Barbarea australis (riverbed wintercress). Platypus (Ornithorhynchus anatinus) and the water rat (Hydromys chrysogaster) are also known to occur near the land. The only record of a weed species in the vicinity of the land is creeping thistle (Cirsium
	arvense var. arvense), which is located upstream approximately 2.1 km from the land.
Local region	
Climate	Average annual rainfall of 1292.6mm. The mean temperature ranges from 7 to 18.9 degrees Celsius. The prevailing wind direction in the Wayatinah district is westerly.
Surrounding land zoning, tenure and uses	The land surrounding the site is Permanent Timber Production Zone Land.
Species of conservation significance	Tasmanian froglet (<i>Crinia tasmaniensis</i>), lesser Tasmanian darner (<i>Austroaeschna hardyi</i>), Tasmanian darner (<i>Austroaeschna tasmanica</i>), narrowleaf westringia (Westringia angustifolia), and black peppermint (<i>Eucalyptus amygdalina</i>) have been recorded within 1 km of the land.
	The common eastern froglet (or brown froglet, <i>Crinia signifera</i>) have been recorded at approximately 1.3 km. The nearest raptor nest is located approximately 1.5 km from the proposed
	operational area, with another 10 nests within 5 km.
Proposed infrastr	ucture
Major equipment	Hydrotech drum filter, screw press, transfer pumps (for water and sludge waste), backwash pump,
Other infrastructure	Settlement pond, RAS, flow-through tanks, pipes and drains, Lamella plate clarifier, sludge tank, trucks, hydraulic hammer, mobile crane, auxiliary blower, diesel generator, air compressor.
Inputs	
Water	Influent water from the Florentine River
Energy	Small volumes of petrol and diesel, electricity
Other raw materials	Various salmon feeds, chemicals for operations
Wastes and emiss	sions
Liquid	Discharge of wastewater into the Florentine River at a point approximately 700m upstream of the Derwent River, where it enters Lake Catagunya.
Atmospheric	Odour associated with storage and accumulation of salmon-derived organic waste (sludge waste). Dust associated with excavation and construction.
Solid	Salmon faecal matter and waste feed (as sludge waste) to be collected regularly (~every 4 days).
	1



4

Controlled wastes	Chemical residues (not retained by the drum filter screens)
Noise	From operation of excavator and vehicles associated with site preparations and installation of infrastructure.
Greenhouse gases	Not relevant for this assessment
Construction, cor	nmissioning and operations
Proposal timetable	The drum filter should be fully operational within 5 months of commencement of construction in early 2019. The schedule for ground works allows 15 weeks, with mechanical installation of the drum filters and associated infrastructure expected to take approximately 3 weeks. Commissioning is expected to take two weeks, with another 6 weeks scheduled for any required adjustments to the system.
Operating hours (ongoing)	Construction operating hours will be 0700 – 1900 weekdays and 0800 – 1700 on Saturdays.
	Hatchery operating hours are 24 hours per day, 7 days per week, ongoing.
Other key charac	teristics
N/A	

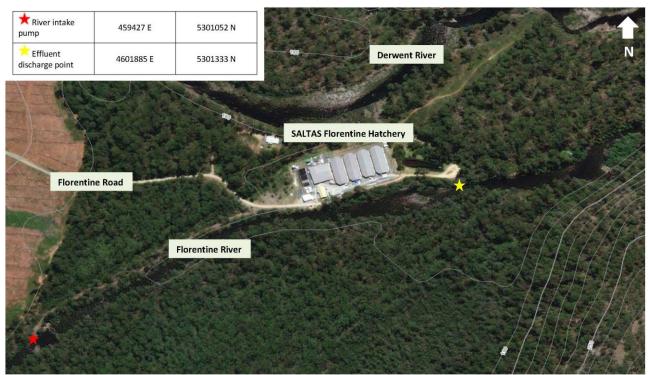


Figure 1. (Figure 7 of the EER) Area map showing the location of the Florentine Hatchery to the east of Lake Catagunya.



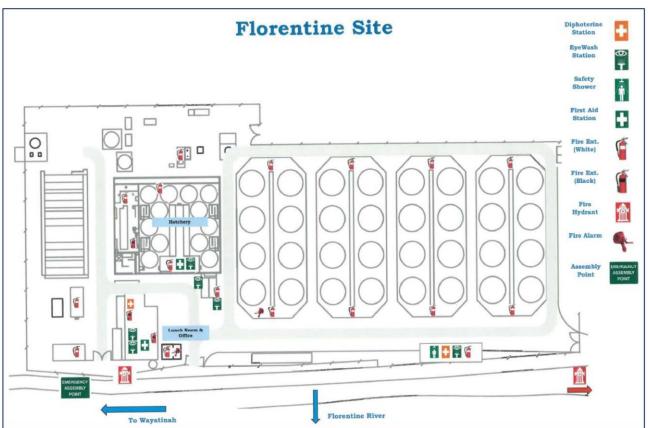


Figure 2. (Figure 8 of the EER) Schematic of the Florentine Hatchery layout. The drum filters are proposed to be located on the side of the settlement pond (bottom right corner).



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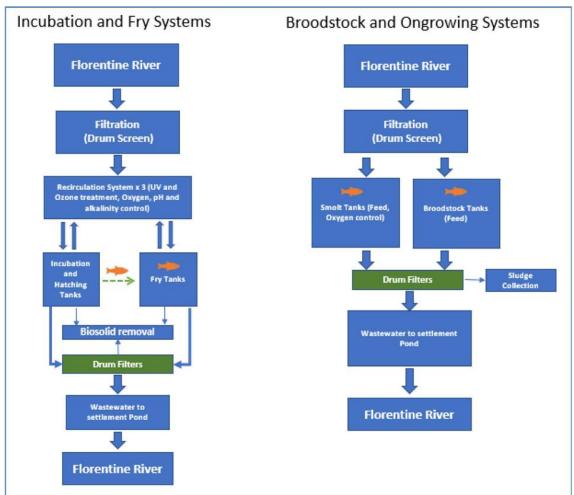


Figure 3. (Figure 2 of the EER) Conceptual model of the Florentine Hatchery



Figure 4. (Figure 3 of the EER) Illustration of a drum filter design by Hydrotech, similar to that proposed.



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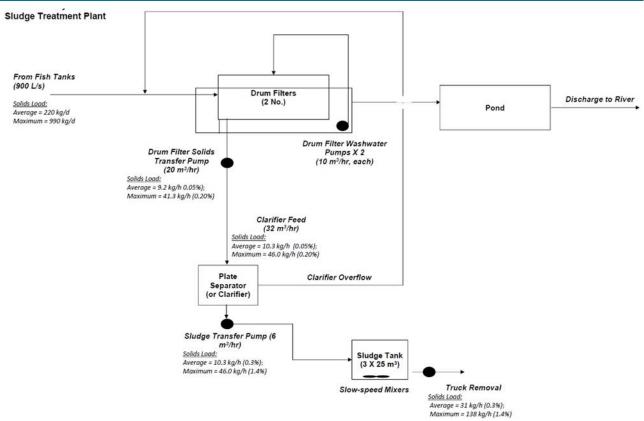


Figure 5. (Appendix A of the EER) Conceptual Model of the sludge waste treatment system.

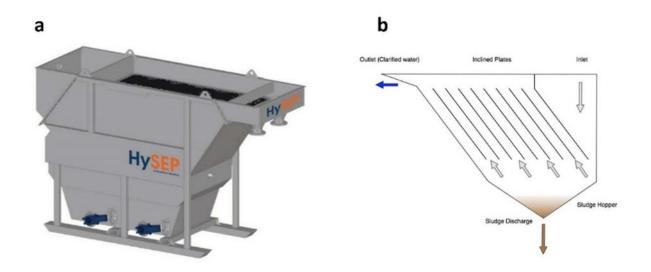


Figure 6. (Figure 5 of the EER) Lamella Plate Clarifier - an integral part of the sludge waste treatment system that dewaters the sludge





Figure 7. Settlement pond for Florentine Hatchery effluent.



4 Need for the Proposal and Alternatives

The existing flow-through hatchery is designed to take in large volumes of water from the Florentine River above the hatchery. The water becomes loaded with salmon faecal material (organic solids and sludge waste) as it passes through the farm and is discharged via a single settling pond and outfall to the Florentine River. The EER (Section 2.1.4) indicates that the current settlement pond is not effectively treating the hatchery effluent (Figure 7). SALTAS intends to reduce the nutrient loading of the effluent using a method that would effectively treat the high volumes of water that flow through the hatchery.

The EER (Section 2.4) states that preliminary scoping of the project identified the following treatment methods as options:

- Increased retention of solids in existing settlement pond.
- Increased desludging of the settlement pond (removal of solids).
- Constructed wetlands to trap solids and nutrients.
- Bio-filtration to trap solids and nutrients.
- Drum filters to remove solids from the wastewater.

Based on the flow rates and organic loading of the wastewater, drum filters (Figure 4) are presented as the most suitable method for improving effluent quality released from the hatchery. This method is sufficiently gentle to filter suspended solids from the effluent without excessive dissolution of bound nutrients.

Increasing the rate of manual removal of settled sludge waste from the bottom of the settlement pond was not considered an effective method to remove solids from hatchery effluent. There is also insufficient space to establish a constructed wetland in this location.

According to the EER, settlement ponds are not considered efficient for primary treatment of wastewater. The sludge waste is likely to release dissolved nutrients due to exposure to physical agitation and microbial decomposition. Additionally, expansion of the existing settlement pond to retain wastewater for more than one hour is not possible, as there is insufficient space between the existing infrastructure and the Florentine River. Elevation of the pond to avoid the risk of the river flooding the site is not considered feasible.

The option of using a bio-filter (fine filtration and microbial reaction) to reduce organic nutrient loads would require complex engineering, adequate space and major capital expenditure. This option was also presented in the EER as impracticable.



5 Public and Agency Consultation

A summary of the public representations and government agency/body submissions is contained in Appendix I of this report.

4 public representations were received (Refer to Appendix 1 for a summary). The main issues raised in the representations included:

- Continued discharge of significant loads of dissolved nutrients to the Florentine River. Drum filters remove part of the solid organic waste but not the dissolved nutrient fraction.
- Drum filters do not represent accepted modern technology or environmental best practice. Alternative methods of wastewater treatment should be considered or the activity could be relocated.
- Algal blooms may result from nutrient enrichment of the water body, potentially reducing the quality of drinking water and recreational values of the waters downstream. Costs may be incurred by users of these waters.
- Discharge of untreated effluent directly to the Florentine River during the construction period.
- Anoxic conditions could potentially develop in the plate clarifier (Figure 6), resulting in an increased flux of dissolved nutrients in the waste stream to be discharged.
- Use of therapeutic treatments presents a risk of the pollutants being released into the receiving waterway.
- Deficiencies in the existing water quality datasets.

Submissions were received from the following organisations and one individual:

- Derwent Estuary Program
 - Main comments related to the proposed activity's inability to remove dissolved nutrients from the effluent, and the limitations in the information used to develop the case for assessment (Refer to Appendix I for a summary).
- Hydro Tasmania
 - Main comments related to the potential for adverse impacts on water quality and potential effects on human health.
 - Also advocated for a monitoring program for the receiving reservoir, and encouraged sharing of water quality data with government agencies.
- Environment Tasmania
 - Main comments related to the proposed activity's inability to remove a more substantial pollutant load from the effluent, limitations in the information used to develop the case for assessment, and the need to use best practice and fit-for-purpose technology to prevent further impacts downstream (refer to Refer to Appendix I for a summary).

The following Divisions/areas of the Department of Primary Industries, Parks, Water and Environment also provided advice on the EER:

• Regulator, EPA Tasmania



- Water Specialist, EPA Tasmania
- Air Specialist, EPA Tasmania
- Noise Specialist, EPA Tasmania
- Policy and Conservation Branch, Natural and Cultural Heritage Division

6 Evaluation of Environmental Issues

EPA Tasmania has evaluated environmental issues considered relevant to the proposal. Details of this evaluation, along with the Environmental Licence conditions required by the Board, are discussed below:

The following environmental issues are discussed:

- I. Effluent discharge and nutrient enrichment
- 2. Natural Values (flora, fauna and habitat)
- 3. Odour emissions and air quality
- 4. Noise emissions
- 5. Solid waste
- 6. Weeds, pests, pathogens and biosecurity
- 7. Environmentally hazardous substances
- 8. Stormwater, sediment and run-off

General conditions

The following general conditions, which will be imposed on the activity are standard conditions found on all finfish farm related Environmental Licences:

- Condition G2 Access to and awareness of conditions and associated documents
- **Condition G3** No changes to an Environmental Licence activity without approval
- Condition G4 Incident response
- **Condition G5** Notification of fish and ova mortality
- Condition G6 Change of responsibility
- Condition G7 Change of ownership
- Condition G8 Annual Environmental Review

The following general conditions, which will be imposed on the activity, are specific to address environmental issues raised through the assessment of the activity:

- Condition GI Regulatory limit
- **Condition G9** Additional requirements for Annual Environmental Review
- Condition GI0 Complaints register
- Condition GII Sludge Waste Reuse Management Plan
- **Condition G12** Construction and Environmental Management Plan
- Condition GI3 Discharge Management Plan

Other specific conditions, which will be imposed on the activity are discussed below in sections on the environmental issues potentially linked to the proposal.





Issue 1: Effluent discharge and nutrient enrichment

Description of potential impacts

This proposal to construct and operate two drum filters to treat finfish farm effluent (Figure 4) involves discharge of effluent that contributes to nutrient enrichment of the Florentine River and the Derwent River, where these converge and form Lake Catagunya (refer to Figure 3 and 5 – conceptual model of hatchery and drum filter water treatment process).

The Florentine River flows by the southern boundary of the land in a north-easterly direction towards Lake Catagunya, located approximately 950 metres downstream. The catchment upstream of the hatchery is production forest managed by Sustainable Timbers Tasmania and includes many tributaries flowing into the upper reaches of the Florentine River. The water is of good quality with low concentrations of ions and micro algae. Highest flows in this part of the river are generally during the winter to spring months, and lowest flows occur in summer and autumn. Protected Environmental Values (PEVs) for the waterway include recreational water quality and aesthetics (i.e. low levels of odour, water colour). These values also relate to important uses of Lake Catagunya, including recreational fishing, boating, swimming and paddling. The PEVs also include protection of aquatic ecosystems and industrial water supply (for hydro-electricity generation).

The EER (Section 3.1) indicates that the proposal to establish drum filters to improve the quality of the effluent discharged from the fish farm is likely to result in improvements to the downstream water quality and aesthetics of the receiving environment. Improvements in water quality of a physical and chemical nature will help maintain or improve ecosystem health and help protect the other PEVs of the Florentine River and Lake Catagunya.

The drum filters are designed to minimise decomposition of the faecal matter in the effluent stream and settlement pond by removing waste particles larger than 80 microns. This equates to a significant volume of solid waste (61.2 tonnes of faeces and waste feed as dry weight per year), containing bound nutrients, being removed from the effluent before it is discharged to the receiving environment.

The following aspects of the proposal have potential to elevate the contaminants, including suspended solids and nutrient concentrations, being discharged by the hatchery.

- During the construction phase, ground works have the potential to increase sediment loads in stormwater run-off entering the settlement pond or bypass channel. The groundworks also have potential to increase discharged sediment loads. (Please refer to issue 8 for further discussion of this point.)
- During construction a temporary bypass of the settlement pond will exclude the existing solids settling phase of effluent treatment, potentially resulting in higher volumes of solid particles from the effluent stream being discharged to the receiving waters; and
- During construction the effluent stream moving along the temporary bypass channel will be more turbulent than a settlement pond. This may cause solid particles in the effluent to physically break-down before discharge and increase the concentration of dissolved nutrients in the effluent.



Management measures proposed in EER

The EER (Section 2.1.1) indicates that the drum filters are the most feasible system to remove solid particles and reduce the organic and nutrient concentrations of the hatchery effluent. They provide mechanical filtration of solid particles, removing all particle-bound nutrients, such as nitrogen and phosphorus, and residual organic matter. The process is expected to remove the solids (>80 microns) before significant decomposition of the organic matter occurs. The organic matter and organically bound nutrients retained by the filter screen will be removed from the main effluent stream and dewatered, and the resulting sludge will be reused at a composting or biosolids site that has approval to receive the waste.

The EER (Section 2.1.2) indicates that during the construction period, groundworks will be undertaken in the settlement pond to prepare it for installation of the drum filters and associated infrastructure. Excavated material will be stockpiled, contoured and stabilised with vegetation. Sediment controls, such as gross pollutant traps/fences and filter socks will be in place where required. Any contaminated water will be removed from the site to a treatment facility that has approval to take the waste (EER section 3.3.5).

During construction, the hatchery wastewater will bypass the settlement pond for approximately 6 weeks to avoid the work zone, and will be diverted directly to the Florentine River. The diversion is not expected to result in any significant increase of organic matter or nutrients to the river, as the existing settlement pond is underperforming, with reduced residence time due to sludge accumulation. Under normal operation the pond has a retention time of only 40-60 minutes, pointing to the need for primary screening as part of the treatment process.

Section 3.7 suggests that once a year, usually in spring, sludge waste that has accumulated in the settlement pond will be removed using an excavator and/or pumps. This will be reviewed as part of the treatment upgrade.

SALTAS will implement its *Construction*, *Safety and Environmental Management Plan*. This plan contains broad objectives and sets an agenda to avoid and minimise any surface water contamination that could arise from construction activities. The plan outlines the following management measures for the construction period.

- Construction machinery cleaned on entering and leaving the site, consistent with the Wash Down Guidelines for Weed and Disease Control Edition 1 (DPIWE 2004).
- Soil stabilisation techniques and re-vegetation of stockpiles.
- Controls on movements of clean and contaminated water, including sediment control measures (filter socks, sediment fencing/basins).
- Maintenance of stormwater diversion channels.
- Storage of fuel and chemicals in accordance with AS1940.
- Onsite spill containment infrastructure and clean up equipment.
- Site personnel to be trained in spill response and containment.



Public and agency comments

Representations

Representors were generally concerned that the Florentine Hatchery would continue to discharge significant loads of dissolved nutrients to the Florentine River, as nutrients will not be removed from the waste stream by the drum filters. The nutrient enrichment of the river by SALTAS may lead to impacts on the downstream aquatic environment and costs incurred by users of the waters.

The representations generally indicated that Lake Catagunya, downstream of the hatchery, is considered an important drinking water supply and recreational area. There are concerns that the proposal only removes part of the solid organic waste and is not effective at removing the dissolved nutrient fraction from the effluent, particularly ammonia and phosphorus. One representor questioned the quantity and proportion of solid organic waste and particulate/dissolved nutrients that will be removed by the proposed system.

Two representations mentioned that algal blooms can result from nutrient enrichment of water bodies, potentially reducing the quality of drinking water and recreational values of the waters downstream.

Three representors were concerned with the proposal to discharge untreated effluent directly to the downstream waterways during the construction period, which is planned for summer and autumn, when smolt biomass is at high levels. Options for reducing biomass during the construction period were suggested. Representors were of the view that the proposal should reflect best practice and accepted modern technology, and suggested that more work was required to bring the hatchery up to modern standards.

One representor was concerned about the return of the 'clarified wastewater' from the plate clarifier (Figure 6) carrying increased dissolved nutrient concentrations back to the drum filter inlet. There was a concern that anoxic conditions could develop in the clarifier and increase concentrations of dissolved nutrients in this waste stream.

One representor was concerned about the use of therapeutic treatments and the potential for these substances to be released to surface waters.

All 4 representors made comments on the deficiencies in the information on existing water quality for the hatchery and nearby waterways. One representor questioned whether SALTAS should use alternative systems capable of removing both the dissolved fraction and the solid waste from the effluent.

Water Specialist Comments

The interim effluent limits derived using the 90th percentile for each parameter, are supported as initial levels to at least maintain or improve current performance. These will be reviewed after commissioning and normal operations. The median emission levels in Table 13 in the EER should be used as a measure of successful operation once sufficient performance data has been collected. It may be necessary for SALTAS to continue monitoring beyond the 6 months proposed.

The site-specific water quality guideline values (SSWQGV) presented in Table 12 in the EER are preliminary. Only after additional ambient monitoring data is collected can SSWQGV be established to replace the default guideline values for the Upper Derwent River Catchment. On analysis of existing water quality, electrical conductivity (EC), temperature, nitrate, total nitrogen (TN), total phosphorus (TP), and total suspended solids (TSS) stand out as key indicators of the performance of any water treatment for this hatchery. They will be particularly important in relation to monitoring potential interactions between the hatchery and the receiving waters, along with the nutrients TKN, TAN, and DRP, and measured organic carbon, i.e. TOC and DOC.



Additional monitoring is required during and after commissioning of the drum screens. The proposed monitoring program is supported in principle, however a longer period of high frequency monitoring and additional water quality sites are recommended at the following locations:

- The inlet and outlet of the drum filter during commissioning.
- Input point, characterising the hatchery influent.
- At the point where the sludge supernatant returns to the beginning of the treatment process.
- Downstream of the existing 'W003' sampling site, to better understand mixing within the stream.
- At biological sampling sites to interpret both the biological and water quality information.

Evaluation

The drum screens are expected to deliver a significant reduction in nutrient loadings to the receiving waterway, by removing organic solids before bound nutrients dissolve into the wastewater. Calculations from feed inputs indicate the drum filter system will remove approximately 17 tonnes (dry weight) of organic solids annually, prior to effluent discharge. Despite this improvement in effluent quality, the treatment will not remove dissolved nutrients from the effluent stream. There is also a risk that the construction and operation of the drum filters may increase the concentrations and/or loading of organic nutrients in the effluent that is discharged from the hatchery, and contribute to nutrient enrichment of the Florentine River and Lake Catagunya, downstream of the hatchery. The two main mechanisms linked to this proposal that increase this risk are:

- Diversion of hatchery effluent into the river for an estimated 6 week period during construction in the area of the existing settlement pond; and
- Return of the clarified wastewater stream back into the drum filter inlet, which may increase the concentrations and/or loads of dissolved nutrients in the effluent at the outfall.

Three representations conveyed concerns about bypassing the settlement pond (Figure 7) during construction. The retention time for the existing pond is estimated to be 40-60 minutes. This is insufficient to settle organic sediment from the wastewater at flows of 600-900 litres per second. Given this, diverting hatchery effluent to the river during installation and commissioning is likely to release equivalent concentrations and nutrient loads as previously. This is considered to be acceptable in the short term to allow the works to proceed. Future regulation of the activity, in accordance with the *State Policy on Water Quality Management 1997*, will focus on improving effluent quality.

One representation was concerned about the return of the clarified wastewater to the main effluent stream. The Lamella plate clarifier (Figure 6) is required to separate and dewater the solids collected by the drum screen. If the contact time between the liquid and the solid waste is prolonged in the plate separator, or anoxic conditions develop, nutrients from the solid waste may dissolve into the clarified wastewater stream. This could increase the concentrations of dissolved nutrients in the clarified wastewater as it returns to the main effluent stream.

SALTAS has committed to ongoing monitoring to quantify any increase in pollutants. As a contingency, should the main effluent stream exceed the interim effluent limits, the clarified wastewater stream could be diverted to a storage tank for further treatment or be reused at an approved site. Nevertheless, the interim effluent quality limits for discharge to the Florentine River will apply at the existing outfall (end-of-pipe) from the start of commissioning of the drum filters (**Condition EF2** see below for details). Any exceedances must lead to a review of appropriate management and further management actions. SALTAS Commitment 7 relates to a review of all monitoring data after 6 months of normal operations (post commissioning).

Condition EFI formalises the location of end-of-pipe and requires that effluent is not discharged unless it is compliant with the interim effluent quality limits, which are set out in **Condition EF2**.



Protected Environmental Values

All 4 representations were concerned about the environmental values of the receiving environment. The PEVs for the Upper Derwent River Catchment are:

- I. Ecosystem protection
- 2. Water quality for primary and secondary contact, and aesthetics
- 3. Industrial Water Supply, water quality suitable for hydro-electricity schemes

The monitoring data presented in the EER shows that the existing discharge is affecting water quality downstream of the hatchery. When the variation to the Environmental Licence comes into effect (subject to Board approval), it will be the first time that discharge quality limits for the activity have been set. Ongoing regulation by EPA Tasmania will focus on continued improvement of the hatchery's wastewater treatment processes, consistent with the SPWQM. Refer to discussion below, with respect to the Interim Effluent Quality Limits and **Condition EF2**.

Water throughput and drum filter bypass events

One representor was concerned with the proposed discharge of untreated effluent directly to the waterway during the period of highest smolt biomass in summer to autumn months. The current performance of the existing settlement pond at the hatchery is poor. Construction and installation of the drum filter will be an improvement to the existing activity, but must be undertaken at a time that will avoid periods of heavy rainfall, which generally occurs between June and August.

Potential effects of the proposed construction activities on wildlife in the vicinity, for example Tasmanian wedge-tailed eagles, must also be taken into account (Refer to Issue 2). The wedge-tailed eagle breeding season occurs from July to February and is the period when construction noise is most likely to affect this species. It is anticipated that the majority of construction and associated noise will have been completed by this time.

On balance, it is considered that due to its expected environmental benefits, the installation of the drum filter treatment system should represent an improvement on existing practices. The temporary diversion of the effluent directly to the river is considered a necessary step in upgrading the hatchery. Fortnightly water quality and flow monitoring of the upstream waters, influent, effluent and receiving Florentine River waters is required during the installation and commissioning period to understand and quantify the net risk presented by the effluent discharge to the receiving environment.

In addition, it is important that SALTAS records all future drum filter bypass events to build a clearer understanding of the interactions between discharged hatchery effluent and the receiving environment, for the purpose of reviewing water quality datasets. **Condition OP3** is imposed to require that SALTAS establish a system for logging bypass events, effective within 4 weeks of the Environmental Licence conditions taking effect.

Condition G9 requires that a Drum Filter Bypass Report must be included as part of the Annual Environmental Review. The report must provide details of the circumstances relating to each bypass event including:

- The maximum rate of wastewater inflow at which bypass of the drum filter was avoided and wastewater treatment was not impeded.
- The rate of wastewater inflow at which bypass of the drum filter was necessary.
- The timing and reasons for the bypass event.
- The volume of untreated effluent discharged.

Implementation of a water quality monitoring program will be formalised through **Condition M3**, which relates to Commitment 5 to undertake ongoing fortnightly water quality sampling, as outlined in the EER, however, an extended period of monitoring is applied by **Condition M3**.



Water quality is to be monitored in the Florentine River at a site in the weir upstream of the hatchery and at sites approximately 60 metres and 200 metres downstream of the effluent outfall. Additionally, water quality is to be monitored at two sites at the hatchery, the outfall of the settlement pond, and at a site representing the influent received at the hatchery from the Florentine River. Water quality monitoring must be conducted fortnightly until the drum screens are commissioned, including through the bypass period, and fortnightly for the period from October 2019 to June 2020 to capture annual production increase to a peak biomass, then monthly thereafter. The specified parameters to be monitored were identified as indicators of potential environmental impacts in the downstream receiving waters, relevant to the fish farm activities.

Interim effluent quality limits

The proposed interim effluent quality limits, based on the 90th percentile value of the existing effluent quality, are supported as initial levels to at least maintain or better current performance. However, previous measurements and samples collected for effluent quality were unbalanced across years and seasons of monitoring, which has resulted in the existing data being skewed statistically to reflect winter and autumn conditions. Additional monitoring is required during and after commissioning of the drum filters to collect accurate information about the effluent quality and ambient conditions in the receiving environment.

The Water Specialist has advised of the need for additional effluent quality monitoring sites, specifically at the inlet and outlet of the drum filter during commissioning, to evaluate the performance of the drum filter (**Condition M2**). After commissioning, the drum filter inlet will also be the location where clarified (sludge-free) effluent is returned to the main wastewater stream. The monitoring will assist in assessment of potential impacts from the clarified effluent stream being returned to the main effluent stream.

The Water Specialist has recommended that the median values, presented in Table 13 of the EER, should be used as a measure of an improving operation, both as a limit and also in trend analysis of performance. The effluent quality parameters to be monitored should include, electrical conductivity (EC), temperature, nitrate, total nitrogen (TN), total phosphorus (TP) and total suspended solids (TSS). On analysis of the existing water quality datasets, these parameters stand out as being key indicators of the performance of any water treatment for the hatchery. Additional parameters should also be included to better understand the nutrient speciation, that is, total ammonia nitrogen (TAN), total Kjeldahl nitrogen (TKN), and dissolved reactive phosphorus (DRP). Also a measure of carbon should be included, that is, total organic carbon (TOC) and dissolved organic carbon (DOC). Interim effluent quality limits are required until the expected performance of the drum filters is verified. **Condition EF2** formalises the interim effluent quality limits for key pollutant concentrations, which will come into effect before commissioning of the drum filters. These limits should be reviewed and revised after the drum filter performance is evaluated (before the Discharge Management Plan is completed – refer below).

Condition M3 has monitoring requirements that will provide a record of the quality of the discharge to assess compliance with the effluent quality limits in Table 1 (**Condition EF2**), including during the bypass period.

After commissioning the drum filters, the wastewater must undergo treatment via the drum filter system and settlement pond before reaching the end-of-pipe. The statistical assessment of the effluent quality must not result in exceedance of the median limit, 90th percentile and maximum limit for each water quality parameter (**Condition EF2**). The discharge management plan (DMP) subject to approval by the Director will inform further improvements, if required, on management or treatment process.

Ambient water quality monitoring



Ambient monitoring of receiving waters for the Florentine River and Lake Catagunya must be undertaken to assess the influence of the discharged effluent on the receiving water bodies. SALTAS must develop an ambient monitoring plan for receiving waters, which is informed by the Australian Guidelines for Water Quality Monitoring and Reporting (AGWQMR) (Condition M5). The monitoring must be conducted to characterise the ambient water quality and biological conditions and account for the PEVs of the receiving waters of the Florentine River. A report presenting the results of the monitoring should include an assessment of the dilution and dispersion of the likely pollutants discharged by the hatchery.

Water quality datasets for the upper Florentine River and the Lake Catagunya in the vicinity of the hatchery are temporally and spatially limited, and there is a lack of suitable data to access the cumulative impacts of the hatchery on the downstream aquatic environment. The ambient water quality monitoring program should include a location that validly represents influent when taken from the Wayatinah Lagoon to augment the flow-through in the hatchery. Additional monitoring sites downstream of the effluent outfall, coinciding with the biological monitoring locations, are required. Water quality monitoring at the biological sampling locations will help understand the relationship between water quality and the biological community in the Florentine River. Monitoring of these sites is also important to gain an increased understanding of the influence of mixing of the effluent plume in the receiving waterway.

The Ambient Monitoring Program (AMP) must be submitted to EPA Tasmania by 30 June 2019 and implemented within a month of the Director's approval (**Condition M5**). The program is intended to characterise ambient water quality and ecological health of the downstream water body for the purpose of assessing the impacts of the hatchery's effluent over the annual production cycle, capturing seasonal variation. It must include technical studies that investigate the dilution and dispersion of effluent in the receiving waters, with a view to determining whether a mixing zone is required. The assessment must consider impacts on PEVs and relevant sensitive receptors. The results must be documented in an ambient monitoring report (AMR), to be used to inform the development of a Discharge Management Plan (DMP)

The EER (Section 3.14) indicates that the existing Monitoring Program will continue with fortnightly sampling, then reduced to monthly sampling once a comprehensive data set is attained. The monitoring program sets out water quality guideline values (EER section 3.3.1.2) and effluent limits (EER section 3.3.2.1). The EPA Water Specialist has advised that the interim guideline values and limits, and review process through the DMP, are appropriate to support the proponent to achieve continual improvement of effluent quality to protect identified environmental values. Monitoring will occur fortnightly until the data sets are sufficiently representative of seasonal/operational variation in water quality, following the commissioning of the drum filters.

Condition M6 formalises the requirement for accurate geographic references, such as GPS coordinates or grid references, for the sampling locations to be submitted to the Director of the EPA.

Discharge Management Plan

By March 2019, SALTAS will have commenced collection of an augmented and comprehensive water quality dataset from its water quality and flow monitoring programs. This data will complement the data for effluent quality and downstream biological monitoring. Once the drum screen operation and performance are optimal and well understood, SALTAS must analyse its datasets and review its ambient monitoring report to develop options for improving the effluent management at the hatchery. The interim effluent quality limits will be assessed by the EPA after reviewing the monitoring results, and any required modifications discussed with EPA Tasmania. The need, or otherwise, for a mixing zone for the effluent plume should be evaluated, and the wastewater treatment and sludge re-use system and its methods should be evaluated against the observed impacts on the receiving environments. Alternative methods, with regard to accepted modern technology and best environmental management practices, must be reviewed. This work needs to:



- a. Demonstrate that effluent discharge is not significantly adverse to the achievement of the water quality objectives for the receiving environment; or
- b. Describe the actions to be implemented to address identified issues, if significant effect is occurring; and
- c. Determine whether any upgrades to the wastewater treatment system are required to ensure compliance with effluent quality limits to protect the identified environmental values.

The review of the data and the investigation of means for improvement must be documented in a DMP and submitted to EPA Tasmania by 31 March 2020 (**Condition G13**). This is a standard condition for fish farms that discharge to natural waterways. The management approach is consistent with the SPWQM framework for improving performance of existing activities.

Water Quality Guideline Values

One representor has advised that, "The data used to develop the draft interim water quality guidelines is patchy and skewed, and there is much better baseline data available that was collected as part of the Derwent Estuary Program's Derwent Catchment Monitoring Program over a two-year period (August 2015 to August 2017). This data set also provides good seasonal coverage."

The EER (Table 11) presents catchment default guideline values, and preliminary water quality guideline values (SSWQGV) based on the proponent's own data. The EER (3.3.2.1) acknowledges that the sample collection was unbalanced across years, seasons and parameters, and ideally, would have an even distribution of annually collected data for all seasons and parameters. It also acknowledges that the statistics are skewed, as a consequence, toward winter and autumn conditions. SALTAS Commitments 7 and 8 relate to annual reporting on monitoring data and a review of all monitoring data, including the preliminary water quality guidelines values and interim effluent limits, after 6 months of normal operations (post commissioning). This is supported, and is facilitated by **Conditions RP1** and **Condition G8**.

EPA Tasmania is aware of the dataset collected by the Derwent Estuary Program and it will be taken into account when determining draft WQGV. The limit of detection (LOD) and the Limit of Reporting (LOR) are critical when determining appropriate WQGV. All samples must be collected and processed in accordance with Australian Standards, and the National Association of Testing Authorities (NATA) accredited methods. The samples must also be tested in a laboratory that is accredited by NATA (**Condition MI**). All monitoring plans should also be consistent with the AGWQMR.

The ambient monitoring is required to establish SSWQGV that will replace the default guideline values for the Upper Derwent catchment, presented in the EER. Water quality for receiving waters in the vicinity of the hatchery will be reviewed when the performance of the drum filters is reviewed. Interim effluent quality limits for discharge to the Florentine River have been set on the basis of current and expected levels of performance and will be reviewed after commissioning and operation of the treatment process, including the drum filters under peak production. Future upgrades and continual improvement, where practicable, reasonable and consistent with Clause 17.2 of the *State Policy on Water Quality Management* (SPWQM), will be expected for this activity.

The information presented in the EER suggests that additional water quality data must be obtained for at least the spring, summer, and autumn seasons to capture a comprehensive set of seasonal and operational variation for the water/effluent quality datasets.

Condition M6 formalises the requirement for accurate geographic references for sampling locations, such as GPS co-ordinates or grid references, to be submitted to the Director of the EPA.

Contingency measures (alternative options for Wastewater Management)



One representor suggested that alternative options be considered for the treatment of the effluent. Once clarified, the sludge-effluent stream will be returned to the drum filter inlet. There is a risk that the clarification process for the sludge-wastewater stream will have accumulated elevated concentrations of dissolved nutrients. Effluent discharged to the Florentine River must comply with the interim effluent quality limits (**Condition EF2**). If exceedances of the interim effluent quality limits occur, and are found to be linked to the clarified effluent stream, the screened sludge wastewater would be diverted to a storage tank for alternative disposal. Additional treatment before discharge may also be considered.

Therapeutic treatment chemicals

One representor was concerned that therapeutic substances may be released to surface waters. Therapeutic chemicals should be used consistent with the registration requirements for each chemical under the Australian Pesticides and Veterinary Medicines Authority (APVMA) and all chemicals must be managed consistent with the relevant advice provided in applicable safety data sheet (SDS). **Condition M7** requires that SALTAS identify all chemical additives that may come into contact with the hatchery flow-through water and chemical residues that may be found in the effluent as a result. A list of the chemicals and associated residues must be provided to the Director, before these are used at the hatchery. As part of the water quality monitoring, **Condition M3** requires that the hatchery effluent is monitored for the listed chemical residues.

Therapeutants and cleaning chemicals in waste that is applied to land must not be in concentrations that would cause them to pollute or persist in the environment (Condition OPI). Refer to evaluation of Issue 7 for further discussion of therapeutic and cleaning/disinfectant chemicals.

Aquatic communities and ecosystem health

To understand the potential for second-order and third-order interactions between the receiving environment and the effluent, biological monitoring must be undertaken at sites downstream of the hatchery. **Condition M4** is imposed as a standard condition for all inland fish farm related Environmental Licences. Biological monitoring involves sampling and measurement of macroinvertebrates, algae and stream shading as indicators of aquatic ecosystem health.

Biological sampling must be timed to represent an autumn sample and a late spring sample each year to capture seasonal differences in the receiving environment and response to stressors and pollutants from the effluent. The biological monitoring is undertaken in the Florentine River in suitable riffle habitat at approximately 60 metres and 200 metres downstream of the hatchery. The biological monitoring sites are required to align with the water quality monitoring sites.

Stormwater management

During the construction period, the ground works in the settlement pond are likely to disturb the soil, making it prone to erosion. Refer to discussion and evaluation of Issue 8 below.

Conclusion

In addition to the general administrative conditions of the Environmental Licence, to address the environmental issues identified in this assessment, the proponent will be required to comply with the following conditions:

Condition GI	Regulatory limit
Condition G9	Additional requirements for Annual Environmental Review
Condition GI3	Discharge management plan
Condition EFI	Effluent discharge from the fish farm



Condition EF2	Interim effluent limits for discharge to the Florentine River
Condition OPI	Farm therapeutant and chemical use
Condition OP2	Storage and handling of hazardous materials
Condition OP3	Bypass event recording for effluent treatment system
Condition MI	Dealing with samples obtained for monitoring
Condition M2	Drum screen performance monitoring
Condition M3 Florentine River	Water quality monitoring requirements relating to the fish farm activity and
Condition M4	Biological Monitoring of the Florentine River
Condition M5 Catagunya	Ambient monitoring of receiving waters for the Florentine River and the Lake
Condition M6	Geographic references for sampling locations



Issue 2: Natural Values (Flora, fauna and habitat)

Description of potential impacts

The Florentine Hatchery is surrounded by native vegetation, classified as *Eucalyptus obliqua* forest with broad leaf shrubs. The catchment area upstream of the hatchery is production forest managed by Forestry Tasmania, while the catchment downstream is forested land, owned by the Crown. The Florentine River flows beside the hatchery into the Derwent River, which is dammed at this point to form Lake Catagunya, 950 metres downstream from the hatchery.

Lake Catagunya is the largest tributary of the lower Derwent River System. The lake offers the public places for swimming, paddling and/or fishing in aesthetically pleasing waters. The area is also valued for its wildlife (such as platypus, *Ornithorhynchus anatinus*), biodiversity, native riparian vegetation, relatively low levels of disturbance, high water quality and natural river flows. Two listed riparian plant species have been recorded in the vicinity of the hatchery, *Barbarea australis* (Native Wintercress) and Westringia angustifolia (narrow-leaf westringia). The water rat (*Hydromys chrysogaster*) has also been observed near the hatchery. The EER considers that none of these environmental values are threatened by the proposal.

Part 3 of the EER considers that no threatened flora or fauna species were identified as occurring in the immediate vicinity of the Florentine Hatchery. However, the forested environment surrounding the hatchery is identified as highly suitable nesting habitat for the Tasmanian wedge-tailed eagle (Aquila audax fleayi). Eleven raptor nests are located within 5km of the land. The Tasmanian wedge-tailed eagle is listed as endangered under the Environment Protection and Biodiversity Conservation Act 1999 and the Threatened Species Protection Act 1995.

The EER (Section 3.1) indicates that a major threat to Aquila audax fleayi is the loss of nesting habitat and disturbance of nesting birds. Results of a search of the Tasmanian Natural Values Atlas for observations of the wedge-tailed eagle within the vicinity of the Florentine Hatchery showed that the nearest raptor nest is located approximately 1.5km from the proposed operational area at Florentine Hatchery, with another 10 nests within 5km.

PCAB advises that although no known raptor nests were identified within I kilometre of the proposed activity, noise and visual disturbance from the installation and operation of the drum filters could discourage raptors from establishing nests in the surrounding area. This advice needs to be considered in the context of an existing operating facility, which would already have routine activities of this nature occurring on a daily basis.

Tasmanian froglet (*Crinia tasmaniensis*), lesser Tasmanian darner (*Austroaeschna hardyi*), Tasmanian darner (*Austroaeschna tasmanica*), narrowleaf westringia (Westringia angustifolia), and black peppermint (*Eucalyptus amygdalina*) have been recorded within 1km of the land. The common eastern froglet (or brown froglet; *Crinia signifera*) have been recorded at approximately 1.3km.

The only record of a weed species in the vicinity of the land is creeping thistle (*Cirsium arvense var. arvense*), which is located upstream at approximately 2.1km from the land.



Management measures proposed in the EER

The EER (Section 3.7) indicates the nearest wedge-tailed eagle nest is approximately 1.5 km from the hatchery with no direct line-of-sight. The most recent survey, conducted in 2013, noted that the nest was not active. The construction of the drum filter is likely to be undertaken outside of the Tasmanian wedge-tailed eagle breeding season, in the first half of 2019.

The EER also indicates that any noise and visual disturbance associated with the construction of the drum filter infrastructure, is mitigated by extensive areas of highly suitable nesting habitat nearby in the broader region. There is no existing native vegetation within the construction zone area.

To avoid potential impacts on the species, industrial operations should avoid heavy disturbance within 500 metres of a wedge-tailed eagle nest during breading season (FPA 2013). If the eagle is within lineof-sight of the disturbance, the recommended distance is 1 km or more. These distance-based guidelines have been successful in minimizing the effects of forestry disturbance on breeding birds.

Construction to install the drum filters would likely begin after the breeding season for wedge-tailed eagle. In addition to the considerations of potential impacts on eagles, the EER presents a Construction and Environmental Management Plan (CEMP Attachment H), which states:

- Vegetation outside the construction zone will not be disturbed.
- Design and installation of the drum filters will include noise management.
- Levels of vibration cause by construction activities will be minimised and maintained at acceptable levels.

Public and agency comments

The Policy & Conservation Advice Branch (PCAB) of Natural and Cultural Heritage Division of DPIPWE advised that the Tasmanian wedge-tailed eagle is listed as endangered under the Tasmanian *Threatened Species Protection Act 1995* and *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*. PCAB further advises that a number of wedge-tailed eagle nests are recorded within 5 km of the site, but none within 1 km, however this may be due to a lack of survey effort in the area. Habitat modelling suggests that highly suitable nesting habitat exists within 1 km of the site, and therefore appropriate mitigation measures should be applied.

To minimise the likelihood of potential impacts to the wedge-tailed eagles, PCAB recommends that the works be restricted to the period outside of the eagle breeding season, that is, only between February and June (inclusive). Should the proponent deem this timing inappropriate, advice on alternative mitigation options should be sought from PCAB.

PCAB supports the range of weed, soil and sediment management measures proposed in the proponent's Construction and Environmental Management Plan, including:

- All construction machinery will be cleaned prior to entry to and departure from the site, with all soil and botanical matter to be removed in accordance with DPIPWE's Wash Down Guidelines for Weed and Disease Control.
- All spoil stockpiles will be maintained to industry best practice through the use of sediment fences, earth bunds and appropriate soil stabilisation techniques. This includes re-vegetating stockpiles.
- Controls will be installed to manage the movement of clean and contaminated water around the site. This will include the installation of appropriately sized sediment control basins, gross pollutant traps and other erosion and sediment control measures (sediment fencing, filter socks, etc.);



- Fuel and chemicals will be stored in accordance with Australian Standard for the Storage and Handling of Flammable and Combustible Liquids (AS1940:2017).
- During the construction phase a weed management program will be implemented to minimise the spread of weeds.
- Gravel and other fill materials will be sourced from areas considered to be of low Phytophthora risk.

Evaluation

The proposed construction activity will not involve any disturbance of native vegetation, and is not likely to physically impact on protected flora, fauna or communities. Black peppermint (*Eucalyptus amygdalina*) and the Tasmanian froglet (*Crinia tasmaniensis*), both species listed under the *Threatened Species Protection Act 1995* (TSPA) as conservation significant, are present on land title 3386594, northwest of the hatchery. The proposed activity does not present a threat to these species.

Florentine Hatchery is an existing fish farm where the use of heavy machinery and aquaculture equipment is likely to have contributed to previous visual and noise related disturbance of the surrounding environment. For example, the EER indicates that an excavator and/or pumps are routinely used to remove sludge waste from the settlement pond on an annual basis.

According to PCAB, the area surrounding the hatchery is identified as highly suitable nesting habitat for the Tasmanian wedge-tailed eagle. However, the Natural Values Atlas does not identify any raptor nests (listed under the TSPA), within a kilometre of the proposed activity.

To avoid potential impacts on the Tasmanian wedge-tailed eagle, construction activities should be avoided within I kilometre of an eagle's nests during the breading season, especially if an eagle is within line-of-sight of the potentially disturbing activity (FPA 2013). The nearest recorded nest site is approximately 1.5 km from the hatchery, however, there are no recent records of the nest being active.

The guideline distances, presented in the Forest Practices Authority, *Fauna Technical Note No. 1*, were developed to minimize the effects of forestry operations on breeding birds. These operations typically involve both extensive habitat loss and heavy/prolonged disturbance on breeding eagles. The construction associated with this proposal is not considered to be of the same nature, magnitude or duration as a forestry operation, however SALTAS is aware of the guideline and intends to comply with its requirements. Refer to advice from PCAB (above).

If SALTAS intends to undertake any construction activities within the Tasmanian wedge-tailed eagle breeding season from July to February, **Condition FFI** will be imposed to require a survey be undertaken to identify whether any wedge-tailed eagles are currently nesting within I kilometre of the proposal area. If construction will occur during the eagle breeding season, the findings of the survey must be submitted to the Director, before construction is started. The location of any wedge-tailed eagle nests within I kilometre of the proposal area must be reported to the Director.

To shroud the activity from wildlife, particularly the Tasmanian wedge-tailed eagle, and to protect riparian vegetation near the hatchery, it is important that the native vegetation surrounding the hatchery is not disturbed. **Condition FF2** requires that SALTAS restrict its construction activities to install the drum filters to a discrete operational area, as defined in Attachment 2 of the Conditions – Environmental Licence. The operational area is based on Florentine Pond Plan – page I of Appendix B of the EER.

Condition G12 is imposed to cover a broad range of environmental management measures to control the potential environmental impacts of the preparatory ground works for the drum filter.



The environmental management measures relating to flora and fauna and noise control set the objective of minimising any potential impacts on the natural values surrounding the hatchery.

The implementation of a Weed Management Plan to prevent the introduction and spread of weeds is considered appropriate. The implementation of this Plan will be formalised through **Condition CN2** (refer to Issue 6).

Conclusion		
The proponent will be required to comply with the following conditions:		
Condition FFI	Pre-construction surveys	
Condition GI2	Construction and Environmental Management Plan	
Condition CN2	Weed Management	



Issue 3: Odour emissions

Description of potential impacts

The EER (Section 3.5) indicates that the activity could cause dust and odour emissions to the air, which have the potential to affect sensitive receptors, such as recreational users of Lake Catagunya. The EER suggests that the drum filter will remove a substantial proportion of the solid organic matter (sludge, predominantly fish faecal matter) from the wastewater stream. The wastewater stream and the sludge would be the most significant sources of odour resulting from the operation of the drum filter. Dewatered sludge (18 % organic solids) will be separated from the main effluent stream and transferred to enclosed storage tanks located near the drum filters at the hatchery.

Management measures proposed in EER

The EER (Section 3.5.1) indicates that the odorous air emissions are expected to be low or negligible. Solid organic waste (sludge waste) that is generated onsite would be:

- Dewatered;
- Stored in enclosed polyethylene tanks, which will be emptied once full;
- Removed from the site as required; and
- Transported offsite in an enclosed tanker.

The EER describes a sludge collection system that limits opportunity for air emissions. The sludge stream would be pumped to the dewatering plant, which consists of a Lamella plate clarifier (Figure 6) and a series of aerated/agitated storage tanks. Solid waste in the stream will passively settle out, as a concentrated sludge layer in the hopper at the bottom of the plate clarifier system. This sludge layer is then pumped from the hopper and forms a new concentrated sludge, which is stored in polyethylene storage tanks (3 x 25 cubic metres). A buffer tank of 22 kilolitres in capacity is included to capture any overflow. Section 2.1.5 of the EER indicates that approximately 4.8 kilolitres of dewatered sludge will collect each day in the tanks, which will be emptied by an approved waste management contractor, once every 4 days, or as required.

The EER also notes a number of mitigating factors. Employees involved in SALTAS operations have experience from other existing hatcheries (Tassal's Russell Falls and Rookwood facilities), which manage sludge of a similar nature. Staff at these hatcheries reported that odour is only noticeable at distances less than 10 metres from the tank and no obvious odour is emitted from the sludge clarifier. There have also been no complaints from residents close to the other hatcheries in relation to odour.

Sensitive receptors reside in the Wayatinah Village, which is situated on higher ground approximately 6 km to the north of the hatchery. The prevailing conditions and the topography of the surrounding land limits air flow from the activity directly towards residences.

Public and agency comments

One representor raised the issue of potential odour at the waste collection point.

The DPIPWE Air Specialist has advised that the measures/contingencies etc. proposed in section 3.5 of the EER are considered to be appropriate and adequate at the time of the assessment. The *draft Biosolids Management Plan* (referred to on page 44 of the EER) should be completed and presented to the EPA before the upgraded system is commissioned, to demonstrate that the waste stream can be effectively managed and that the proposed waste receiving facilities hold the necessary approvals.



Evaluation

The nearest residence in the Wayatinah Village is approximately 5.2 km away. To minimise the risk of potential impacts to sensitive receptors, sludge waste that is generated by the activity must be contained to an extent that minimises the risk of nuisance odours affecting sensitive receivers beyond the boundary of the land. The sludge must not accumulate to volumes that cannot be managed appropriately to prevent odorous air emissions. Arrangements should be made to have the sludge transported from the land within a week of it being generated. The proposed system of collection, storage and disposal of the sludge waste, and the timing for removal from site, is supported.

The dewatered sludge must be kept in enclosed, leak-proof, durable containers, for example, purpose built polyethylene storage tanks. Aeration by agitation of the tanks will reduce the risk of the sludge becoming anoxic, and avoid releasing odorous emissions to the air. The sludge waste will be removed from the land, as required to sustain the proposed operation and avoid odorous emissions. **Condition WM2** formalises these proposed arrangements.

Sludge Removal

The existing settlement ponds will be upgraded to capture the organic solid waste in the effluent, smaller than 80 microns, after it passes through the drum filters. Accumulations of this sludge must be removed ('desludged') from the bottom of the settlement pond each year. The sludge waste must be contained at all times during transport to the site of disposal, being a facility that has approval to receive the waste (**Condition WM2**).

The development of a *draft Biosolids Management Plan* is supported and is likely to be relevant to complying with **Condition AI**, which requires the implementation of odour management measures, as necessary to prevent odours causing environmental nuisance, and additional notification requirements in the event of an odour complaint.

Condition GII is imposed to require the development of a *Sludge Waste Reuse Management Plan*, which must be implemented within 3 months of the Environmental Licence taking effect. The main purpose of this document is to ensure sludge waste is managed consistent with the *Tasmanian Biosolids Reuse Guidelines (DPIWE, August 1999)*. For the purposes of odour management, this plan should refer to relevant aspects of the *draft Biosolids Management Plan* (referred to in 3.5.1 of the EER). The plan should be consistent with Condition WM2 with respect to the arrangements for storage and removal of sludge waste (as indicated in the EER) and contingent odour mitigation options to ensure compliance with **Condition AI**.

The EER indicates that the sludge waste would be transported to the Jenkins Composting Facility at Plenty by approved contractors, Spectran Group Pty Ltd. The sludge waste is similar to biosolids produced by wastewater treatment plants, and there is an existing waste sector that routinely processes this type of waste. Typically sludge wastes are spread on suitable land or composted for beneficial re-use. Waste sludge is also generated at other SALTAS sites by existing recirculating aquaculture systems. However, no information is presented in the EER to demonstrate that the Jenkins Composting Facility has the approval or capacity to receive the waste. Given the solids produced by the hatcheries are intended for beneficial reuse, the sludge waste must be analysed to confirm it is suitable for the purpose (**Condition GII**).

SALTAS commitment to finalise its *Freshwater Hatcheries Wastewater Solids Management Plan* is also supported, however any plan relating to the management of sludge waste should be consistent with **Conditions GII**, **WM2** and **AI**. The standard **Condition GI0** is imposed to ensure any complaints are recorded.



Conclusion

The proponent will be required to comply with the following conditions:

Condition WM2	Management and disposal of sludge waste
Condition AI	Odour Management
Condition GII	Sludge Waste Reuse Management Plan
Condition GI0	Complaints register

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Issue 4: Noise emissions

Description of potential impacts

Noise emissions from the activity have the potential to cause environmental nuisance. During construction, noise emissions are expected from the mobile crane operations, diesel generator, air compressor, use of heavy machinery for rock removal, earth moving equipment, vehicle loading and other on site vehicle movements. The use of a rock breaker is expected to generate the highest noise levels during the construction period, with a "worst-case" sound pressure level of 90 dBA at 10 metres.

The EER states the nearest residences are located at approximately 6 km to the north. During the EPA site inspection (March 2018) it was noted that the Florentine Hatchery is surrounded by native forest and is isolated from residences and known areas of public amenity.

Noise sources associated with the proposed drum filters include the drum spray bars, sludge pump and water pump, with the spray bar being the dominant source of noise. The sludge waste removal system includes the clarifier blowers and diffuser systems and screw press, with the blowers and diffusers being the dominant noise sources. Although these noise sources operate continuously, they are not associated with a sound power level that is likely to be audible at the nearest sensitive receptor.

Management measures proposed in the EER

The EER (Appendix F) suggests that if construction work noise observed at the Wayatinah Village is found to be higher than 55 dBA, noise mitigation measures would be implemented. The EER (Section 3.7) indicates that the dominant noise emissions generated by construction activities are mitigated by:

- The short duration of the excavation works (approximately 3 weeks).
- Attenuation over a distance of ~6 km due to sound energy absorption by the atmosphere and a substantial vegetation screen.
- Implementation of the Construction and Environmental Management Plan (CEMP Attachment G) which presents:
 - Restrictions on day and time of construction work hours to 7 am to 7 pm from Monday to Friday and 8 am to 5 pm on Saturdays;
 - Use of noise and vibration control equipment, e.g. mufflers, acoustic enclosures etc.; and
 - Maintenance, modification or removal of equipment, if noise levels are excessive.

Public and agency comments

The Noise Specialists advised that a similar drum filter (500 litres per second capacity) observed at the Russel Falls Hatchery, does not emit noise at levels that are likely to cause excessive noise beyond the boundary of the land. The Noise Specialist did not anticipate any problems with extended hours of operation for this activity, including during the construction period.

Evaluation

The proponent is required to comply with permit **Condition CNI**, which relates to operating hours during the construction period.

This condition provides some surety that construction noise is unlikely to affect residences in Wayatinah. The condition would formalise the restriction of construction work to daytime hours, however, would alter the standard operational hours on Saturday. The standard operational hours are 7 am to 6 pm Monday to Friday, 8 am to 4 pm on Saturdays and not on Sundays or public holidays. **Condition CNI** is slightly more lenient as it allows extended operational hours to 5 pm on Saturdays. The management measures proposed to minimise the risk of noise nuisance are considered appropriate and supported.

The potential for noise to impact on wildlife, such as the Tasmanian wedge-tailed eagle, has been considered (Refer to Issue 2).

SALTAS must comply with the standard **Condition G12**, which requires that the Construction and Environmental Management Plan (CEMP Attachment G) be implemented for construction activities. The objectives of the Plan include:

- Setting requirements for noise management during construction as part of the design and procurement activities.
- Ensuring that levels of vibration from construction activities are acceptable.

The Plan cites mitigation actions such as:

- Additional noise reduction measures.
- Restricted operational hours for construction equipment and vehicles.
- Consultation with nearby residences.
- Any noise complaints to be addressed by implementing remedial measures.
- Noise monitoring during construction phase to check compliance.

The general management measures outlined in the CEMP apply to the construction activities and are considered appropriate for avoiding excessive noise emissions during the construction period. The CEMP also outlines an agenda for construction activities that avoids and minimise various other environmental issues, including erosion of soils, contamination of surface water and waterways, noise nuisance, dust, hazardous materials, flora, fauna, weeds, pests and pathogens (refer to other issues).

The standard **Condition GI0** is imposed to ensure any complaints relation to noise are recorded.

Conclusion

The proponent will be required to comply with the following conditions:

Condition CNI Operating hours – Construction



Issue 5: Solid waste

Description of potential impacts

Any servicing of machinery on the land may produce solid and liquid wastes, such as oil, oil filters, used tyres etc.

The drum filter is part of the sludge waste treatment system (Figure 5), which will routinely produce solid organic waste (sludge) at a rate of approximately 4.8 kilolitres per day. The risks associated with sludge waste derived from the drum filters relate to biosecurity and odorous emissions beyond the boundary of the land (Air Environment Protection Policy). Refer also to discussion on Issue 3 and Issue 6.

A lack of capacity to manage the sludge waste would present a risk of generating odorous emissions that could cause environmental nuisance beyond the boundary of the land (refer also to Issue 3).

Large volumes of sludge waste could also become a source of leachate with a high nutrient and BOD load. As the sludge is likely to contain fish tissue and meal, it may also carry pests and pathogens, including parasites, and is classified as a Restricted Animal Material (RAM), within the meaning of the Animal Health Regulations 2016 (discussed further in Issue 6).

Management measures proposed in the EER

Drum Filters

The EER (Section 2.1.2) indicates, the proposed drum filter would remove solid particles from the hatchery effluent by passing it through a fine meshed filter with aperture size of $80\mu m$. The filter mesh is attached to a rotating mechanical drum, which rotates at a predefined speed to optimise the capture of sludge waste. As the solid particles (> $80\mu m$) build up on the filter panels a sludge cake layer is formed, which is washed off the screen by a backwash spray bar into an internal trough. A transfer pump delivers the backwashed wastewater stream to a dewatering plant, consisting of a Lamella plate clarifier (Figure 6) and a series of agitated storage tanks.

The dewatering plant facilitates:

- Passive settlement of solid particulates from the backwashed waste stream, thereby concentrating the sludge to a higher percentage of solid content.
- Return of clarified wastewater returned to the drum filter inlet.
- Formation of a sludge cake layer at the bottom of the hopper.
- Isolation of a concentrated waste sludge stream, which can be pumped to aerated/agitated storage tanks.

4.8 kilolitres per day of sludge would be generated and transferred to the storage tank. Once settled into a concentrated mass, the water is decanted off the top, leaving a sludge waste of approximately 18 percent solids. The volume of waste sludge that is removed from the wastewater stream is dependent on biomass and feeding rates of the fish and is estimated to be 149 kilograms per day of solid organic material (dry weight).

The storage tanks will be pumped out by an approved sludge removal contractor.

Each of two drum filters has been designed to accommodate a 100% flow rate, to be able to manage any cases of a drum filter malfunction or required maintenance. Scheduled maintenance of the drum filters would occur outside of peak biomass periods at the hatchery.



Public and agency comments

One representor was concerned that the anticipated organic waste (24.8 wet tonnes per month) is an average (mean) figure, which may be exceeded in the seasons with the highest biomass. The representor questioned who would regulate this waste.

Evaluation

The management measures outlined in the EER (Section 2.1.5) are supported. The draft *Tassal Freshwater Hatcheries Wastewater Solids Management Plan*, referred to in the EER, should be replaced by a Sludge Waste Reuse Management Plan. This plan must be developed specifically for the Florentine hatchery and should document all arrangements relating to the management of sludge waste, as required by all relevant conditions of the Environmental Licence. The management of organic solids must comply with **Conditions GII**, **WMI** and **WM2**. The plan should include, but not be limited to:

- Annual removal of the sludge that accumulates in the settlement pond
- Dewatering of the sludge waste
- Enclosure and containment of the sludge waste during onsite storage and transport
- Regular removal of sludge waste by authorised persons to an approved site (and associated authorisations)
- Treatment of sludge waste as Restricted Animal Material (RAM)
- Any biosecurity measures required by the Inland Fisheries Act 1995

Condition WM2 (described for Issue 3) formalises the requirements for the management and disposal of sludge waste. Sludge waste must be appropriately contained, irrespective of the volume, to prevent odours becoming a nuisance beyond the boundary of the land and the potential for leachate to contaminate surface and groundwater. The EER (Appendix A) indicates that 3 polyethylene storage tanks, each with a capacity of 25 cubic meters, will be installed. These tanks must be designed to contain liquid and restrict air emissions. The number and volume of the tanks indicates there should be excess storage capacity during normal operations. Sludge waste must not be disposed on the land or allowed to accumulate on site, other than in the dedicated storage tanks. Organic waste should also be managed and disposed of consistent with the management measures referred to in 3.5.1 of the EER.

Condition GII (described for Issue 3) is imposed to require the development of a Sludge Waste Reuse Management Plan. This document must be developed consistent with the *Tasmanian Biosolids Reuse Guidelines* (*DPIWE August 1999*) and **Condition WM2**. These guidelines were written for operators of municipal wastewater treatment plants, however, the principles within the document can be applied to the management and beneficial reuse of drum filter sludge waste, with respect to best environmental management practices for characterising, treating, biosecurity, application, monitoring and record keeping.

The SALTAS Commitment 4 to finalise its Freshwater Hatcheries Wastewater Solids Management Plan and obtain the appropriate transport and disposal approvals before commissioning the drum filters, is supported. However, this plan has not been reviewed by the EPA Board and any plan for the management of the sludge waste should be consistent with **Condition WM2** and **GII**.

The sludge waste must be disposed of to a facility that has approval to receive the waste. Evidence of this will be sought in EPA Tasmania compliance auditing or the by the regulatory authority for the waste approval.



All waste generated on site must be managed in accordance with the Environmental Management and Pollution Control (Waste Management) Regulations 2010.

Standard Other Information, **Condition OII**, relates to appropriate management of general solid and liquid waste that may be generated by the maintenance of equipment and infrastructure.

Conclusion		
The proponent will be required to comply with the following conditions:		
Condition WMI	Management of Wastes Containing Restricted Animal Material	
Condition GII	Sludge Waste Reuse Management plan	
Condition OII	Waste management hierarchy	



Issue 6: Weeds, pests, pathogens and biosecurity

Description of potential impacts

The wastewater and sludge waste generated by the activity presents a potential biosecurity risk to aquaculture downstream.

The movement of machinery and equipment to and from the Land, for the proposed construction activities, could translocate weeds and pathogens onto the land or from the land into other areas of the State.

Management measures proposed in EER

The EER (Section 3.2) indicates that during the construction period, weed management measures to be implemented will include:

- Sourcing gravel and fill from areas considered low risk of importing phytophthora to site.
- Excluding weed material from vegetation to be mulched.
- Cleaning all construction machinery prior to entering and exiting the site in accordance with the Wash Down Guidelines for Weed and Disease Control Edition 1 (DPIPWE, 2004).

The Florentine Hatchery implements existing internal policies to ensure biosecurity is managed effectively including:

- ENV-001 Waste Management Policy
- ENV-002 Biosolids Management Policy
- WHS-022 Biosecurity Visitor Policy
- WHS-023 Biosecurity Staff Policy

The sludge waste generated from the drum filter will be managed in accordance with the draft *Tassal Freshwater Hatcheries Wastewater Solids Management Plan.* The biosecurity controls requirement outlined in the Plan are listed below:

- Sludge storage tank and buffer tank to be enclosed.
- Sludge storage tank to be inspected on a weekly basis and maintained to be fit for purpose.
- Sludge to be removed by authorised contractor an every 4 days.
- Sludge will be transported in an enclosed tanker.
- Waste transport contractor required to implement a truck wash-down procedure for all vehicles before to entering the hatchery site.
- Waste transport contractor required to carry adequate spill prevention and implement control procedure as required.

Public and agency comments

PCAB noted and supports the proposed implementation of a weed management program to minimise the spread of weeds. PCAB also noted and supports management controls relating to the sourcing of gravel and other fill materials from areas considered to be low phytophthora risk.



Evaluation

The sludge waste, generated by the operation proposed drum filters, contains 'restricted animal material' (RAM). RAM is defined as any material taken from a vertebrate animal other than tallow, gelatine, milk products or oils. In this case, the RAM is any waste containing fish tissue or fishmeal, including fish farm sludge waste. In accordance with the Tasmanian *Animal Health Act 1995* and *Animal Health Regulations 2006*, ruminant stock must be prevented from accessing land where salmon-derived RAM has been disposed. Where the RAM has been land spread, a minimum withholding period of 21 days applies to the area (**Condition WMI**).

The management measures outlined in the EER (Section 2.1.5) are supported for the purposes of general biosecurity. The implementation of the proposed management of organic solids will be formalised through **Conditions GII**, **WMI** and **WM2** (Refer to evaluation of Issue 6)

Condition WMI requires that all wastes containing fish, including sludge waste, must be treated as Restricted Animal Material (RAM). Ruminant stock must not be allowed to access RAM.

Condition G5 is a standard condition that is imposed on all Environmental Licences to require that EPA Tasmania be made aware of any significant deaths of salmonid stock at the hatchery. EPA Tasmania would involve other relevant authorities in the event of a biosecurity incident.

This inclusion of the conditions above are appropriate for reasons that, while the drum filters do not necessarily alter any biosecurity risks with respect to the Florentine Hatchery, the change in the activity may alter the number and characteristics of vectors for translocation of pests and pathogens.

Three species of weed *Genista monspessulana* (montpellier broom), *Rubus fruticosus* (blackberry) and *Cirsium arvense var. arvense* (creeping thistle) have been recorded along the road reserve that provides access to the land. Noting Commitment I within the EER and SALTAS intention to establish an ongoing weed management program, the implementation of a Weed Management Plan to prevent the introduction and spread of weeds is considered appropriate. Commitment I that outlines the cleaning of construction machinery in accordance with the DPIPWE *Wash Down Guidelines for Weed and Disease Control* before entry to the site is supported. Implementation of the Plan and relevant measures in the EER will be formalised through the standard, outcome based weed management condition (**Condition CN2**), requiring that weeds not be spread by the movement of construction vehicles and equipment to other locations, and the land be kept free of weeds, ongoing.

The provisioning of wildlife should be avoided and pest control should be designed to avoid potential impacts on native fauna. No condition was deemed necessary, because the solid waste derived from the drum filter will be kept sufficiently contained and not accessible to pests and native wildlife.

Conclusion	Conclusion					
The proponent will	be required to comply with the following conditions:					
Condition WMI	Condition WMI Management of Wastes Containing Restricted Animal Material					
Condition G5	Notification of fish or ova mortality					
Condition CN2 Weed management						
Issue 7: Enviror	nmentally hazardous substances					

Description of potential impacts

Inappropriate management of chemical waste and other environmentally hazardous materials has the potential to contaminate land and water. The DPEMP indicates that a wide range of chemicals is used



at the Florentine Hatchery. These include fuels (petrol/diesel) and chemicals used in aquaculture for adjusting water chemistry, cleaning and disinfection.

Therapeutic substances and cleaning chemicals, in particular, will not be removed by the drum filter screens and present a risk to surface water quality, as discussed under Issue I.

Management measures proposed in the EER

Refer to the EER Section 3.3.4 and 3.10, which indicate that the following measures will be employed to facilitate the appropriate management of environmentally hazardous materials.

- Use of all chemical agents in accordance with manufacturer's guidelines.
- Containment and disposal procedures consistent with the standards advised in the relevant safety data sheet.
- Spill controls and clean up kits to be kept on site.
- Construction personnel trained to transfer fuels and manage spill clean-up.
- All hazardous substances to be managed in accordance with Australian Standard (AS 1940:2017) Storage and Handling of Flammable and Combustible Liquids.

Public and agency comments

One representor was concerned about the use of therapeutic treatments and the potential for these substances to be released to nearby waterways.

The Water Specialists advised that, therapeutic chemicals must not be allowed to enter waterways (for details, refer to the Water Specialist's comments under Issue I).

Evaluation

Small amounts of Environmentally Hazardous Materials, such as unleaded petrol/diesel and cleaning chemicals can be used and stored on site during the operation of the hatchery and drum filters. To facilitate appropriate management, **Condition OP2** requires that all environmentally hazardous materials to be held on the Land, must be kept within containment systems, such as impervious bunded areas or spill trays. Discharge, emission or deposition of any environmentally hazardous materials must be prevented.

Therapeutants, disinfectants, cleaning chemicals and residues of these substances must be contained to prevent pollutants reaching any surface waters or groundwater (**Condition OPI**). The proposed drum filter and supporting infrastructure is not designed to treat waters contaminated with these types of chemicals. Refer also to the evaluation section of Issue 1.

The EER (Table 15), for example, indicates that Chloramine T and Virkon[®] Aquatic are chemical agents used at the hatchery. Chloramine T is an algaecide that is known to be toxic to fish and other organisms. It is otherwise known as N-Chloro-p-toluenesulfonamide, sodium salt or Tosylchloramide sodium. The product and residues of it must be contained to prevent pollutants reaching any surface waters or groundwater. The substance presents a risk to drinking water.

Virkon[®] Aquatic (version 3) is an industrial disinfectant that is known to be harmful to aquatic life with long-term adverse effects in aquatic environments. It is comprised of pentapotassium bis(peroxymonosulphate) bis(sulphate), sodium C10-13-alkylbenzenesulfonate, malic acid, sulphamidic acid, sodium toluenesulphonate, dipotassium peroxodisulphate. It can decompose to form sulphur dioxide and chlorine.



Correct handling, storage and containment systems are considered to be sufficient to manage the use of these substances and minimise the risk of them being released to surface waters or groundwater.

Conclusion

Condition OPI and Condition OP2 are imposed under Issue I



Issue 8: Stormwater, sediment and run-off

Description of potential impacts

The proposed construction may expose soil surfaces, making these areas vulnerable to erosion and sediment loss during rainfall events. Construction involves excavation of 15 cubic metres of material for installation of the drum filter and effluent diversion pipework. Sediment carried in surface runoff has the potential to reduce the water quality of the receiving waterway (Florentine River and Lake Catagunya).

Management measures proposed in the EER

The EER (Section 3.3.5) indicates that the proposed construction works will not affect the existing stormwater drainage systems in the surrounding area. All ground disturbed by construction will be stabilised. To prevent erosion of the new finished surfaces, drains will be installed to direct stormwater to the settlement ponds.

The Construction and Environmental Management Plan (Appendix G) describes the following management measures:

- Protection of spoil stockpiles, using sediment fences, earth bunds and appropriate soil stabilisation techniques.
- Establishment of appropriately sized sediment control basins, use of gross pollutant traps.
- Contaminated water to be removed from the site to an approved treatment facility.
- Regularly monitoring and maintenance of the stormwater management infrastructure.

Public and agency comments

None

Evaluation

During the construction period, the ground works in the settlement pond are likely to disturb the soil, making it prone to erosion. The implementation of the Construction and Environmental Management Plan (**Condition G12** – refer also to Issue 2) comprises several appropriate management measures to minimise the risk of soil erosion and sedimentation caused by stormwater transporting it to other areas. The CEMP **Condition G12** is a standard condition, which covers a broad range of other environmental management measures to avoid and minimise potential impacts of the preparatory ground works. The broad objectives and management measures outlined in the SALTAS draft CEMP are supported for stormwater management. SALTAS has committed its construction contractors to implementation of this plan, including undertaking training as specified in the CEMP. However, a greater level of detail, with respect to avoiding surface water contamination should be incorporated into standard operating procedures for effective implementation of the CEMP.

Stormwater that collects on other areas of the land must be directed towards natural drainage lines and away from the construction works, so as to minimise the flow of stormwater into areas of disturbed sediment or contaminated areas (construction zone).

Condition CN3 is imposed to require that management measures are implemented to prevent stormwater from entering the construction zone.



Any sediment transported in stormwater run-off must be retained on the land to help prevent contamination of the receiving waterway (Condition CN4). SALTAS proposed use of sediment control basins, traps, fences and bunds to control stormwater is supported. After construction has been completed and the land has been stabilised, existing surface drains around the drum filter structure can be used to direct clean stormwater to the settlement pond. This proposed management measure is important to ensure ongoing prevention of erosion and to reduce the volume of water that may become contaminated by traversing other parts of the site.

Conclusion

The proponent will be required to comply with the following conditions

- **CN3** Stormwater to be excluded
- **CN4** Retention of sediment



7 Other Issues

The following issues have been raised during the assessment process and are mentioned below. These are issues that are not the Board's responsibility under the EMPC Act, or issues that are more appropriately addressed by another regulatory agency.

I. Health and safety

Operation of a drum filter may present hazards from a health and safety perspective. These may relate to the mechanics of the infrastructure, the nature of the biological waste generated by the activity, or pollutants that are not removed by the system. These issues are overseen by the Tasmanian Department of Health and Human Services, which administers the *Public Health Act 1997*, and WorkSafe Tasmania, under the *Work Health and Safety Act 2012*.

2. Biosecurity management plan

While weeds, pests, pathogens and biosecurity have been considered under Issue 6 (above), a biosecurity management plan has not been required for this Environmental Licence. The management measures specified under Issue 6 relate to the proposed drum filters and are not intended to address all biosecurity risks associated with the hatchery and its operation. The Tasmanian Inland Fisheries Service administers the *Inland Fisheries Act1995*, and if required, a Fish Farm Management Plan could be developed for the broader hatchery operation.

3. Water allocation

The broader hatchery operation relies on an influent water flow of between 600 and 900 litres per second. This allocation of water is via a non-consumptive annual water licence of 25,550 ML for the purposes of aquaculture. The water licence is administered by DPIPWE with an assumed on-ground management within a hydro water district by Hydro Tasmania.



8 **Report Conclusions**

This assessment has been based on the information provided by the proponent, SALTAS, in the permit application and the case for assessment (the EER).

This report incorporates specialist advice provided by EPA Tasmania scientific specialists and regulatory staff, other Divisions of DPIPWE and other government agencies, and has considered issues raised in public submissions.

It is concluded that:

- 1. the RMPS and EMPCS objectives have been duly and properly pursued in the assessment of the proposal;
- 2. the assessment of the proposed activity has been undertaken in accordance with the Environmental Impact Assessment Principles of the EMPC Act.; and
- 3. the proposed activity is capable of being managed in an environmentally acceptable manner such that it is unlikely that the objectives of the EMPC Act (the RMPS and EMPCS objectives) would be compromised, provided that the environmental licence appended to this report is issued and served and its requirements are duly complied with.

The environmental conditions appended to this report are a new set of operating conditions for the entire, activity that will supersede the existing Environmental Licence for the SALTAS Florentine Hatchery.

It is likely that amendments will be made to the conditions of the Environmental Licence in the future to ensure that the set of Environmental Licence conditions are complete and sufficient for the ongoing, broader hatchery activities.



9 Report Approval

Environmental Assessment Report and conclusions, including environmental conditions, adopted;

Warren Jones CHAIRPERSON BOARD OF THE ENVIRONMENT PROTECTION AUTHORITY

Meeting date: 5th February 2019



10 References

- 1. Derwent Estuary Program; River Derwent and Catchment Tributary Water Quality Report. Hobart, Tasmania (dated July 2018).
- 2. Department of Primary Industries, Water and Environment; *Environmental Management Goals* for the Tasmanian Waters, Derwent River Catchment (dated April 2003).
- 3. Environment Protection Authority, Tasmania; State Policy on Water Quality Management 1997. Hobart, Tasmania.
- 4. Forest Practices Authority; Fauna Technical Note No. 1 Eagle nest searching, activity checking and nest management Page (dated May 2015, Version 2.9).
- 5. Government of Tasmania, Services Tasmania; Land Information Services Tasmania (ListMap) https://maps.thelist.tas.gov.au/listmap/app/list/map
- 6. Department of Primary Industries, Parks, Water and Environment, Natural and Cultural Heritage Division; Natural Values Atlas Version 3.7.0; (Website: https://www.naturalvaluesatlas.tas.gov.au/ - accessed January 2019)
- 7. Salmon Enterprises of Tasmania Pty Ltd (SALTAS) Florentine Hatchery, Construction and Operation of Drum Filter Environmental Effects Report (dated October 2018).



II Appendices

- Appendix I Summary of public and agency submissions
- Appendix 2 Environmental Licence Conditions No. 9840/2
- Appendix 3 SALTAS Table of Commitments



Appendix I – Summary of public representations and agency submissions

Salmon Enterprises of Tasmania Pty Ltd - Drum Filter Project Florentine Hatchery, Wayatinah

In the following table, EER means the document titled Saltas Enterprises of Tasmania Florentine Hatchery, Construction & Operation of drum Filters, Environmental Effects Report, October 2018.

TABLE 1: MATTERS RAISED DURING THE PUBLIC CONSULTATION PERIOD

Representation No./ Agency	EER section no.	EER Page no.	Comments and issues	Further Info requested	EPA comment
Christine Coughanowr			Both hatcheries will continue to discharge significant loads of dissolved nutrients, particularly during summer and autumn, when water levels are low and risks are highest.	No	The proposal represents improvement to an existing activity. There is an expected reduction in dissolved nutrient loading overall due to removal of nutrients derived from the decomposition of organic solids.
			There are a number of downstream drinking water supplies, including at Meadowbank and Bryn Estyn. Nutrients can stimulate algal blooms in downstream lakes, reservoirs and estuaries. These blooms can include both nuisance blooms as well as toxic and taste/odour producing algae, such as those that have previously affected the Hobart water supply.	No	The Meadowbank and Bryn Estyn offtakes are located more than 15 km downstream from the hatchery. Any influence of the hatchery on the water quality of these off-takes could not be differentiated from other sources.
			Concerned with the proposed discharge of effluent directly to the downstream waterways during the 5-month construction/commissioning period, during the period of highest smolt biomass and during summer/autumn months. The option of reducing biomass during the construction period needs to be considered.	No	The improvement to an existing activity will be undertaken at a time that is workable and accounts for other environmental factors that may be affected by the proposed construction activities.
			The upper Derwent catchment, having exceptional water quality and significant natural values and recreational	No	The drum screens will not remove any dissolved nutrients from the effluent



	activities. Both hatcheries require a more comprehensive strategy that addresses both solids and nutrients.		stream but there is an expected reduction in dissolved nutrient loading overall.
	Further detail is needed as to how and when both of these hatcheries will be brought up to Accepted Modern Technology (AMT) standards. Alternatively, relocation to more suitable sites should be considered.	No	The proposal represents improvement to an existing activity. A monitoring program will be a condition of the permit, and will be used to inform strategies for further improvement of the activity's environmental performance.
Christine Coughanowr	What quantity and proportion of solid waste and particulate/dissolved nutrients will be removed?	No	The proposal represents improvement to an existing activity. This information will be obtained after commissioning, with options for further improvements.
	There is much better baseline data available, which was collected as part of the Derwent Estuary Program's Derwent Catchment Monitoring Program. This data should be used as the basis for setting water quality targets for both hatcheries.	No	Noted. It is considered that the collective dataset of existing and future data and other datasets such as those collected under the DEP will provide a more comprehensive basis on which to set future water quality targets.
	What is the source of the data used to generate the 'Upper Derwent Water Quality Guidelines', and how were these derived? These may not be suitable - particularly for the Florentine, which is somewhat unusual in the Derwent system, with relatively high conductivity and nitrate-nitrite levels, associated with the upstream dolomite geology.	No	SALTAS used its own water quality monitoring data, which it collected from upstream and downstream of the Wayatinah and Florentine Hatcheries, and at each hatchery, since May 2015. The EER was also informed by similar data gathered by EPA Tasmania from January to June 2017.
	What quantities of therapeutic treatments are used and when? Which of these therapeutics are used in the flow through systems, and how much enters receiving waters?	No	Permit conditions will be used to regulate the use of therapeutic treatments.



			The ASC-required BFEIA and the biannual macroinvertebrate survey results should be provided to better document conditions upstream and downstream of the hatcheries. Do they include summer/autumn low flow conditions, when biomass levels at the hatcheries are highest?	No	Biannual (autumn and late spring) macroinvertebrate monitoring is a condition of the Environmental Licence, which will be reported to EPA Tasmania. A summary of this information will be available to the public in the Annual Environmental Review document.
Derwent Estuary Program	2.1.1	7	Drum filters do not remove dissolved nutrients. Additional treatment would be required to remove dissolved nutrients. How effective are drum filters in removing solids? Downstream monitoring?	No	The proposal represents improvement to an existing activity. This information will be obtained after commissioning, with a view to better environmental outcomes through continual improvements.
	2.1.2	12	How effective are drum filters in removing solids?	No	Comment above applies
	2.1.2	12	Is the current settlement pond better than nothing for the duration of drum filter construction?	No	EPA monitoring in 2017 found that the effluent deteriorated or remained unchanged by passing through the ponds.
	2.1.2	12	The additional diversion infrastructure will be used for maintenance and emergencies? How often could that happen and will these events be reported to EPA / made public?	No	A condition of the Environmental Licence requires SALTAS to record the detail of each bypass event. A summary of this information will be available to the public in the Annual Environmental Review document.
	2.1.2	12	What are the potential impacts of installing the system as soon as possible verses construction during low biomass season and/or high river flow rate season?	No	Installing the screens sooner is better considering the current performance of the existing settlement ponds.
	2.1.5	14- 15	How often will concentrations of dissolved nutrients be monitored to verify that the water from the plate clarifier does not increased concentrations of dissolved nutrients when it is returned to the drum filter inlet? Could anoxic conditions develop at any stage during this process, which	No	Monitoring during commissioning will be required to verify the volumes and concentrations and any anoxia issues will be conditioned in the licence. Management controls are presented in the EER, including the option for



			could potentially increase dissolved concentrations of nutrients?		diversion to a storage tank for off-site disposal.
		15- 16	The anticipated waste could be greater than average during high biomass season. Who will regulate the removal of the waste?	No	The licence will be conditioned to require that the sludge is disposed of to a facility that has approval to receive the waste. Evidence of this will be sought in compliance auditing by the regulatory authority for the waste approval.
3.3.1.		34	The upper value of the detection limit was used when parameters fell below detection limit. The background concentrations are overestimated, therefore, this is an issue for calculating nutrient mass loads from the hatchery. If background values fall below the limit of detection (LOD), how can the natural nutrient levels be assessed?	No	EPA Tasmania will conduct a review of the raw data using the EPA data protocol, which is to halve values below the limit of reporting when it is deemed that best practice analytical methods have been used to reduce the LOD as much as reasonably practicable.
	3.3.2.2	41- 43	Who will review the interim effluent quality limits?	No	The limits will be reviewed by EPA Tasmania after commissioning and operation for 12 months, and where appropriate, will be lowered.
Derwent Estuary Program	3.3.5	43	Where does the sludge waste go and who will inspect this?	No	EPA Tasmania will ensure regulatory compliance against Environmental Licence conditions.
	3.14	49- 50	Sufficiency of the future monitoring program? Will future monitoring results be reported to EPA and/or available to public?	No	Permit conditions will be used to regulate monitoring of the activity and its impacts. Results of the monitoring program will be available to EPA Tasmania
Environment Tasmania			The proposals are inadequate to address the full extent of the current pollution loads into the respective catchments. Only a best practice solution should be considered.	No	The proposal represents improvement to an existing activity. Additional information will accumulate through a future monitoring program that will be a



			condition of the Environmental Licence, and will be used to inform strategies for further improvement of the activity's environmental performance.
	The proposal does not remove the dissolved nutrients from the water. Given the importance of these water catchments the process is not fit for purpose and not best practice. Alternative solutions are available.	No	Comment above applies
	Both hatcheries will continue to discharge significant loads of dissolved nutrients into the waterways, with continuing likely impacts. Discharge of pollutants to waterways can cause algal blooms and pose a significant ongoing risk to the health of the waterways.	No	Comment above applies
	Costs of lesser quality filtration systems may be outweighed by costs incurred by downstream users.	No	Comment above applies



Appendix 2 – Permit conditions – Environmental licence No. 9840/2



Number	Phase of	Commitment	Timeframe
	activity		
1	Construction	A Construction Safety and Environmental	Completed
	phase	Management Plan (CEMP)will be implemented, appropriate to the construction complexity and risks	(Appendix F)
2		Training of the management requirements contained in the CEMP will be provided to contractors prior to commencement of construction	Before construction
3		Development and implementation of a weekly inspection checklist of the CEMP	On-going
4	Operation phase	Finalise the draft <i>Tassal Freshwater Hatcheries</i> <i>Wastewater Solids Management Plan</i> including obtaining the appropriate transport and disposal approvals	Before commissioning
5		Undertake fortnightly water quality sampling as per parameters outlined in Table 16 and at the locations outlined in Figure 11.	Ongoing
6		Undertake a short-term intensive monitoring of effluent discharge for periods of 24-48 hours is proposed to be undertaken on a quarterly rotation over a period of 18 months to assess the degree of diurnal and seasonal variability in water quality parameters	Ongoing

Appendix 3 – SALTAS Table of Commitments (Based on Table 17 of the EER)



Environmental Assessment Report – Salmon Enterprises of Tasmania Pty. Limited – Drum Filter Project, Florentine Appendix 3





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Attachments

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Attachment 2: The Operational Area (modified: 18/01/2019 17:23)	1 page

Schedule 1: Definitions

90th percentile means the value at which the relevant parameter is exceeded by no more than 10 percent of all sample results over a twelve month period.

Activity means any environmentally relevant activity (as defined in Section 3 of EMPCA) to which this document relates, and includes more than one such activity.

Chemical additives means a chemical substance that is used for the purpose of the activity.

Chemical residue Chemical residue means the trace of a chemical or its breakdown product, which remains present over time.

Construction means activities associated with the construction phase of the activity, including but not limited to, activities associated with the clearance of vegetation, site works to create a level site, rock breaking, installation of fences and other infrastructure whether on land or in water.

Construction and Environmental Management Plan means the document titled Saltas Drum Filter Project Construction and Environmental Management Plan, Revision A, dated 22 December 2017

Controlled Waste has the meaning described in Section 3(1) of EMPCA.

Director means the Director, Environment Protection Authority holding office under Section 18 of EMPCA and includes a person authorised in writing by the Director to exercise a power or function on the Director's behalf.

DRP means Decommissioning and Rehabilitation Plan.

Drum filter means the rotating screen located on The Land (as shown in Appendix 1) for separating sludge waste from the fish farm wastewater, and further defined as the wastewater treatment step that separates coarse organic solids from the wastewater, immediately prior to its discharge to the settlement pond.

Drum filter bypass means the discharge of untreated or partially treated effluent most commonly as a result of drum filter component failure or increased inflows to the drum filter system as a result of high rainfall.

Eagle breeding season means during the months, July, August, September, October, November, December, January and February (excludes the months, March, April, May and June).

Effluent means wastewater discharged from The Land.

EMPCA means the Environmental Management and Pollution Control Act 1994.

Environmental Harm and **Material Environmental Harm** and **Serious Environmental Harm** each have the meanings ascribed to them in Section 5 of EMPCA.

Environmental Nuisance and **Pollutant** each have the meanings ascribed to them in Section 3 of EMPCA.

Environmentally Hazardous Material means any substance or mixture of substances of a nature or held in quantities which present a reasonably foreseeable risk of causing serious or material environmental harm if released to the environment and includes fuels, oils, waste and chemicals but excludes sludge waste and sewage.

Median means the value at which the relevant parameter is exceeded by no more than 50 percent of all sample results over a 12 month period.

Person Responsible is any person who is or was responsible for the environmentally relevant activity to which this document relates and includes the officers, employees, contractors, joint venture partners and agents of that person, and includes a body corporate.

Reporting Period means the financial year.

Sludge waste solid organic waste that is derived from the fish farm activity and collected by the drum filter.

Stormwater means water traversing the surface of The Land as a result of rainfall.

Tasmanian Noise Measurement Procedures Manual means the document titled *Noise Measurement Procedures Manual*, by the Department of Environment, Parks, Heritage and the Arts, dated July 2008, and any amendment to or substitution of this document.

The Land means the land on which the activity to which this document relates may be carried out, and includes: buildings and other structures permanently fixed to the land, any part of the land covered with water, and any water covering the land. The Land falls within the area defined by:

- 1 Forest Lease: FL1275, Property ID: 3386594; and
- **2** as further delineated at Attachment 1.

Wastewater means spent or used water (whether from industrial or domestic sources) containing a pollutant and includes stormwater which becomes mixed with wastewater.

Weed means a declared weed as defined in the Weed Management Act 1999.

Schedule 2: Conditions

General

G1 Regulatory limit

- 1 The activity must not exceed the following limit:
 - **1.1** Maximum of 175 tonnes standing biomass of fish.

G2 Access to and awareness of conditions and associated documents

A copy of these conditions and any associated documents referred to in these conditions must be held in a location that is known to and accessible to the person responsible for the activity. The person responsible for the activity must ensure that all persons who are responsible for undertaking work on The Land, including contractors and sub-contractors, are familiar with these conditions to the extent relevant to their work.

G3 No changes to an Environmental Licence activity without approval

- 1 The following changes, if they may cause or increase the emission of a pollutant which may cause material or serious environmental harm or environmental nuisance, must only take place in relation to the activity if such changes have been approved in writing by the EPA Board following its assessment of an application for a permit under the *Land Use Planning and Approvals Act 1993*, or an application for a new environmental licence or to vary an environmental licence; or approved in writing by the Director:
 - 1.1 a change to a process used in the course of carrying out the activity; or
 - **1.2** the construction, installation, alteration or removal of any structure or equipment used in the course of carrying out the activity; or
 - **1.3** a change in the quantity or characteristics of materials used in the course of carrying out the activity.

G4 Incident response

If an incident causing or threatening environmental nuisance, serious environmental harm or material environmental harm from pollution occurs in the course of the activity, then the person responsible for the activity must immediately take all reasonable and practicable action to minimise any adverse environmental effects from the incident.

G5 Notification of fish or ova mortality

The licensee(s) must immediately notify the Director of any significant fish or ova mortality event within the fish farm to which this licence relates.

G6 Change of responsibility

If the person responsible for the activity intends to cease to be responsible for the activity, that person must notify the Director in writing of the full particulars of any person succeeding him or her as the person responsible for the activity, before such cessation.

G7 Change of ownership

If the owner of The Land upon which the activity is carried out changes or is to change, then, as soon as reasonably practicable but no later than 30 days after becoming aware of the change or intended change in the ownership of The Land, the person responsible must notify the Director in writing of the change or intended change of ownership.

G8 Annual Environmental Review

- 1 Unless otherwise specified in writing by the Director, a publicly available Annual Environmental Review for the activity must be submitted to the Director each year within three months of the end of the reporting period. Without limitation, each Annual Environmental Review must include the following information:
 - **1.1** a statement by the General Manager, Chief Executive Officer or equivalent for the activity acknowledging the contents of the Annual Environmental Review;
 - **1.2** subject to the *Personal Information Protection Act 2004*, a list of all complaints received from the public during the reporting period concerning actual or potential environmental harm or environmental nuisance caused by the activity and a description of any actions taken as a result of those complaints;
 - **1.3** details of environment-related procedural or process changes that have been implemented during the reporting period;
 - **1.4** a summary of the amounts (tonnes or litres) of both solid and liquid wastes produced and treatment methods implemented during the reporting period. Initiatives or programs planned to avoid, minimise, re-use, or recycle such wastes over the next reporting period should be detailed;
 - **1.5** details of all non-trivial environmental incidents and/or incidents of non compliance with these conditions that occurred during the reporting period, and any mitigative or preventative actions that have resulted from such incidents;
 - **1.6** a summary of the monitoring data and record keeping required by these conditions. This information should be presented in graphical form where possible, including comparison with the results of at least the preceding reporting period. Special causes and system changes that have impacted on the parameters monitored must be noted. Explanation of significant deviations between actual results and any predictions made in previous reports must be provided;
 - **1.7** identification of breaches of limits specified in these conditions and significant variations from predicted results contained in any relevant DPEMP or EMP, an explanation of why each identified breach of specified limits or variation from predictions occurred and details of the actions taken in response to each identified breach of limits or variance from predictions;
 - **1.8** a list of any issues, not discussed elsewhere in the report, that must be addressed to improve compliance with these conditions, and the actions that are proposed to address any such issues;
 - **1.9** a summary of fulfilment of environmental commitments made for the reporting period. This summary must include indication of results of the actions implemented and explanation of any failures to achieve such commitments; and
 - **1.10** a summary of any community consultation and communication undertaken during the reporting period.

G9 Additional requirements for Annual Environmental Review

- 1 The person responsible must include a Drum Filter Bypass Report for the reporting period in the Annual Environmental Review. The Drum Filter Bypass Report must contain details of drum filter component design and operation including:
 - **1.1** the maximum wastewater inflow rate at which full treatment is maintained with no drum filter bypass occurring;
 - **1.2** the wastewater inflow rate at which each bypass at the drum filter comes into operation; and

1.3 a summary of the historical operation of each of the bypasses including dates, duration of bypass, reason for bypass, and the estimated or measured volumes spilled on each occasion.

G10 Complaints register

- 1 A public complaints register must be maintained. The public complaints register must, as a minimum, record the following detail in relation to each complaint received in which it is alleged that environmental harm (including an environmental nuisance) has been caused by the activity:
 - **1.1** the date and time at which the complaint was received;
 - **1.2** contact details for the complainant (where provided);
 - **1.3** the subject matter of the complaint;
 - **1.4** any investigations undertaken with regard to the complaint; and
 - **1.5** the manner in which the complaint was resolved, including any mitigation measures implemented.
- 2 Complaint records must be maintained for a period of at least 3 years.

G11 Sludge Waste Reuse Management Plan

- 1 Unless otherwise specified in writing by the Director, a Sludge Waste Reuse Management Plan for the activity must be submitted to the Director for approval within three (3) months of the date on which these conditions take effect. This requirement will be deemed to be satisfied only when the Director indicates in writing that the submitted document sufficiently addresses this condition.
- 2 The Sludge Reuse Management Plan must be prepared to be consistent with the *Tasmanian Biosolids Reuse Guidelines (DPIWE, August 1999)* or any other guidelines provided by the Director, and amended from time to time as approved in writing by the Director.

G12 Construction and Environmental Management Plan

- **1** Construction activities must be carried out in accordance with the approved Construction and Environmental Management Plan.
- 2 The approved plan, may be amended from time to time with the written approval of the Director.

G13 Discharge Management Plan

- 1 Unless otherwise approved in writing by the Director, a Discharge Management Plan must be prepared to the satisfaction of the Director and be submitted to the Director by 31 March 2020.
- 2 The Discharge Management Plan must include:
 - **2.1** an assessment of the available options for improved effluent management in accordance with the hierarchy set out in Division 2: 'Management of Point Sources of Pollution' of the SPWQM;
 - **2.2** a description of the volume and quality of effluent likely to be discharged to the receiving waters with consideration of effluent loads discharged to any approved reuse schemes;
 - **2.3** an assessment of the current impact of effluent discharges from the activity on the receiving environment. The assessment must incorporate and analyse the findings of the Ambient Monitoring Report and other monitoring data submitted to the Director in accordance with these conditions;

- **2.4** measures to ensure that the discharge of effluent to the receiving waters does not prejudice the achievement of the recommended water quality objectives at the discharge point including:
 - 2.4.1 recommended emission limits determined in accordance with the SPWQM;
 - **2.4.2** proposed effluent management measures including alternate discharge point options, seasonal discharge management and / or the establishment of a mixing zone, where necessary; and
 - **2.4.3** details of any upgrades of wastewater treatment infrastructure necessary to achieve the recommended emission limits and implement the discharge management measures.
- **2.5** a table containing all of the major commitments made in the plan;
- 2.6 an implementation timetable for key aspects of the plan; and
- **2.7** a reporting schedule to regularly advise the Director of progress with implementation of the plan.
- **3** The person responsible must implement and act in accordance with the approved Discharge Management Plan.
- 4 In the event that the Director, by notice in writing to the person responsible, either approves a minor variation to the approved Discharge Management Plan or approves a new Discharge Management Plan in substitution for the plan originally approved, the person responsible must implement and act in accordance with the varied plan or the new plan.

Atmospheric

A1 Odour management

- 1 The person responsible must institute such odour management measures as are necessary to prevent odours causing environmental nuisance beyond the boundary of The Land. Unless otherwise approved in writing by the Director, the measures must include those listed under section 3.5.1 of the Environmental Effects Report.
- 2 In the event that an odour complaint is received in relation to the activity:
 - 2.1 the complaint must be reported to the Director within 24 hours; and
 - **2.2** immediate action must be taken by the person responsible for the activity to identify the source of the odour and implement measures to remove the odour source or mitigate the odour nuisance.

Construction

CN1 Operating hours - Construction

- 1 Unless otherwise approved in writing by the Director:
 - **1.1** Construction activities must not be undertaken outside 0700 hours to 1900 hours Monday to Friday; and 0800 hours to 1700 hours Saturdays
 - **1.2** Notwithstanding the above paragraph, the construction activities must not be carried out on Sundays or Public Holidays that are observed State-wide (Easter Tuesday excepted).

CN2 Weed management

The Land must be kept substantially free of weeds to minimise the risk of weeds being spread through vehicle movements and transport of equipment to and from The Land.

CN3 Stormwater to be excluded

Stormwater must be prevented as far as practicable from entering the construction zone.

CN4 Retention of sediment

During construction activities all reasonable measures must be implemented to ensure that solids entrained in stormwater traversing the construction site are retained on The Land. Such measures may include provision of strategically located sediment fences, and appropriately sized and maintained sediment settling ponds.

Decommissioning And Rehabilitation

DC1 Notification of cessation

Within 30 days of becoming aware of any event or decision which is likely to give rise to the permanent cessation of the activity, the person responsible for the activity must notify the Director in writing of that event or decision. The notice must specify the date upon which the activity is expected to cease or has ceased.

DC2 DRP requirements

Unless otherwise approved in writing by the Director, a Decommissioning and Rehabilitation Plan (DRP) for the activity must be submitted for approval to the Director within 30 days of the Director being notified of the planned cessation of the activity or by a date specified in writing by the Director. The DRP must be prepared in accordance with any guidelines provided by the Director.

DC3 Rehabilitation following cessation

- 1 Following permanent cessation of the activity, and unless otherwise approved in writing by the Director, The Land must be rehabilitated including:
 - **1.1** stabilisation of any land surfaces that may be subject to erosion;
 - **1.2** removal or mitigation of all environmental hazards or land contamination, that might pose an on-going risk of causing environmental harm; and
 - **1.3** decommissioning of any equipment that has not been removed.
- 2 Where a Decommissioning and Rehabilitation Plan (DRP) has been approved by the Director, decommissioning and rehabilitation must be carried out in accordance with that plan, as may be amended from time to time with written approval of the Director.

Effluent

EF1 Effluent discharge from the fish farm

- 1 Effluent from the fish farm must only be discharged at the following discharge point:
 - **1.1** Discharge to the Florentine River from the existing outfall of the existing settlement pond.
 - **1.2** Effluent must not be discharged to the point referred to in clause 1.1 unless the effluent is compliant with the Interim Effluent Quality Limits for discharge to the Florentine River, set in these conditions.

EF2 Interim effluent quality limits for discharge to the Florentine River

- 1 Prior to commissioning of the drum screens, unless otherwise approved in writing by the Director, effluent discharged to the Florentine River must comply with the effluent quality limits set out in the Maximum Limit column of Table 1. Interim Effluent Quality Limits for discharge to the Florentine River.
- 2 After commissioning of the drum screens, unless otherwise approved in writing by the Director, effluent discharged to the Florentine River must comply with the effluent quality limits set out in the Table 1. Interim Effluent Quality Limits for discharge to the Florentine River.

- **3** The pH of the effluent discharged to water must be between 7.0 and 8.0.
- 4 For the purpose of this condition 'median' means the value at which the relevant parameter is exceeded by no more than 50 percent of all sample results over a 12 month period, '90th percentile' means the value at which the relevant parameter is exceeded by no more than 10 percent of all sample results over a twelve month period.

Parameter	Units	Median Limit	90th Percentile Limit	Maximum Limit
Biochemical Oxygen Demand	mg/L	5	6	8.8
Electrical conductivity	µS/cm	178	290.5	329
Total Suspended Solids	mg/L	4	8	9.8
Total Ammonia Nitrogen	mg/L	0.340	0.662	0.760
Nitrate and Nitrite	mg-N/L	0.120	1.08	1.6
Dissolved Reactive Phosphorus	mg-N/L	0.056	0.1052	0.192
Total Nitrogen	mg/L	1.15	2	3.22
Total Phosphorus	mg/L	0.115	0.201	0.394

5 Table 1. Interim Effluent Quality Limits for discharge to the Florentine River.

Flora And Fauna

FF1 Pre-construction surveys

- 1 Unless otherwise approved in writing by the Director, if construction is deemed likely to continue into the eagle breeding season, a pre-construction survey by a suitably qualified / experienced person must be undertaken to identify whether any *Aquila audax subsp. fleayi* (Tasmanian wedge-tailed eagle) nest is located within 1 kilometre of the Land. The nest survey must be undertaken outside of the eagle breeding season.
- 2 Any eagle nest that is identified must be brought to the attention of the Director as soon as reasonably practicable.

FF2 Protection of native forest, riparian vegetation and biological communities

- 1 Unless otherwise approved in writing by the Director:
 - **1.1** There must be no disturbance of the native vegetation beyond the Operational Area shown at Attachment 2; and
 - **1.2** the activity must be conducted in a manner that does not cause degradation or disturbance (including sedimentation) of flora and fauna communities existing outside the Operational Area shown in Attachment 2.

Monitoring

M1 Dealing with samples obtained for monitoring

1 Any sample or measurement required to be obtained under these conditions must be taken and processed in accordance with the following:

- **1.1** Australian Standards, the National Association of Testing Authorities (NATA) accredited methods, the American Public Health Association Standard Methods for the Analysis of Water and Waste Water or other standard(s) approved in writing by the Director;
- **1.2** samples must be tested in a laboratory accredited by NATA, or a laboratory approved in writing by the Director, for the specified test;
- **1.3** results of measurements and analysis of samples and details of methods employed in taking measurements and samples must be retained for at least three (3) years after the date of collection;
- **1.4** measurement equipment must be maintained and operated in accordance with manufacturer's specifications and records of maintenance must be retained for at least three (3) years; and
- **1.5** noise measurements must be undertaken in accordance with the Tasmanian Noise Measurement Procedures Manual.

M2 Drum screen performance monitoring

1 Unless otherwise approved in writing by the Director, the monitoring specified in Table 2 must be conducted following commissioning of the drum filters, from October 2019 until June 2020, or for another nine month period that captures the annual production increase and peak production with the written approval of the Director.

2 Table 2. Drum screen performance monitoring.

Parameter	Units	Frequency	Sampling Location	Sampling Method
Dissolved Oxygen	mg/L and % saturation	Fortnightly	Drum screen inlet Drum screen outlet	Field measurement
рН	-	Fortnightly	Drum screen inlet Drum screen outlet	Field measurement
Electrical Conductivity	μS/cm	Fortnightly	Drum screen inlet Drum screen outlet	Field measurement
Temperature	°C	Fortnightly	Drum screen inlet Drum screen outlet	Field measurement
Flow	L/s	Fortnightly	Drum screen outlet	Field measurement
Biochemical Oxygen Demand	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Dissolved Organic Carbon	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Total Organic Carbon	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Total Ammonia Nitrogen	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Nitrate- Nitrogen	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Nitrite-Nitrogen	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Total Nitrogen	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Dissolved Reactive Phosphorus	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Total Kjeldahl Nitrogen	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Total Phosphorus	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample
Total Suspended Solids	mg/L	Fortnightly	Drum screen inlet Drum screen outlet	1 grab sample

M3 Water Quality Monitoring requirements relating to the fish farm activity and the Florentine River

- 1 Monitoring must be undertaken in accordance with Table 3 at the locations described in Table 4, unless otherwise approved in wring by the Director.
- 2 The Water Quality monitoring must be conducted fortnightly until the drum screens are commissioned, and fortnightly for the period from October 2019 to June 2020, then monthly ongoing, unless otherwise approved in writing by the Director.

3 Table 3. Water Quality and Flow Monitoring.

Parameter	Units	Frequency	Sampling location	Method
Flow	ML/d	Daily	1	Field measurement
Dissolved Oxygen	mg/L and % saturation	Fortnightly, then monthly	1, 2, 3, 4	Field measurement
рН	-	Fortnightly, then monthly	1, 2, 3, 4	Field measurement
Electrical Conductivity	uS/cm	Fortnightly, then monthly	1, 2, 3, 4	Field measurement
Temperature	oC	Fortnightly, then monthly	1, 2, 3, 4	Field measurement
Biochemical Oxygen Demand	mg/L	Fortnightly, then monthly	2	1 grab sample
Dissolved Organic Carbon	mg/L	Fortnightly, then monthly	1, 2, 3, 4,	1 grab sample
Total Organic Carbon	mg/L	Fortnightly, then monthly	1, 2, 3, 4	1 grab sample
Total Ammonia Nitrogen	mg/L	Fortnightly, then monthly	1, 2, 3, 4	1 grab sample
Nitrate - Nitrogen	mg/L	Fortnightly, then monthly	2	1 grab sample
Nitrite - Nitrogen	mg/L	Fortnightly, then monthly	2	1 grab sample
Nitrate + Nitrite	mg/L	Fortnightly, then monthly	1, 3, 4	1 grab sample
Total Nitrogen	mg/L	Fortnightly, then monthly	1, 2, 3, 4	1 grab sample
Dissolved Reactive Phosphorus	mg/L	Fortnightly, then monthly	1, 2, 3, 4	1 grab sample
Total Kjeldahl Nitrogen	mg/L	Fortnightly, then monthly	1, 2, 3, 4	1 grab sample
Total Phosphorus	mg/L	Fortnightly, then monthly	1, 2, 3, 4	1 grab sample
Total Suspended Solids	mg/L	Fortnightly, then monthly	1, 2, 3, 4	1 grab sample
Chemical residues	mg/L	Fortnightly, then monthly	2	1 grab sample

*Chemical residues are those identified as potentially arising from the activity, in accordance with Condition M7.

4 Table 4. Sampling Location Descriptions for Water Quality and Flow Monitoring.

Sampling Location Reference	Description of sampling location	
1	Florentine River upstream of the hatchery or the hatchery inlet	
2	The outfall into the Florentine River	
3	Florentine River approximately 60 metres downstream of the effluent outfall	
4	Florentine River approximately 200 metres downstream of the effluent outfall	

M4 Biological Monitoring of the Florentine River

- 1 Unless otherwise approved in writing by the Director, biological monitoring must be conducted on an approximately six monthly basis at Sites 3 and 4 as described in Table 4.
- 2 Biological sampling must be timed to represent an autumn sample and a late spring sample each year and must be undertaken by a suitably qualified and experienced person.
- 3 Measurements and sample collection for all locations must be made as close to the same time as possible. General water quality samples and measurements, as required by these conditions, must also be collected at the time of the biological monitoring.
- 4 The date and time of all measurements and sample collection must be recorded.
- 5 Field measurements and sampling must be conducted for the parameters specified in Column 1 of the Table 5. Biological Monitoring Methods below, for the measure specified in Column 2 and using the method specified in Column 3.

Parameter	Measure	Method
Macroinvertebrates	Taxon abundance per m ² of substrate	Tasmanian River Condition Index (TRCI)
Macroinvertebrates	AUSRIVAS Band O/E Score O/E Signal Score	AUSRIVAS combined season riffle assessment (TRCI)
Macroinvertebrates	Macroinvertebrate composition EPT Diversity Taxon Diversity Signal Index	Calculated from AUSRIVAS data
Macroinvertebrates	Rank abundance model outputs	Tasmanian rank abundance model assessment
Stream shading	% stream shading by riparian vegetation	TRCI
Algal cover	% stream bed cover	TRCI
Algal biomass	Chlorophyll a (mg/m ²)	TRCI

6 Table 5. Biological Monitoring Methods.

M5 Ambient monitoring of receiving waters for the Florentine River and Lake Catagunya

1 Unless otherwise approved in writing by the Director, ambient monitoring must be undertaken and reported to the Director, as specified by these conditions.

- 2 An Ambient Monitoring Plan for Receiving Waters, including the Florentine River downstream of the finfish farming activity and the Lake Catagunya in the vicinity of the inflow of the Florentine River must be submitted by the person responsible to the Director for approval by 30 June 2019.
- **3** The ambient monitoring plan for receiving waters must:
 - **3.1** be informed by the Australian Guidelines for Water Quality Monitoring and Reporting;
 - **3.2** outline the program scope, methods, locations, parameters, frequency and duration of the proposed monitoring program, including the rationale for design features of the program such as any modelling undertaken, that are additional to the monitoring requirements prescribed in these conditions;
 - **3.3** be designed to characterise the ambient water quality and biological conditions and to assess the impact of effluent discharged from the activity through the annual production cycle, and taking into account seasonal effects and other variation in the receiving environment;
 - **3.4** be designed to take into account the Protected Environmental Values and identify sensitive receptors within the receiving environment; and
 - **3.5** incorporate an effluent plume dilution study which identifies the behaviour and dimensions of the mixing zone at the authorised discharge point;
 - **3.6** be designed to identify the location and extent of the mixing zone, taking into account seasonal effects and other variation in the receiving environment;
 - **3.7** include an implementation timetable for the plan.
- 4 Unless otherwise approved in writing by the Director, the approved ambient monitoring plan for receiving waters must be implemented within 1 month of the plan being approved in writing by the Director.
- 5 Within 3 months of the completion of ambient monitoring as stipulated in the approved Ambient Monitoring Plan for Receiving Waters, an Ambient Monitoring Report must be submitted to the Director which must include the following information:
 - **5.1** a description of the quality of the receiving waters environment, both in areas impacted by the discharge and in areas that are not impacted by the discharge, including graphical presentation of monitoring results collected in accordance with these conditions and an analysis of seasonal effects and other variation;
 - **5.2** observations regarding the dilution and dispersion of effluent into the receiving waters in comparison to predictions or findings of previous studies, where these may be available;
 - **5.3** an assessment of the dilution and dispersion patterns achieved in the receiving waters and recommendations regarding the location and extent of the mixing zone;
 - **5.4** an evaluation of the environmental impacts with consideration of Protected Environmental Values and relevant sensitive receptors, based on the monitoring results, the annual production cycle of the finfish farming activity and knowledge of seasonal effects and other variation.

M6 Geographic references for sampling locations

- 1 Within 4 weeks of these conditions coming into effect accurate geographic references, such as GPS co-ordinates or grid references for the sampling locations referred to in the monitoring conditions of this licence, must be submitted to the Director.
- 2 The geographic references must be submitted as a table of co-ordinates and present on an accurately scaled map that is marked with clear labels for each sampling location.

M7 Identification of Chemical additives and residues

- 1 Within 4 weeks of these conditions coming into effect, a list of all chemical additives that may come into contact with surface waters during the course of the activity and all chemical residues potentially arising from those chemical additives, must be identified, documented and submitted to the Director.
- 2 If the person responsible for the activity intends to modify the list of chemical additives and residues, the licensee(s) must notify the Director in writing of the full particulars of any change(s) to the list, as soon as reasonably practicable and before changes are made to the activity.
- **3** This requirement will be deemed to be satisfied only when the Director indicates in writing that the submitted document sufficiently identifies chemical additives and chemical residues potentially arising from the activity.

Operations

OP1 Therapeutant and chemical use

- 1 Unless otherwise specified in writing by the Director, residues of therapeutic chemicals and cleaning chemicals in wastes that are applied to land must not be in concentrations that would cause them to be pollutants or cause them to persist in the environment.
- 2 Records of all therapeutic chemical (including antibiotics, hormones, anti-fungal and anti-parasite medication) and chemical use in carrying out this activity must be kept for a minimum period of three years. Records must include date of use, reason for use, dosage (as applicable), total volume and method of disposal.

OP2 Storage and handling of hazardous materials

- 1 Unless otherwise approved in writing by the Director, environmentally hazardous materials held on The Land must be:
 - **1.1** stored within impervious bunded areas, spill trays or other containment systems; and
 - **1.2** managed to prevent unauthorised discharge, emission or deposition of pollutants:
 - **1.2.1** to soils within the boundary of The Land in a manner that is likely to cause serious or material environmental harm;
 - **1.2.2** to groundwater;
 - 1.2.3 to waterways; or
 - **1.2.4** beyond the boundary of The Land.

OP3 Bypass event recording for effluent treatment system

- **1** Within 4 weeks of these conditions coming into effect, the person responsible must establish a recording system for logging bypass events, where:
 - **1.1** the effluent treatment system is bypassed during construction of the drum screens; or
 - **1.2** the drum screens are bypassed after their commissioning.
- 2 The following information must be recorded for each bypass event:
 - **2.1** start and finish date;
 - **2.2** start and finish time;
 - **2.3** reason for the bypass.

Reporting

RP1 Submission of sampling results

All sampling results and collated data from measurements, observations at the fish farm (in RAS and flow-through systems) and surrounding environment, must be forwarded to the Director within 10 days of receipt of the monthly analytical results. Sampling results must be presented in a format approved by the Director. Results of analyses conducted by a laboratory must be submitted on the original laboratory certificates.

Waste Management

WM1 Management of Wastes Containing Restricted Animal Material

All wastes containing fish tissues or fish meal, including fish farm sludge waste, must be treated as Restricted Animal Material (RAM). Ruminant stock must be prevented from accessing RAM. Where sludge waste is land-spread a minimum withholding period for ruminant stock of 21 days or until the sludge waste is no longer visible, must be observed.

WM2 Management and disposal of sludge waste

- 1 Sludge waste separated by the drum filter must be dewatered and kept in leak-proof durable containers, which must be kept closed when putrescible material is being held in them, to the extent that it is practical and reasonable.
- 2 Sludge waste must be substantially removed from the settlement pond annually, and enclosed in leak-proof durable containers for the purpose of transport and disposal.
- **3** The sludge waste must be disposed to facility which has all necessary approvals to conduct these activities.

Schedule 3: Information

Legal Obligations

LO1 EMPCA

The activity must be conducted in accordance with the requirements of the *Environmental Management and Pollution Control Act 1994* and Regulations thereunder. The conditions of this document must not be construed as an exemption from any of those requirements.

LO2 Storage and handling of dangerous goods, explosives and dangerous substances

- **1** The storage, handling and transport of dangerous goods, explosives and dangerous substances must comply with the requirements of relevant State Acts and any regulations thereunder, including:
 - **1.1** *Work Health and Safety Act 2012* and subordinate regulations;
 - 1.2 *Explosives Act 2012* and subordinate regulations; and
 - **1.3** Dangerous Goods (Road and Rail Transport) Act 2010 and subordinate regulations.

LO3 Controlled waste transport

Transport of controlled wastes to and from The Land must be undertaken only by persons authorised to do so under EMPCA or subordinate legislation.

Other Information

OI1 Notification of incidents under section 32 of EMPCA

Where a person is required by section 32 of EMPCA to notify the Director of the release of a pollutant, the Director can be notified by telephoning **1800 005 171** (a 24-hour emergency telephone number).

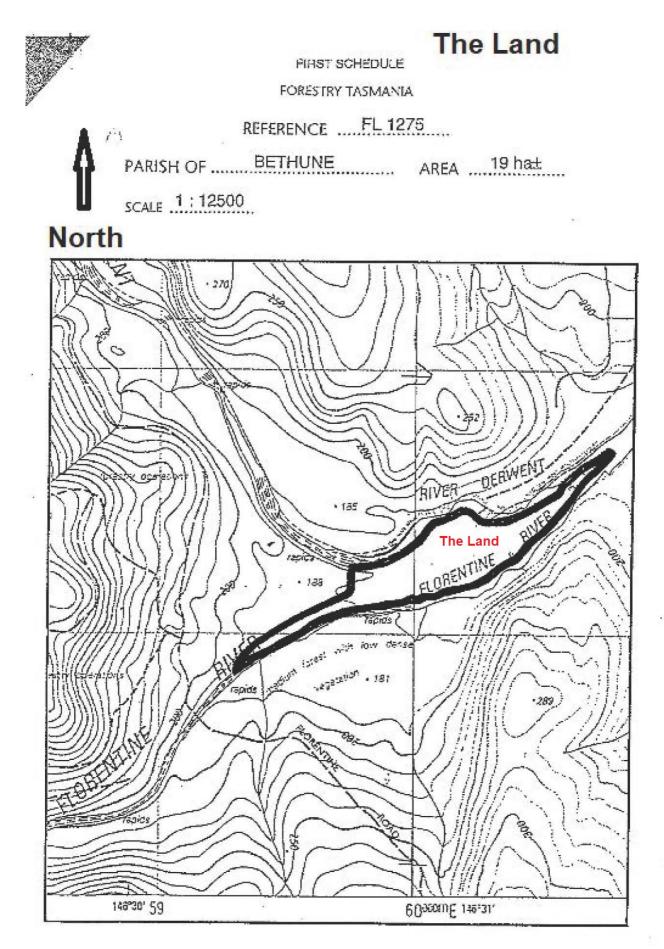
OI2 Waste management hierarchy

- Wastes should be managed in accordance with the following hierarchy of waste management:
 - **1.1** waste should be minimised, that is, the generation of waste must be reduced to the maximum extent that is reasonable and practicable, having regard to best practice environmental management;
 - **1.2** waste should be re-used or recycled to the maximum extent that is practicable; and
 - **1.3** waste that cannot be re-used or recycled must be disposed of at a waste depot site or treatment facility that has been approved in writing by the relevant planning authority or the Director to receive such waste, or otherwise in a manner approved in writing by the Director.

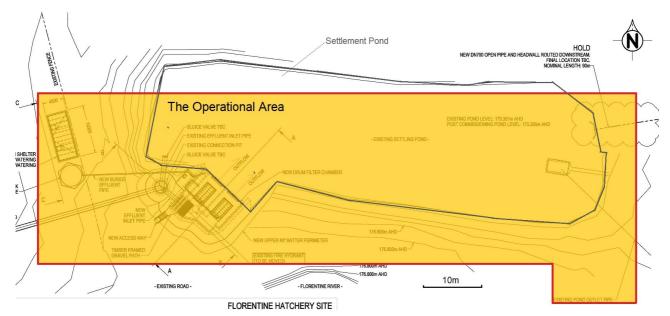
OI3 Use of therapeutants and other chemicals

Therapeutic chemicals and cleaning chemicals must be used consistent with the registration requirements for each chemical under the Australian Pesticides and Veterinary Medicines Authority (APVMA), and all chemicals must be managed consistent with relevant advice provided in the applicable safety data sheet (SDS).

Attachment 1: The Land



Attachment 2: The Operational Area



central highlands



20 February 2019

Bronwyn Turner 93 Thiessen Crescent MIENA Tas 7030

Dear Bronwyn

Petition to Hold a Public Meeting

I acknowledge receipt of your petition hand delivered to our Bothwell office on Thursday, 14th February 2019.

I wish to advise that as your petition complied with S57 of the Local Government Act 1993, as required by S58 of that Act, I tabled it at the Council Meeting held on 19th February 2019.

As the petition was for Council to hold a public meeting, it needed to meet the requirements of S59 (2) of the Local Government Act (signed by the lesser of 5% of the electors in the municipal area or 1000 of those electors). The signatories to the petition were checked to see if they were on the Central Highlands Electoral Roll.

I can advise that only 59 of the signatories are on the Central Highlands Electoral Roll. To comply, the petition needed to be signed by 125 electors.

I am to advise Council at its next Council Meeting to be held on 19th March 2019, that the petition did not meet the requirements of S59 (2) of the Act and Council is not bound to hold a public meeting. The Council, at that meeting, is to determine any action to be taken in respect of the petition.

Yours faithfully

SEyles.

Lyn Eyles GENERAL MANAGER

Administration &Works & ServicesTarleton StreetTel: (03) 6286 3202Hamilton, Tasmania 7140Fax: (03) 6286 3334

Development& Environmental Services Alexander Street Tel: (03) 6259 5503 Bothwell, Tasmania 7030 Fax: (03) 6259 5722

website www.centralhighlands.tas.gov.au

14 February 2019

Ms. Lyn Eyles General Manager Central Highlands Council 6 Tarleton Street Hamilton, TAS 7140

Enclosed is a petition to Central Highlands Council to hold a public meeting to discuss the proposed Lake Malbena Tourism Development.

The petition includes /67 signatures, including /43 persons who identify themselves as ratepayers.

Respectfully submitted by

BL-Tu-Bronwyn Turner

93 Thiessen Crescent Miena, TAS 7030 bronwyn.garry@hotmail.com

Kalvine 59

54 on electoral roll.

Action petitioned for Junny Ellewhilly Junny Ellewhilly Aduale Henduly Aduale Henduly Jerny DEUMISA Jerny DEUMISA Jerny DEUMISA Scort Nunghy CINNS CAMUSAN FOR	We, the undersigned, are concerned citizens/rate payers who request the Central Highlands Council to act now to hold a public meeting to discuss the proposed Lake Malbena tourism development (including DA 2018/50) Rate now to hold a concerned citizens/rate payers Signature Residential Address Residential Address Rate Paye (Y/N) Signature Residential Address Residential Address Rate Paye (Y/N) Photon 176 PENATO UND YES	w to hold a Rate Payer (Y/N) アビS ソビS ソビS	L' + XX
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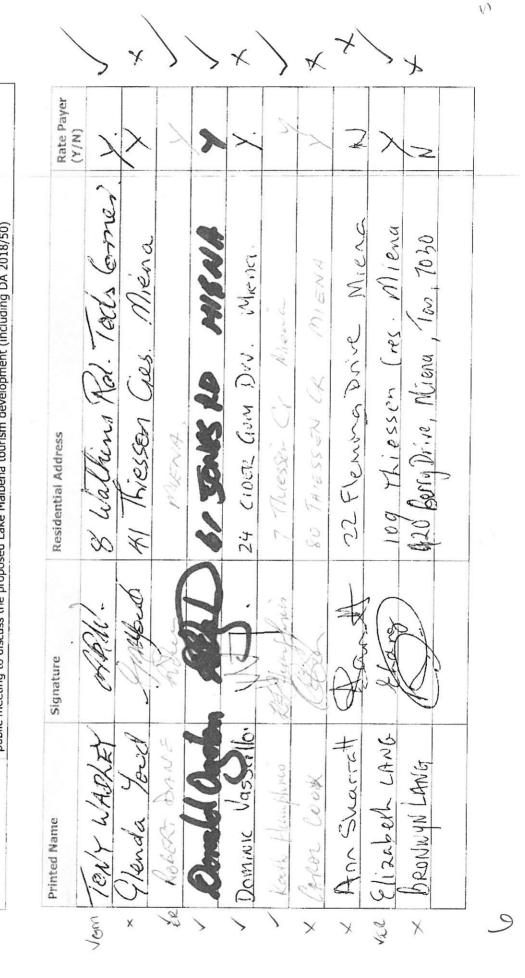
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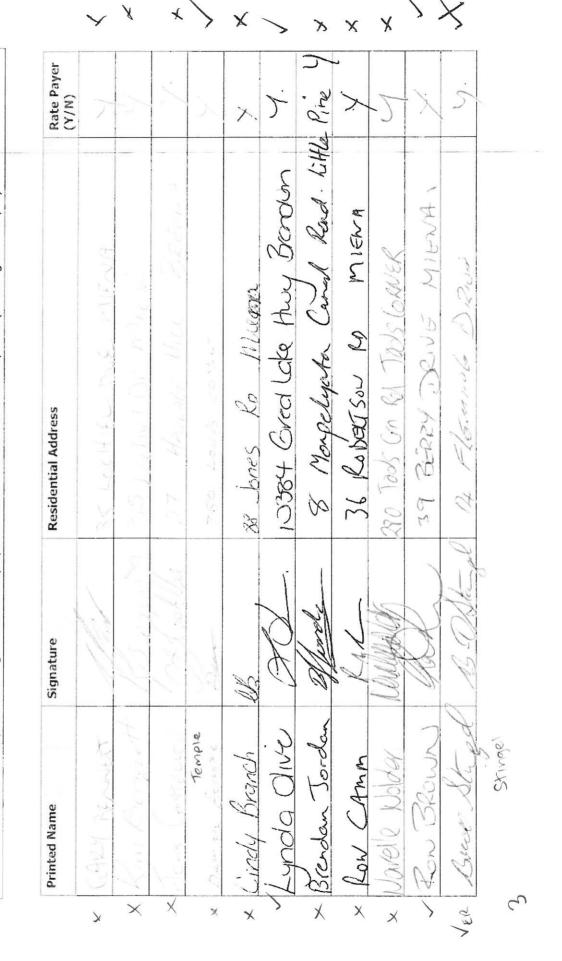
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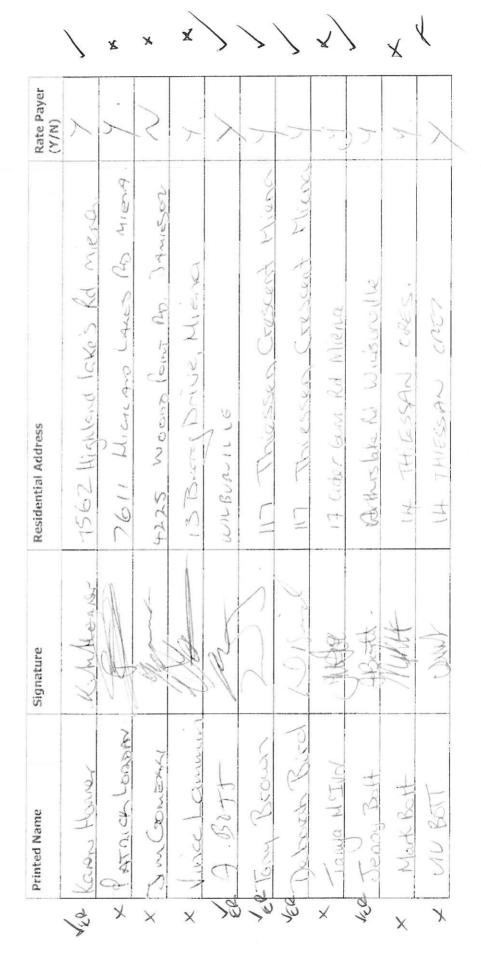
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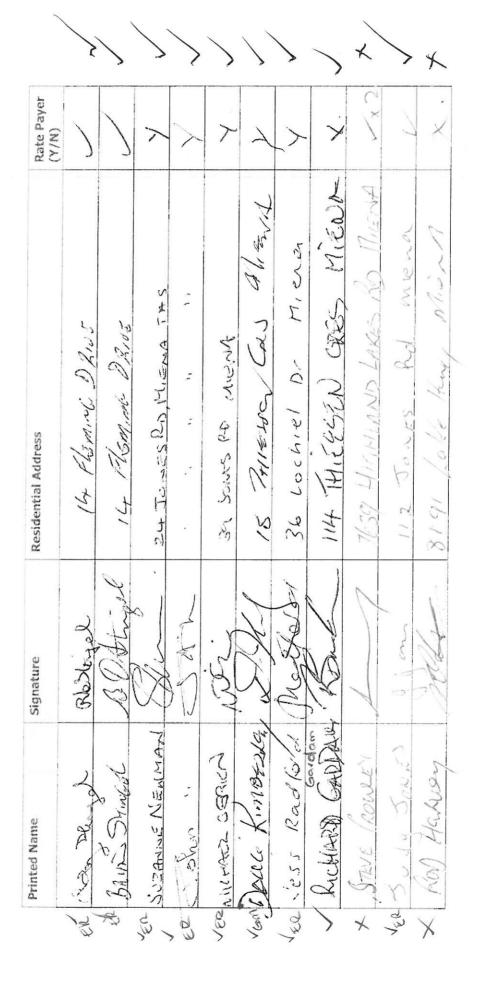


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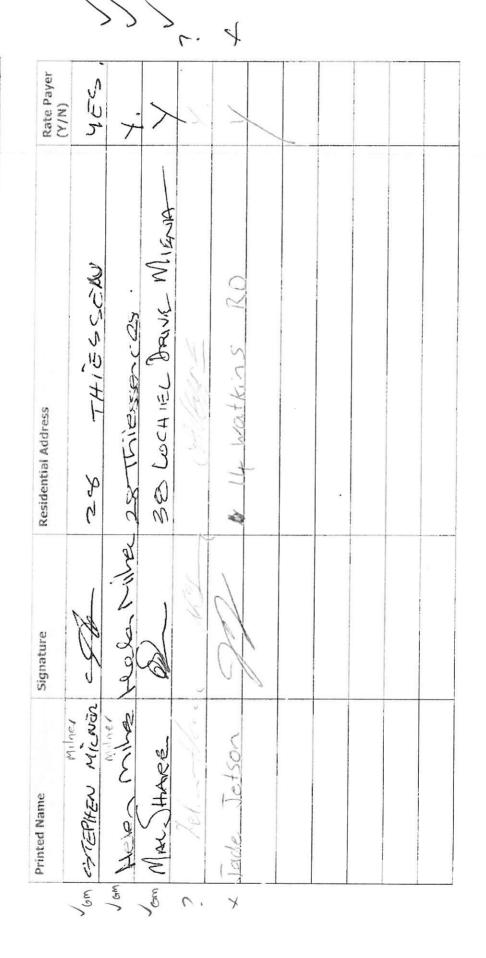
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14 February 2019

Ms. Lyn Eyles General Manager Central Highlands Council 6 Tarleton Street Hamilton, TAS 7140

Enclosed is a petition to Central Highlands Council to hold a public meeting to discuss the proposed Lake Malbena Tourism Development.

The petition includes 167 signatures, including 143 persons who identify themselves as ratepayers.

Respectfully submitted by

BL Bronwyn Turner 93 Thiessen Crescent Miena, TAS 7030 bronwyn.garry@hotmail.com

CENTRAL HIGHLANDS COUNCIL



Long Term Financial Plan and Strategy

2018/19 to 2028/29

P:\Finance\Central Highlands Council LTFP

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Executive Summary

Introduction:

The Central Highlands of Tasmania is one of the most beautiful and unique natural areas in the world. It covers a total area of 8,010 square kilometres (11.6% of the State) and makes a significant and increasing contribution to the economic wealth of Tasmania. Our region supports a large and diverse agriculture industry and a significant livestock industry including meat and dairy production and contains in excess of 15% of the states sheep and lambs. Our horticulture sector produces grapes, stone fruit and berries, and together with the forest industry, power production, trout fishing, tourism and recreation makes our area a diverse rural location.

The Financial Plan 2018/19 to 2028/29 is a 10 year rolling plan for the management of council's finances from 2018 to 2029. It is not intended to be static, but will be reviewed annually as part of the annual planning process and updated to reflect changing circumstances.

The Financial Plan has been developed to assist council in adopting a budget within a longer term prudent financial framework. The key objective of council's financial plan is financial sustainability in the medium to long term, while linking to council's objectives as specified in its Strategic Management Plan. The Plan is a guideline for future action and encourages council to take into consideration the future impact that decisions made today may have on council's long-term sustainability.

Vision:

Our vision is for the Central Highlands to provide residents and visitors opportunities to participate in and enjoy a vibrant local economy, rewarding community life, cultural heritage and a natural environment that is world class.

Mission:

Our mission is to provide the leadership; management and action needed to ensure local government and other services are provided to meet the social, economic and environmental needs of the present day community, whilst trying to ensure the best possible outcomes for future generations.

Goals:

Our goals are:

- To promote and facilitate the long term, sustainable use and protection of the area's valuable heritage, natural resources and environment in balance with the need for a vibrant economy generating local employment opportunities.
- All Central Highlands residents and ratepayers to have access to a road network and other essential property and community services that meet the reasonable economic, health and social needs of the community.
- Local government services and facilities to represent value for money and the optimum use and performance of Council's assets and resources.
- Effective consultation with local residents and business operators and representation of their needs to appropriate authorities.

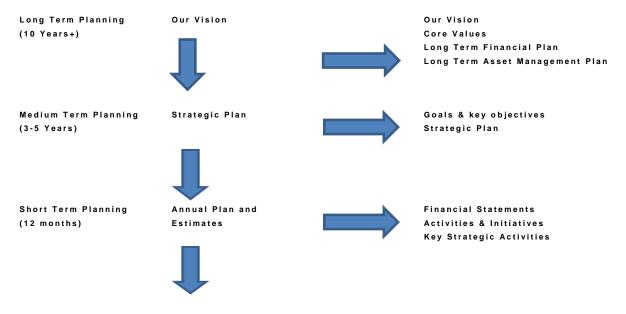
Key Statistics:

The following table provides a snapshot of the Central Highlands Council:

Area (sq. km)	8010
Population (est.)	2141
Number of Electors	2582
Number of Residential Properties	2194
Total Rates Levied	3,606,569
Total Recurrent Income (2017/18)	6,635,602
Number of FTE's	27

Strategic Planning Framework:

The LTFP is an important part of Council's overall financial management framework. The following table illustrates how Council's LTFP fits into Council's overall financial management framework.



Accountability (Year End) Audited Statements



Current Financial Performance and Position:

After several years of operating deficits, council has now attained three years of positive results from 2015/16 to 2017/18. Allowing an operational deficit to continue into the long term would have ultimately jeopardised the adequate funding of capital expenditure and Council's capacity to maintain and replace existing community assets.

Based on current service levels, Council is intending to maintain a positive result into the future.

Council has curtailed capital expenditure for new assets, instead focusing on the renewal and rehabilitation of existing assets. Council aims to maintain its infrastructure and assets at an acceptable standard. This involves developing and integrating long-term infrastructure and asset management plans with the LTFP to provide for the continued investment in maintenance, renewal and replacement of asset stock.

Long Term Asset Management Plan:

Infrastructure and Asset Management Plans have been developed to ensure that Council continues to provide effective and comprehensive management of its infrastructure asset portfolios. The Asset Management Plans are separate documents to the LTFP.

The asset management plans indicate that over the next 10 years Council should be spending between \$2.0M and \$2.2M per annum on asset capital renewal. An annual capital works program of around \$2.1M would maintain Council's current infrastructure at a good standard. The projected level of capital expenditure for the renewal and rehabilitation of infrastructure assets is consistent with Council's 10 year capital works program.

Long Term Financial Plan Overview:

Council's underlying operating surplus before capital related income is estimated to improve from \$89k in 2017/18 to an underlying surplus of \$197k in 2028/29.

The 2018/19 budgeted overall net surplus of \$209k should continue to improve each year thereafter.

Planning Assumptions:

The base for the preparation of the LTFP is the Annual Estimates for 2018/19 with one off or non-recurring events adjusted for.

The planning assumptions used in the development of the LTFP are summarised below:

Revenue Category	Comments
Rates and Levies	Increase of 3% above inflation for 2019/20, 2% above inflation for 3 years 2020/21 to 2022/23. Then in line with CPI
Rates Growth	Annual increase of 0.2%
User charges	To be increased in line with CPI

Inflation has not been factored into any future amounts.

Operating Revenues:

This section analyses projected revenues of Council from 2018/19 to 2028/29. The table shows summarised movements in Council's key revenue streams over the ten year period.

Revenue Type	2018/19 '000	2023/24 '000	2028/29 '000
Rates and Levies	\$3,607	\$3,896	\$3,927
User Charges & Statutory Fees	\$239	\$239	\$239
Grants Operating	\$2,318	\$2,318	\$2,318
Other Revenue	\$240	\$240	\$240
Interest & Dividends	\$252	\$267	\$280
Total Operating Revenue	\$6,656	\$6,960	\$7,004
Grants - Capital	\$209	\$471	\$471
Total Revenue	\$6 <i>,</i> 865	\$7,431	\$7,475

Rates and Levies:

The LTFP assumes the general rate will increase of 3% above inflation for 2019/20, 2% above inflation for 3 years 2020/21 to 2022/23. Then in line with CPI.

The LTFP assumes a 0.2% annual increase in rate revenue through growth and development resulting in an increase in rateable properties. The number of new lots being created from subdivisions increases steadily most years and it is felt that a 0.2% increase in rates through growth is reasonable.

Garbage collection and recycling charges are estimated to also increase at CPI.

The fire levy that Council collects on behalf of the Tasmanian Fire Commission is offset by an identical increase in the related expenditure payment.

User Charges and Statutory Fees:

User charges relate to the recovery of service delivery costs through the charging of fees to users of Council's services. These include the hire of halls, recreation ground hire, pool fees, cemetery charges etc. The key principle in setting user fees has been to ensure that increases approximate CPI increase or market levels.

Statutory fees and fines relate mainly to those levied in accordance with legislative requirements. They include building fees, planning fees, health related fees and dog registrations.

The LTFP assumes an increase in user charges and statutory fees consistent with the CPI.

Grants – Operating:

Operating Grants are funds received from both the State and Federal Government for the purpose of delivering Council services.

The main source of grant revenue is from the State Grants Commission (SGC) in the form of Financial Assistance Grants (FAG). Council has little control over the level of FAG's received with changes likely to occur as a result of a change in population or distribution methodologies.

It is unlikely that there will be any increase in grants, or provision of new grants above CPI.

Other Revenue:

Other Council revenue includes:

- Government rate remission reimbursements
- Private works income
- Motor tax reimbursement
- Salary and other reimbursements

Interest and Dividends:

Estimated interest income over the ten year period is derived from Council's expected cash position at the end of each financial year using an estimated market rate of 2.25%.

As part owner of the Tasmanian Water and Sewerage Corporation, Council is entitled to a dividend after priority dividends, in proportion to its contributed assets. It is expected that the level of dividends will increase steadily over the life of this plan.

Grants Capital:

Capital Grants include all monies received from State, Federal and Community sources for the purposes of funding the capital works program. The LTFP reflects the Commonwealth's Roads to Recovery funding.

Any additional capital funding will not impact on the underlying operating result as the funds will be expended on new capital projects.

Non Cash Contributions and Net Gain from Sale of Assets:

Non Cash contributions are made up of assets donated to Council from property developers in the form of infrastructure (roads etc.) where at the completion of the development Council assumes responsibility for maintaining and replacing the infrastructure. As developer contributions are non-cash and capital in nature they do not affect the underlying operating result and have therefore been excluded from the LTFP.

Should Council dispose of any property during the ten year period, this would be considered as additional revenue.

Operating Expenditure:

This section analyses the expected expenditure of Council from 2018/19 to 2028/29. The table summarises the movements in Council's key expenditure items over the ten year period.

Expenditure Type	2018/19 '000	2023/24 '000	2028/29 '000
Depreciation	\$2,116	\$2,209	\$2,268
Employee Costs	\$1,789	\$1,789	\$1,789
Materials and Contracts	\$1,376	\$1,376	\$1,376
Other Expenses	\$1,375	\$1,374	\$1,374
Total Operating Expenditure	\$6,656	\$6,748	\$6,807

Depreciation:

Depreciation is an accounting measure which allocates the value of assets over their useful lives.

Council's infrastructure assets are held at depreciated replacement cost to ensure adequate provision for renewal of existing infrastructure through depreciation expense. The amount to be spent on asset renewal in any given year is determined by Councils long term asset management plan.

Employee Costs:

Employee costs include all salaries and wages and all employment related expenses including payroll tax, employer superannuation, leave entitlements, fringe benefit tax,

workers compensation insurance and professional development. These costs are expected to increase in line with CPI.

The LTFP assumes that staff numbers are maintained at the 2018/19 levels.

Materials and Contracts, Other Expenses:

Materials and contracts include the purchase of consumables, payments to contractors for the provision of services, insurances and utility costs. Utility costs relate to telecommunications, water, sewerage, and electricity.

Council aims to maintain the level of growth in materials and contracts expenditure to CPI increases.

The 0.2 percent growth in rates through increased rateable properties is not expected to have a significant impact on expenditure. It is reasonable to assume that new subdivisions would require minimal maintenance over the period of this LTFP.

Levies to State Government:

Levies to state government include land tax and state fire levies. State fire levies are collected on behalf of the State Fire Commission. These funds are paid directly to the State Fire Commission and Council has no control over the levies.

Analysis of Estimated Cash Flow:

This section analyses the projected cash flows from the operating, investing and financing activities of Council from 2018/2019 to 2028/2029. The cash flow from operating activities is a key factor in determining the level of capital expenditure that can be sustained without using existing cash reserves.

The analysis is based on the three main categories of cash flows:

1. Operating activities – refers to the cash generated or used in the normal service delivery functions of Council. Cash remaining after paying for the provision of services to the community may be available for investment in capital works.

2. Investing activities – refers to cash generated or used in the enhancement or creation of infrastructure or other assets. These activities also include the acquisition and sale of other assets such as vehicles, property and equipment.

3. Financing activities – refers to cash generated or used in the financing of Council functions and includes borrowings from financial institutions and advancing of repayable loans to other organisations. These activities also include repayment of the principal component of loan repayments for the year.

	2018/19 '000	2023/24 '000	2028/29 '000
Net Cash Flow from	\$2,116	\$2,421	\$2,465
Operating Activities			
Net Cash Flow used	(\$2,479)	(\$2,320)	(\$2,243)
in Investing Activities			
Net	(\$363)	\$101	\$222
(Decrease)/Increase			
in Cash Held			
Cash at End of Year	\$8,545	\$8,431	\$9,140

Analysis of Estimated Financial Position:

This section analyses the projected movements in assets, liabilities and equity from 2018/2019 to 2028/2029.

	2018/19 '000	2023/24 '000	2028/29 '000
Total Current Assets	\$8,858	\$8,643	\$9,453
Total Non-Current Assets	\$91,739	\$95,288	\$98,788
Total Current Liabilities	\$1,468	\$1,468	\$1,467
Total non-Current Liabilities	\$86	\$86	\$86
Net Assets	\$99,043	\$102,377	\$106,688

Current Assets and Non-Current Assets:

Current assets comprise cash, investments and receivables. Current assets are estimated to increase from \$8,858k in 2018/2019 to \$9,453k in 2028/2029. The increase in cash can be attributed to long lived assets such as bridges, buildings etc. that will not be replaced in the timespan of this plan but will need replacing in later years.

Non-Current assets primarily include Land and Buildings, Plant and Vehicles, Furniture and Equipment, Infrastructure, Computers and Intangibles.

Current Liabilities and Non-Current Liabilities:

Liabilities include creditors, employee provisions and other liabilities.

The balance of payables is difficult to predict due to the timing of capital works. It has been predicted that the level of staffing will remain reasonably static and that leave balances will remain relatively constant.

All other liabilities are expected to remain stable.

Key Financial Indicators:

Underlying Surplus Ratio:

The underlying Surplus ratio expresses operating revenue over operating expenditure as a percentage. A result greater than 1% indicates a surplus, the larger the surplus the stronger the result and therefore stronger assessment of sustainability. A negative result indicates a deficit which cannot be sustained in the long term.

As evident from the table below, the underlying surplus ratio is currently below the benchmark of 1% which indicates that Council is not fully funding its depreciation expense at present but will be in the future.

	2018/19 '000	2023/24 '000	2028/29 '000
Total Operating	\$6,656	\$6,960	\$7,004
Revenue	¢c cee	¢c 740	¢C 007
Total Operating Expenditure	\$6,655	\$6,748	\$6,807
Ratio	0.0	3.0	2.8

Net Financial Liabilities:

This measure shows whether Council's total liabilities can be met by its liquid assets. An excess of total liabilities over liquid assets means that, if all liabilities fell due at once, additional revenue would be needed to fund the shortfall. Council is well positioned due to cash reserves.

	2018/19 '000	2023/24 '000	2028/29 '000
Liquid Assets	\$8,808	\$8,593	\$9,404
Total Liabilities	\$1,554	\$1,554	\$1,554
Net Financial Liabilities	\$7,254	\$7,039	\$7,850

Net Financial Liabilities Ratio:

This ratio indicates the net financial obligations of Council compared to its recurrent income. Target is 0% to (50%). Council is well above target due to cash reserves.

	2018/19 '000	2023/24 '000	2028/29 '000
Net Financial Liabilities	\$7,254	\$7,039	\$7,850
Recurrent Income	\$6,656	\$6,960	\$7,005
Ratio	109%	101%	112%

Asset Renewal Funding Ratio:

This ratio is calculated in relation to each asset class included in the long-term strategic asset management plan of Council.

Roads and Bridges	2018/19 '000	2023/24 '000	2028/29 '000
Projected capital funding outlays	\$906	\$1,540	\$1,520
Projected capital expenditure funding	\$906	\$1,540	\$1,520
Ratio	100%	100%	100%

Projected capital funding outlays are the value of projected funding outlays for an asset identified in Council's long-term financial plan.

Projected capital expenditure funding is the value of projected capital expenditure funding for an asset identified in Council's long-term strategic asset management plan.

Sensitivity Analysis:

The assumptions related to revenue streams and expenditure line items may have a significant impact on the long term forecast result of Council.

Materials & Contracts:

The level of Materials & Contracts expenditure is likely be the most subjective and have the greatest potential to impact on the LTFP.

The analysis below demonstrates the impact of changing annual increase in materials & contracts assumption in the LTFP by 1% above inflation.

	2018/19 '000	2023/24 '000	2028/29 '000
Annual Variance	\$14	\$14	\$14
Accum Variance	\$14	\$83	\$151

Over a 10 year period the Council would have generated \$151k less cash as a result of a 1.0% increase in materials & contracts above inflation.

APPENDIX A - S	TATEMENT	OF COM	PREHEN	SIVE INC	OME							
	Actual	Budget	LTFP									
_	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Revenue												
Rates	2,691,103	2,792,800	2,882,170	2,945,577	3,010,380	3,076,608	3,082,762	3,088,927	3,095,105	3,101,295	3,107,498	3,113,713
Waste Management	567,630	597,561	597,561	597,561	597,561	597,561	597,561	597,561	597,561	597,561	597,561	597,561
Fire Service Levies	214,641	216,208	216,208	216,208	216,208	216,208	216,208	216,208	216,208	216,208	216,208	216,208
Total Rates & Fire Levies	3,473,374	3,606,569	3,695,939	3,759,346	3,824,149	3,890,377	3,896,531	3,902,696	3,908,874	3,915,064	3,921,267	3,927,482
Grants	2,339,529	2,318,505	2,318,505	2,318,505	2,318,505	2,318,505	2,318,505	2,318,505	2,318,505	2,318,505	2,318,505	2,318,505
User Charges	304,250	238,500	238,500	238,500	238,500	238,500	238,500	238,500	238,500	238,500	238,500	238,500
Interest Earned	186,803	150,000	169,763	175,589	154,623	159,685	166,104	168,700	176,566	168,639	175,860	180,956
Dividends TasWater	153,484	102,000	102,000	102,000	102,000	102,000	102,000	102,000	102,000	102,000	102,000	102,000
Other Reimbursements/Revenue	399,410	240,034	240,034	240,034	240,034	240,034	240,034	240,034	240,034	240,034	240,034	240,034
Total Revenue	6,856,850	6,655,608	6,764,741	6,833,974	6,877,811	6,949,101	6,961,674	6,970,435	6,984,479	6,982,742	6,996,165	7,007,477
Expenses												
Materials & Contracts	1,570,342	1,375,766	1,375,766	1,375,766	1,375,766	1,375,766	1,375,766	1,375,766	1,375,766	1,375,766	1,375,766	1,375,766
Employee Costs	1,825,969	1,788,651	1,788,651	1,788,651	1,788,651	1,788,651	1,788,651	1,788,651	1,788,651	1,788,651	1,788,651	1,788,651
Other	1,271,697	1,374,973	1,374,973	1,374,973	1,374,973	1,374,973	1,374,973	1,374,973	1,374,973	1,374,973	1,374,973	1,374,973
Total Expenses	4,668,008	4,539,390	4,539,390	4,539,390	4,539,390	4,539,390	4,539,390	4,539,390	4,539,390	4,539,390	4,539,390	4,539,390
Net Operating Surplus (Deficit) before												
Dep'n & Finance Costs	2,188,842	2,116,218	2,225,351	2,294,584	2,338,421	2,409,711	2,422,284	2,431,045	2,445,089	2,443,352	2,456,775	2,468,087
Depreciation & Amortisation	2,099,464	2,116,000	2,159,900	2,169,326	2,190,232	2,199,658	2,209,084	2,220,510	2,229,936	2,247,412	2,256,838	2,268,064
Net Operating Surplus (Deficit)	89,378	218	65,451	125,258	148,189	210,053	213,200	210,535	215,153	195,940	199,937	200,023
Capital Grants and Other	602,563	209,198	471,300	471,300	471,300	471,300	471,300	471,300	471,300	471,300	471,300	471,300
NET SURPLUS (DEFICIT)	691,941	209,416	536,751	596,558	619,489	681,353	684,500	681,835	686,453	667,240	671,237	671,323

	Actual	Budget	LTFP									
	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Current Assets												
Cash & Investments	10,099,069	8,545,026	8,803,955	7,872,117	8,097,116	8,382,405	8,382,405	8,497,767	8,495,057	8,815,987	9,042,491	9,280,305
Receivables	263,363	263,363	263,363	263,363	263,363	263,363	263,363	263,363	263,363	263,363	263,363	263,363
Other	49,745	49,745	49,745	49,745	49,745	49,745	49,745	49,745	49,745	49,745	49,745	49,745
Total Current Assets	10,412,177	8,858,134	9,117,063	8,185,225	8,410,224	8,695,513	8,695,513	8,810,875	8,808,165	9,129,095	9,355,599	9,593,413
Non-Current Assets												
Land & Buildings	9,459,526	9,717,423	9,809,367	9,901,311	9,993,255	10,085,199	10,177,143	10,269,087	10,361,031	10,452,975	10,544,919	10,536,713
Plant & Equipment	2,481,492	2,470,444	2,479,731	2,447,238	2,428,745	2,417,252	2,406,759	2,396,266	2,404,773	2,413,280	2,401,787	2,410,294
Infrastructure	71,247,302	71,523,245	72,165,511	72,793,077	73,420,643	74,048,209	74,675,775	75,303,341	75,930,907	76,558,473	77,186,039	77,813,605
Tas Water	8,028,075	8,028,075	8,028,075	8,028,075	8,028,075	8,028,075	8,028,075	8,028,075	8,028,075	8,028,075	8,028,075	8,028,075
Total Non-Current Assets	91,216,395	91,739,187	92,482,684	93,169,701	93,870,718	94,578,735	95,287,752	95,996,769	96,724,786	97,452,803	98,160,820	98,788,68
TOTAL ASSETS	101,628,572	100,597,321	101,599,747	101,354,926	102,280,942	103,274,248	103,983,265	104,807,644	105,532,951	106,581,898	107,516,419	108,382,100
Current Liabilities												
Creditors	646,318	646,318	646,318	646,318	646,318	646,318	646,318	646,318	646,318	646,318	646,318	646,318
Provisions	696,823	696,823	696,823	696,823	696,823	696,823	696,823	696,823	696,823	696,823	696,823	696,82
Other	124,487	124,487	124,487	124,487	124,487	124,487	124,487	124,487	124,487	124,487	124,487	124,48
Total Current Liabilities	1,467,628	1,467,628	1,467,628	1,467,628	1,467,628	1,467,628	1,467,628	1,467,628	1,467,628	1,467,628	1,467,628	1,467,62
Non-Current Liabilities												
Provisions	86,262	86,262	86,262	86,262	86,262	86,262	86,262	86,262	86,262	86,262	86,262	86,26
Total Non-Current Liabilities	86,262	86,262	86,262	86,262	86,262	86,262	86,262	86,262	86,262	86,262	86,262	86,262
TOTAL LIABILITIES	1,553,890	1,553,890	1,553,890	1,553,890	1,553,890	1,553,890	1,553,890	1,553,890	1,553,890	1,553,890	1,553,890	1,553,890
	400.074.000		400.045.057		400 707 050	101 700 050	400 400 075	400.050.754	400.070.004	405 000 000	405 050 500	405 000 04
NET ASSETS	100,074,682	99,043,431	100,045,857	99,801,036	100,727,052	101,720,358	102,429,375	103,253,754	103,979,061	105,028,008	105,962,529	106,828,21
EQUITY												
Asset Revaluation Reserves	66,522,350			66,522,350								
Other Reserves	1,530,634	1,530,634	1,530,634	1,530,634	1,530,634	1,530,634		1,530,634	1,530,634	1,530,634	1,530,634	1,530,63
Accumulated Surplus	32,021,698			31,748,052		33,667,374		35,200,770	35,926,077	36,975,024	37,909,545	
TOTAL EQUITY	100,074,682	99.043.431	100,045,857	99,801,036	100 727 052	101 720 259	102 /20 275	102 252 754	103,979,061	105 028 008	105,962,529	106,828,210

APPENDI	X C - STATE	MENT OF	CASH FL	ows								
	Actual 2017/18	Budget 2018/19	LTFP 2019/20	LTFP 2020/21	LTFP 2021/22	LTFP 2022/23	LTFP 2023/24	LTFP 2024/25	LTFP 2025/26	LTFP 2026/27	LTFP 2027/28	LTFP 2028/29
CASH FLOWS FROM OPERATING												
Receipts from ratepayers & Users	4,315,623	4,085,103	4,174,473	4,237,880	4,302,683	4,368,911	4,375,065	4,381,230	4,387,408	4,393,598	4,399,801	4,406,016
Payments to Suppliers & Staff	(4,620,458)	(4,539,390)	(4,539,390)	(4,539,390)	(4,539,390)	(4,539,390)	(4,539,390)	(4,539,390)	(4,539,390)	(4,539,390)	(4,539,390)	(4,539,390)
Receipts from Government- Operating	2,339,529	2,318,505	2,318,505	2,318,505	2,318,505	2,318,505	2,318,505	2,318,505	2,318,505	2,318,505	2,318,505	2,318,505
Interest	178,701	150,000	169,763	175,589	154,623	159,685	166,104	168,700	176,566	168,639	175,860	180,956
TasWater Dividends	153,484	102,000	102,000	102,000	102,000	102,000	102,000	102,000	102,000	102,000	102,000	102,000
Net Cash Flow from Operating Activities	2,366,879	2,116,218	2,225,351	2,294,584	2,338,421	2,409,711	2,422,284	2,431,045	2,445,089	2,443,352	2,456,775	2,468,087
CASH FLOWS FROM INVESTING ACTIVITIES												
Receipts from Government - Capital	611,721	194,198	471,300	471,300	471,300	471,300	471,300	471,300	471,300	471,300	471,300	471,300
Proceeds from Sale of Assets	207,959	7,350	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Purchase/construction of Assets	(2,703,720)	(2,680,712)	(2,457,722)	(3,717,722)	(2,604,722)	(2,615,722)	(2,798,222)	(2,572,722)	(3,288,722)	(2,613,722)	(2,721,572)	(2,721,572)
Repayment of loans	26,136											
Net Cash Flow used in Investing Activities	(1,857,904)	(2,479,164)	(1,966,422)	(3,226,422)	(2,113,422)	(2,124,422)	(2,306,922)	(2,081,422)	(2,797,422)	(2,122,422)	(2,230,272)	(2,230,272)
NET (DECREASE) /INCREASE IN CASH HELD	508,975	(362,946)	258,929	(931,838)	224,999	285,289	115,362	349,623	(352,333)	320,930	226,503	237,815
Cash at the Beginning of the Year	9,590,094	10,099,069	8,545,026	8,803,955	7,872,117	8,097,116	8,382,405	8,497,767	8,847,390	8,495,057	8,815,987	9,042,491
Less FAGs received in advance		(-1,191,097)										
CASH AT END OF YEAR	10,099,069	8,545,026	8,803,955	7,872,117	8,097,116	8,382,405	8,497,767	8,847,390	8,495,057	8,815,987	9,042,491	9,280,305
Reserves (Restricted funds)	1,530,634	1,530,634	1,530,634	1,530,634	1,530,634	1,530,634	1,530,634	1,530,634	1,530,634	1,530,634	1,530,634	1,530,634
UNRESTRICTED CASH AT YEAR END	8.568.435	7.014.392	7.273.321	6.341.483	6.566.482	6.851.771	6.967.133	7.316.756	6.964.423	7.285.353	7.511.857	7.749.671

	APPEN	IDIX D - A	SSET REI	NEWAL/I	NEW								
Capex	Actual 2016/17	Actual 2017/18	Budget 2018/19	LTFP 2019/20	LTFP 2020/21	LTFP 2021/22	LTFP 2022/23	LTFP 2023/24	LTFP 2024/25	LTFP 2025/26	LTFP 2026/27	LTFP 2027/28	LTFP 2028/29
Roads - renewal	1,182,961	1,182,961	906,000	1,340,000	1,340,000	1,340,000	1,340,000	1,340,000	1,340,000	1,340,000	1,340,000	1,340,000	1,340,000
Roads- new	356,929	356,929	920,000	471,300	471,300	471,300	471,300	471,300	471,300	471,300	471,300	471,300	471,300
Bridges	15,679	15,679	45,000	100,000	1,148,000	-	-	200,000	-	805,000		180,000	180,000
Land & Buildings	366,103	366,103	200,150	200,150	200,150	200,150	200,150	200,150	200,150	200,150	200,150	100,000	100,000
Stormwater, Drainage	39,633	39,633	150,000										
P&E	591,911	591,911	208,510	137,000	335,000	363,000	373,000	273,000	311,000	222,000	372,000	380,000	380,000
F&F, Computers	30,445	30,445	50,780	9,000	23,000	30,000	31,000	31,000	50,000	50,000	30,000	50,000	50,000
Other Infrastructure	120,059	120,059	200,272	200,272	200,272	200,272	200,272	200,272	200,272	200,272	200,272	200,272	200,272
Municipal Reval			-					82,500					
Total Capex	2,703,720	2,703,720	2,680,712	2,457,722	3,717,722	2,604,722	2,615,722	2,798,222	2,572,722	3,288,722	2,613,722	2,721,572	2,721,572
Depreciation													
Roads- renewal	1,317,855	1,317,855	1,317,855	1,317,855	1,317,855	1,317,855	1,317,855	1,317,855	1,317,855	1,317,855	1,317,855	1,317,855	1,317,855
Roads - New	-	-	22,036	40,436	49,862	59,288	68,714	78,140	87,566	96,992	106,418	115,844	125,270
Bridges	204,659	204,659	204,659	204,659	204,659	216,139	216,139	216,139	218,139	218,139	226,189	226,189	227,989
Land & Buildings	108,206	108,206	108,206	108,206	108,206	108,206	108,206	108,206	108,206	108,206	108,206	108,206	108,206
Stormwater, Drainage	16,003	16,003	16,003	17,503	17,503	17,503	17,503	17,503	17,503	17,503	17,503	17,503	17,503
P&E	323,097	323,097	323,097	347,097	347,097	347,097	347,097	347,097	347,097	347,097	347,097	347,097	347,097
F&F, Computers	41,493	41,493	41,493	41,493	41,493	41,493	41,493	41,493	41,493	41,493	41,493	41,493	41,493
Other Infrastructure	66,151	66,151	66,151	66,151	66,151	66,151	66,151	66,151	66,151	66,151	66,151	66,151	66,151
Municipal Reval amortisatio	22,000	22,000	16,500	16,500	16,500	16,500	16,500	16,500	16,500	16,500	16,500	16,500	16,500
Total Deprteciation	2,099,464	2,099,464	2,116,000	2,159,900	2,169,326	2,190,232	2,199,658	2,209,084	2,220,510	2,229,936	2,247,412	2,256,838	2,268,064



Policy No. 2013-05

Use of Council Vehicles Policy

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1. Purpose.

The purpose of this policy is to ensure that Council maintains a suitable fleet of vehicles that contributes positively and effectively to the work performance of the Central Highlands Council.

2. Legislative Requirements, Regulations and Associated Council Policies, Procedures and Guidelines.

This policy should be read in conjunction with applicable, appropriate and associated Legislative Requirements, Regulations, Council Policies, Procedures and Guidelines. These include but are not limited to:

- The Local Government Act 1993;
- Local Government (General) Regulations 2015 (SR2015, No. 37);
- Risk Management Policy and Strategy;
- Staff Induction Procedures;
- Duty Statements (Job Descriptions, etc.);
- Delegations of Authority;
- Policy 2015-06 Tendering and Procurement Policy.

3. Glossary of Terms.

3.1 This Policy

2013-05 Use of Council Vehicles Policy February 2019.

3.2 Council

Central Highlands Council.

3.3 Contractor

A contractor is defined as a person or organisation, external to Council, engaged under a contract for service (other than as an employee) to provide specified services to Council. A Contractor generally works under the supervision of a Council Manager to provide services which are not readily available in the Council.

3.4 Procurement

The entire process by which all resources are obtained by Council, including planning, design, standards determination, specification, specification writing, selection of suppliers, financing, contract administration, disposals and other related functions.

Further guidance on Council's tendering processes are contained in Policy 2015-06, Tendering and procurement Policy, especially sections 3.9 – Tenders, 3.10 Standing Tenders and 3.11 Multiple Use Registers.

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3.5 Tendering and Procurement Thresholds

There are a number of tendering and procurement thresholds that require different levels of involvement in planning and executing the purchase. The following table refers to the thresholds and summarises what purchasing method Council utilises based on the total dollar value of the purchase.

Procurement Value		Minimum Require	ement	
Under \$5,000	One ve applicable Council appropria	Purchase Orde		Orders over \$1,000 to be authorised by applicable Manager
\$5,001 to \$10,000		e. Purchase Orde	isiness, if	To be authorised by applicable Manager.
\$10,001 to \$30,000		e. Purchase Orde	isiness, if	To be recommended by applicable Manager and authorised by Deputy General Manager or General Manager.
\$30,001 to \$99,999		Purchase Orde	ousiness, if	To be recommended by applicable Manager and authorised by Deputy General Manager or General Manager.
\$100,000 up to \$249,999	beneficial tender at regional n	vill, where it co or desirable, adve t a minimum in ewspaper.	ertise each the local	Contracts to be awarded and signed by the General Manager after acceptance and approval by Council.
	considere To be a Website. Council to	vertising may be d appropriate. dvertised on th o seek at least o al business, if appl	e Council ne tender	
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Use of Council Vehicles Policy

\$250,000 or over	Council must advertise each tender at	Contracts to be awarded and				
	a minimum in the local regional newspaper and advertise on the Council website.	signed by the General				

3.6 Confidentiality

Council treats information provided by suppliers as confidential and will not provide this information to unauthorised persons.

3.7 Sensitive Information and Conflicts of Interest

Council employees, contractors, sub-contractors, consultants and elected members are reminded that the best interests of the Council are fundamental and are to be served at all times. Notifications of conflicts of interest (actual and perceived) are to be advised and recorded as early as possible. Disclosure of sensitive and confidential information, including prices, terms and conditions are strictly commercial in confidence and their unauthorised disclosure, particularly with a motive to provide personal financial gains or benefits is contrary to the principles of ethical behaviour and may result in dismissal, prosecution or other sanctions.

3.8 Disposals and Trade-Ins

The disposal or trade-in of obsolete assets (including motor vehicles) is an area that can be open to criticism and one in which the possibility of unethical behaviour can be perceived and needs to be controlled with guidelines and processes that will prevent or lessen unfounded criticism or claims. All disposals, write-offs, cannibalisation and trade-ins are to be considered on a case by case basis and are to be authorised by the General Manager and recorded in a Disposals Register.

Disposals of assets of considerable value or high interest items will be subject to disposal either through a tender process or be traded-in as part of the procurement deal, whichever is the most cost-effective to Council.

3.9 Disposal of Vehicles to Staff, Contractors, Sub-Contractors, Consultants and Elected Members.

Subject to the terms, conditions and provisions contained within this Policy and 2015-06 Tendering and Procurement Policy, staff, contractors, sub-contractors, consultants and elected members are not excluded from tendering or applying for the purchase of items to be disposed of.

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4. Policy Statement.

The General Manager will determine vehicle requirements, allocations, types, categories of use, models, colours and accessories applicable to employees and/or positions, taking into consideration industry and market trends and whole of life costing. Advice will be sought from the Works Manager as appropriate and approval is to be obtained from the Plant Committee prior to the procurement of the vehicle.

In determining vehicle allocations and vehicle use a flexible approach to the changeover of Council's vehicle fleet will be observed with due consideration being given to the make and model of vehicles and the kilometres travelled, to ensure the most cost effective outcome for Council at any given time.

5. Acquisition and Disposal.

The Central Highlands Council will apply a structured test based on four key sustainability principles when acquiring and disposing of motor vehicles:

Economic Criteria	Whole of life costs shall be estimated from best available data and highest preference shall be given to the vehicle with the lowest optimised whole of life cost.
Functional Criteria	Highest preference shall be given to the vehicle that best fits the functional requirements of the position for which the vehicle is being acquired.
Social Criteria	Highest preference shall be given to vehicles that confirm a responsible, accountable image compatible with Council's values.
Environmental Criteria	A recognition of the CO2 emissions allocated to the vehicle.

6. Home Garaging.

All Council vehicles that are not private use are to be garaged at a Council Depot. The Works and Services Manager or the General Manager has authority to approve the home garaging of a Council vehicle when it is required to go directly to a job.

Home garaging includes private use by an employee who occupies a position or is employed in a capacity, which by nature of the specialist employment supervisory or management responsibility necessitates immediate access to a vehicle or vehicles after hours on a frequent basis.

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7. Public Visibility.

The General Manager's vehicle is not required to have a Council logo displayed.

All other Council vehicles are to display the appropriate Central Highlands Council logo during normal working hours. Logos are to be permanently fixed to all vehicles except that Departmental Managers' vehicles may be fitted with magnetic logos.

No other decals or signage are to be displayed or attached to the vehicle unless written permission has been obtained from the General Manager.

8. Categories of Use.

There are 5 distinct categories of use relating to Council owned motor vehicles. As discussed in Section 4, the General Manager will negotiate the appropriate category of use with applicable employees.

The 5 categories are:

Category A Up to a maximum 10,000 kilometres per annum private use of the vehicle within Tasmania.

This includes private use during annual and sick leave, providing that:

- To be approved by the General Manager.
- Fuel costs during annual and sick leave are to be met by the employee.
- Private use for periods of sick leave exceeding 2 weeks per year requires Council approval.

Category B Up to a maximum 5,000 kilometres per annum private use of the vehicle within Tasmania.

This includes private use during annual leave, providing that:

- To be approved by the General Manager.
- Fuel costs for all private use are to be met by the employee.
- This category may include a weekly fee determined by Council from to time.

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Category C	Occasional private use of vehicles.	
	To be considered on a case by case basis within the following criteria:	
	 To be submitted for approval by the General Manager or Works Manager. 	
	• This category will incur a per kilometre charge as per the Local	
	Government Industry Award 2010 (currently \$0.78 per kilometre)	
Category D	Use of vehicles and plant during the course of employment, including commuting use.	
	No private usage apart from specific authority for commuting purposes:	
	• To be approved by the General Manager.	
	No fees or reimbursements are required.	
Category E	Unique conditions.	
	Special conditions relating to motor vehicle usage contained in contractual	

• To be approved by the General Manager.

arrangements, conditions of employment or employee contracts:

9. Agreement for use of Council Vehicles

- 1. Name
- 2. Position
- 3. Address
- 4. Category of Use (Delete as appropriate)

Category A Category B Category C Category D Category E Category F

5. I hereby acknowledge that I am permitted to use a Council vehicle in accordance with the conditions as set out in the category description detailed in Section 8 of this Policy.

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- 6. The vehicle may only be driven by an Authorised Employee of the Council holding a current Tasmanian drivers licence. However, in the event of an emergency, the vehicle may be driven by a person holding an open licence authorised by the employee.
- 7. In the event of the Employee's drivers licence becoming invalid or cancelled for any reason, this agreement shall be void and the Employee is no longer entitled to drive a Council vehicle.
- 8. An Employee convicted of drink-driving in a Council vehicle and whose licence to drive is consequently endorsed may lose the right to drive a Council vehicle.
- 9. In the event of an accident involving a Council vehicle, the Employee must inform the General Manager as soon as practicable.
- 10. If home garaged, the vehicle is to be brought onto the job every normal Council working day for which the employee is required to work and be used for all organisational duties.
- 11. Any service difficulty or fault should be reported to the Council's Works Manager or Supervisor who will arrange periodic workshop servicing, maintenance and any repairs necessary.
- 12. All employees to whom vehicles are allocated are responsible for the care of their vehicle, including interior and exterior cleaning and checking that normal running items such as fuel, lubricant, radiator and battery are checked and duly attended to. It is an expectation that Category A and B users will attend to these functions during their own time.
- 13. Modifications (including the fitting of towbars) cannot be made to the vehicle without the approval of the Mayor and General Manager.
- 14. The vehicle will not be used to compete in any car rally, competition or for any illegal purpose.
- 15. The agreement may be terminated by either party on three months' notice or as mutually agreed, but will otherwise cease on termination of employment with Council.
- 16. Failure to comply with the terms of this policy may result in termination of this agreement.
- 17. Fuel cost for private use is to be met by the employee in accordance with the designated category provisions.

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- 18. A vehicle log book is to be kept which clearly records private, commuting and work use of the vehicle.
- 19. For every kilometre of private use exceeding the stated maximum for the category (5,000 or 10,000 kilometres per annum) a rate per kilometre will be agreed upon.
- 20. Council Logo is to be displayed prominently on both sides of the vehicle at all times during working hours in accordance with the terms outlined under Section 7 of this policy Public Visibility.
- 21. I agree to be bound by and adhere to these conditions of the use of a vehicle.

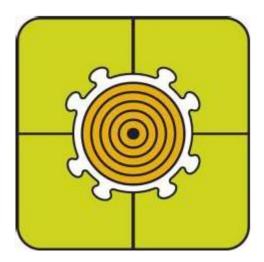
Signed		Date	
	Employee		
Signed		Date	
	General Manager		

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AKSForest Solutions

Forest Management Plan

January 2019





1/167 Westbury Rd, Prospect Tas 7250

Telephone:(03) 6344 1143 Mobile:0419 573 205 Fax: (03) 6344 5482 E-Mail: astonjek@bigpond.net.au www.aksforestsolutions.com.au

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AKS Forest Solutions acknowledges and pays respect to the Tasmanian Aboriginal people as the traditional custodians and original owners of the land which we manage.

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AKS Forest Solutions (AKSFS) is a responsible forest manager and wood broker operating in the private forest sector in Tasmania. We are committed to providing our clients with a quality outcome in terms of service, forest management and financial returns. We operate as a wholly Tasmanian owned business engaging respected and skilled employees and contractors able to deliver sustainable forest management while optimising economic outcomes and maintaining a profitable business.

As evidence of our policy of continual improvement AKSFS has maintained certification within the Responsible Wood Certification Scheme to the Australian Standard for Sustainable Forest Management (AS4708) for *Forest management and brokers for native forest and plantations in Tasmania,* providing certification for the properties under our management that form our Defined Forest Area, (DFA).

Purpose

The purpose of this Forest Management Plan, a strategic planning framework, is to communicate management objectives and principles as applied to AKSFS's dispersed DFA and the systems and procedures to achieve them.

This is the oversight document supported by the Tasmanian Forest Practices System. The Tasmanian Forest Practices System works in an adaptive management framework taking into account social, economic, environmental and cultural outcomes of its decision-making processes. It is supported by legislation, the *Forest Practices Act 1985*, a code of practice, the *Forest Practices Code 2015*, a regulator, the Forest Practices Authority, a specialist group, on ground research, trained and appointed planners and supervisors, Forest Practices Officers (FPO's) and detailed operational plans, Forest Practices Plans, (FPP's).

Stakeholder input was initially sought to review the draft Forest Management Plan. Stakeholder feedback has been included in this document and a major stakeholder review will be undertaken every five years. Stakeholder engagement and relationships of interested and affected parties is an ongoing process at multiple levels from field operations and neighbours to Government departments and portfolio Ministers.

Scope

AKS Forest Solutions Pty Ltd is certified to AS4708:2013 for:

Forest management and brokers of native forest and plantation.

The Defined Forest Area is listed in the 'DFA Register' and maps and audit report summaries are available on our website <u>www.aksforestsolutions.com.au</u>

The scope of the Forest Management Plan encompasses the requirements of the Australian Standard for Sustainable Forest Management Tasmania's legislative and planning framework. It has been designed as appropriate to scale. This document is the oversight

document for AKS Forest Solutions Pty Ltd. Forest Management System. AKSFS AFS certification scope covers both native forest and plantations.

Forest Policy

AKS Forest Solutions is a leading forest manager in the private sector providing a complete forest management solution from the forest to the market. We provide optimal market based results delivering quality sustainable forest management, product differentiation and economic outcomes for forest growers in a safe working environment. We are regionally based supporting local business and communities.

AKS Forest Solutions manages native forest and plantations on principles of sustainable forest management taking into account social, economic, environmental and cultural outcomes of our decision-making processes providing landowners with confidence in long term outcomes. We do this by being committed to:

Engage with interested and affected stakeholders in open and authentic communication proportionate to scope, scale and intensity of forest operations.

Compliance with legislated and other external requirements relating to our business.

Operations planned in cooperation with landowners' objectives, regularly monitored and periodically audited for compliance with the Forest Practices Code and the Australian Standard for Sustainable Forest Managment.

Conservation management of natural and cultural values delivered through preplanning and operations implementation.

Taking account of social, economic, environmental and cultural outcomes

□ *Monitoring and regular review of our system to facilitate its continual improvement*

□ Engaging appropriately qualified staff and contractors and providing them with training opportunities, ensuring effective induction, safety awareness and compliance.

Derivision of resources and training necessary to meet the Standard

□ Non-conversion of native forest.

and

Date: 30th July 2016

Tony Stonjek Director Forestry

Planning

AKSFS Forest Management Plan is the oversight document that is used to guide decision making and planning throughout the full range of forest operations. The Forest Management Plan is subject to annual internal review.

Forest management and harvest planning must comply with the *Forest Practices Act 1985* and the *Forest Practices Code 2015*. The forest practices system fosters a co-regulatory approach based on self-management by forest owners and the forest manager. Together they are responsible for ensuring that forest practices comply with the Code through the development of a certified forest practices plan.

Forest Practices Plans (FPPs) document and plan proposed forest operational activities at a detailed level. Proposed activities are to meet or exceed all legislative requirements for forest operations. FPPs have a timeframe in which they are active, and only one FPP may be active over a given geographical area at one time. FPPs are prepared for all road construction, quarrying, harvesting and forest establishment operations. These plans specify the significant environmental, cultural and heritage values that occur on the plan area and the prescriptions developed to manage and protect them.

Resource Description

We operate state-wide on predominantly privately owned native and planted forest. This provides a very varied resource in terms of forest communities, species planted and past management regiemes. AKSFS certification to AS4708 covers both native forest and plantations. Our DFA consists of management units where we have a contractual commitment to management and harvesting that is released after the successful certificate of completion. Properties are added to our DFA once a legal commitment has been received from the landowner and the proposed area has been inspected for natural and cultural values, sustainability of forest management including financial returns and a provisional boundary has been established.

Our Defined Forest Area, DFA

Our DFA consists of a semi-permanent estate of privately owned land where AKSFS retains a legally definable management control. Typically, this management control will be in the form of a contractual agreement and a current Forest Practices Plan.

The size and location of our semi-permanent estate is constantly changing. These changes occur in response to securing management control and approval of Forest Practices Plans. When AKSFS' management control of the land expires, the area is removed from the semi- permanent estate and no longer contributes to the makeup of the DFA. Importantly, however, areas within the semi-permanent estate identified as being environmentally sensitive and reserved as part of an approved but now expired Forest Practices Plan retain the status of "vulnerable land" as defined within the *Forest Practices Act 1985* and have ongoing regulatory protection.

Our DFA, a semi-permanent forest estate is updated bi-annually or when significant changes occur; the certification body will be notified of significant changes.

Native Forest

The native forest estate in Tasmania is spread across various tenures with approximately 50% of the available production native forest existing on private property. Native Forest vegetation varies from mixed aged dry eucalypt forest generally at lower elevations to high altitude wet sclerophyll forests.

Sustainable forest management

Tasmania's private native forests are managed under *the Forest Practices Act 1985* and *Forest Practices Code 2015* in conjunction with other environmental and planning legislation. The suite of legislation provides the platform for sustainable management of our forests for the long term supply of wood products, non-wood forest products and environmental services. A number of silvicultural systems have been developed for the management of different forest types, including clear-fell systems in even aged wetter forests to selective harvesting systems in lowland dry forests and shelter-wood systems in higher altitude forests. We apply the most appropriate silviculture systems informed by research and operational outcomes. The majority of AKSFS native forest management uses selective harvesting systems.

Stand Growth Rates

The growth rates of the native forest we manage are generally not known as the forests have had a history of variable management often resulting in a degraded state. We aim to improve long term productivity by using the most appropriate silviculture in the management and harvesting of the forests. Plantations that we manage will be measured for an estimate of growth unless recent information has been provided. This will inform the best silviculture going forward. Modelling provided by Private Forests Tasmania (PFT) through the Farm Forestry Toolbox and PFT's detailed analysis delivers a consistent data set. Approximately 80% of private non-industrial plantations have had input from Private Forests Tasmania, many having been regularly measured.

Plantations

Harvesting plantations tends to be a highly mechanised operation that generally requires a minimum

plantation area of 10 ha to provide good returns to growers. AKSFS has worked regularly with Private Forests Tasmania to assist private growers with thinning operations of smaller areas to provide a well managed plantation outcome.

□ Hardwood

The hardwood plantation estate consists of *Eucalyptus nitens* and *Eucalyptus globulus* plantations of various sizes from a few hectares to larger estates. While most plantations have been planted for pulpwood, some have been high-pruned to produce peeler logs. As different product opportunities arise with favourable markets, these will be factored into the log optimisation.



□ Softwood

The softwood estate is dominated by *Pinus radiata* plantations of various scale from a few hectares to larger estates and with differing past management prior to acceptance to our DFA. Operations include thinning and final crop harvesting with product optimisation being an essential outcome.

Engagement Process

AKSFS engages with private land owners through many different forums and media including direct advertising in regional newspapers, rural press and web based listings. We play an active role in private landowner education through field days, agricultural shows and dinners. Perhaps the most consistent means of referral and engagement is by word of mouth, discussion amongst landowners who have had AKSFS undertake operations on their property and who make recommendation to neighbours and friends.

Once a land owner makes initial contact and expresses interest in pursuing an operation, a letter of introduction is sent describing AKSFS approach and basic operations. If a landowner wishes to take it to the next step a site inspection is undertaken to ensure that a sustainable outcome can be achieved. An assessment of harvestable volumes is made and a proposal is prepared with pricing of products to optimise returns. Depending on the scale of the operation either a letter of acceptance or a formal contract is sent to the landowner. This is the method of securing engagement for further work to be

undertaken and subsequent addition of the agreed area to our DFA.

Once an agreement is signed the in-depth forest practices planning process is initiated. This requires discussion with the landowner regarding their management objectives, further site visits, liaison with the Forest Practices Authority, the purchasing companies and contractors, neighbours and local government.



AKSFS demonstrates management control for private property wood in a number of ways. First, via a signed commitment from the landowner, then as the Applicant to the FPP. Management control is designated in FPP's through the "Applicant" of the plan. The applicant is the person who applies to the Forest Practices Authority (FPA) for the FPP to be certified. Once certified the applicant can apply for a variation to that FPP, and is also responsible for the Certificate of Compliance to be lodged at the end of each discrete operation to ensure compliance has occurred. It is AKSFS policy to be named as applicant on all FPP's to provide secure outcomes and compliance with the Australian Forestry Standard.

Property Planning

Forest management planning and forest harvesting is carried out in accordance with the Forest Practices Code. AKSFS has a standardised planning procedure for the development of FPP's that uses a planning checklist as a review prior to certification of the plan. All areas to be harvested undergo an assessment, including searching available conservation data bases to identify any significant natural and cultural values that require specific management. Threatened fauna and flora species and communities require particular management; an example is the wedge tailed eagle. Wedge tailed eagle nests require protection by law and at least a 10 ha reserve is to be established. There are also specific rules about operations near occupied sites and during the breeding season. Expert systems have been developed to assist with planning and the FPA web site has many planning tools and technical notes that are formally part of the Forest Practices Code.

Site specific plans (FPP's) are developed and a detailed map produced that includes areas reserved from 348

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Revision 30/06/19

harvesting to protect natural and cultural values and identifies harvesting areas. The development of the FPP requires advance notification of affected local government and neighbours. Private forests that have been declared Private Timber Reserves do not require development approval from local government. AKSFS contacts local government as a standard procedure to maintain our good working relationship regardless of the planning schemes zoning of forest operations as '*permitted as of right*'. Local governments are notified of likely log truck movements, identified school bus routes and times and other council considerations. All private forests, native and plantation outside Private Timber Reserves and '*permitted use zoning*', require local government approval prior to the certification of the forest practices plan and before commencement of operations.

Natural Values Summary

Assessment of Coupe Natural and Cultural Values

All areas to be harvested undergo assessment to identify significant values within or adjacent to the coupe boundary. This process can lead to a considerable area being excluded from harvesting and/or changes to planning to manage identified issues. Natural and cultural values of the site which are assessed during coupe planning are:

Flora Forests and grassland communities identified as having high conservation value. Assessment of flora values includes mapping of the forest communities present in the coupe area and the presence or potential presence of any threatened flora species

Fauna Forest and grassland communities identified as containing or potentially containing threatened species are managed to ensure the maintenance of native fauna habitat

Cultural Heritage. Areas identified as having Indigenous or historic heritage values. Examples include Aboriginal artefact scatters or settler's huts that require specific management prescriptions.

Earth Sciences. Areas containing significant landforms or limestone karst features requiring protection and landslip hazards needing specific management

□ *Soil and Water* The protection of forest soils, minimising soil degradation by inappropriate operations is identified and avoided. Buffer zones adjacent to streams, rivers and other water bodies are retained to protect water quality via filtration zones adjoining forest operations. By providing shade, these buffer zones also assist maintaining aquatic ecosystems and riparian values

Visual management. Areas are managed to retain their important visual or social landscape values.

Operational Implementation

Prior to commencing operations the forest practices plan is signed off by all required parties and must be lodged with the FPA. All boundaries and reserves are clearly marked in the field prior to operations commencing. Before operations begin, the company's area forester undertakes a formal on-site briefing of the principal harvesting contractor and appropriate employees about the plan and any special requirements. At the same time The Forest Operations Safety Plan that identifies any known hazards is discussed and agreed.



Operational audits are undertaken on a monthly basis, the results are discussed with the harvesting manager, any non-conformances are noted and corrective action process to repair or make-good is agreed. Information from operational audits is analysed and fed back into the quarterly management review meetings to provide for continuous improvement and identify trends.

Product Segregation

AKS Forest Solutions is a forest manager and timber broker who seek to find the optimal value in managing forests, both native forests and plantations, based on the landowners objectives, legal requirements, prescribed silviculture and prevailing markets. In most circumstances this will mean maximizing value achieved from harvesting, using the most efficient harvesting systems, cost effective legal cart routes and by careful within-log product optimisation and log segregation. Depending on available markets we are able to segregate into the following products: sawlogs of various categories, peelers, veneer logs, special species timber, hydro poles, chopping blocks as well as bridge logs and piles.

There may be occasions when the most cost effective and environmentally sound outcome is to thin to waste, to maintain the health and vigour of the forest and optimise longer term economic returns.

Non-Wood Values

Significant non-wood products are identified at the time of field inspection and discussed with the forest owner. Management of products such as honey usually requires the input of expert management and would be undertaken outside the timing of forest harvesting. The development and identification of non-wood values is an evolving area of knowledge, skill and markets. As opportunities arise for sustainable management of non-wood values they will be discussed with the forest owner and where accepted and appropriate will be incorporated into the forest management plan.

Monitoring for Compliance and Continual Improvement

Comprehensive systems are required to ensure that forest management embraces the principal of continual improvement. This includes the use of effective stakeholder participation and strong management performance. It also enables and encourages improvement to forest management practices and outcomes based on learning and experience.

Our operations are audited internally and externally. The internal audit system routinely monitors all aspects of our business, including operational, our forest management system and safety audits. We regularly monitor and audit all of our operations and Forest Practices compliance audits are undertaken at the end of each discrete operational phase and a certificate of compliance lodged if compliant or following appropriate remedial action. Our internal monitoring and audit system is based on check lists of compliance against the FPP and other legislative requirements. It also includes corrective actions, agreed to by the principal contractor's representative and area forester to repair or make good. The audit is likely to be undertaken at least once per month. The results of these audits are recorded and entered into a system to track any trends that may be occurring with the management unit or by a particular contractor. The analysis of results is reported at quarterly review meetings.

Our Forest Management Plan (FMP) and system is reviewed at our annual review meeting. This review takes note of any trends, negative or positive, that will lead to



improvement in our systems. Our FMP is externally reviewed through the Responsible Wood certification scheme and the plan itself will be subject to a stakeholder review every 5 years.

External audits are undertaken by the Forest Practices Authority and the Certification Body in relation to the Australian Forestry Standard. The Forest Practices Authority undertakes an annual audit of 15% of all forest practices operations throughout the State.

Legal Requirements

Forest management and forest practices in Tasmania that occur in native forest or plantations on private land are governed by many levels of regulation. This includes local planning schemes and regulations, State laws, regulations and policies that are influenced by Federal legislation that is in turn affected by International Law and Conventions that have been ratified by the Australian Government. Of overriding importance are the Forest Practices Act 1985 and the Forest Practices Code (2015).

Appendix 1 lists a hierarchy of conventions, policies, codes of practice, and legal requirements to undertake forest operations within Tasmania. It identifies the means to achieve compliance.

Local Government

AKSFS works across Tasmania and consequently is directly involved with a number of municipalities. We strive to foster good working relationships with local government who are one of our primary stakeholders. Local government interactions relate to road use and maintenance, log truck traffic, school bus routes and times, planning permits and development applications.

Access and Security

Access and required security for properties is negotiated with the landowner. Where the land owner does not live on site, AKSFS and its contractors are responsible for ensuring gates are locked and security is maintained.

Forest Management Plan

AKS Forest Solutions manages its forestry business along 4 key objectives that provide;

- □ Sustainable Operations
- □ Natural & Cultural Values Maintenance and Protection
- □ Personnel, Social, Community
- □ Risk Management

Objective 1: Sustainable Operations

Our forest harvesting operates on the principles of sustainable forest management with the ultimate aim of maintaining all ecological services and providing future generations with a viable forest estate. The Forest Practices System is fundamental to all forest operations in Tasmania, supported by research into appropriate silvicultural management systems, biodiversity, geology, cultural history and landscape management.

A sound science and systems base provides the framework in which forest harvesting and management operations are conducted. The engagement of professional planners, managers and skilled contractors ensures the highest probability of a quality outcome. Another important contributor to success and sustainability is the financial and economic outcomes delivered to landowners and communities by well planned and managed forest operations.

Native Forests

Silviculture is the active management of forests at the stand or coupe level. The selection of the most appropriate silviculture system is integral to the sustainable management of native forests. Tasmania's native forests vary from tall wet eucalypt dominated forests, dry sclerophyll forests to higher altitude

eucalypt wet and dry forest.

AKSFS manages a broad cross section of these forest types. There many different forest communities, some significantly reduced in size due to clearing and change of land use. AKSFS predominantly manages drier regrowth forest. Tasmania's Permanent Forest Estate Policy ensures that forest cover is maintained at 95% of the 1996 level across the State and applies to forest community extent within bioregions.

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The use of appropriate silviculture ensures that the productivity of the forest is maintained. Combined with the requirements of the Forest Practices Code, this provides that principles of sustainable forest management are applied throughout planning and operational phases

The regeneration requirements of native forests varies with the type of forest and silviculture system applied. Wet eucalypt forests require some form of catastrophic event, usually a clear fall and burning regime followed by seeding, whereas drier forests tend to be multi-aged shade tolerant eucalypts that regenerate by seedling and advanced growth retention. Monitoring of the success of regeneration is a requirement of the Forest Practices Code and is undertaken by AKSFS at 1 year post harvest, a discrete

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operational phase requiring a certificate of compliance. Management of native forests could be termed organic forestry as there are virtually no chemical inputs and the systems tend to reflect natural disturbance regimes.

Plantations

The plantations that we manage are typically monocultures of softwood or hardwood species. Plantations are of various ages and have had differing stand management when they are bought into our DFA. AKSFS intends, where appropriate, to improve stand vigour and tree health by thinning, subject to stand age and height.

Softwood

The softwood plantations are predominantly *Pinus radiata* with some minor exceptions that may include Douglas Fir, *Pseudotsuga menziesii*, Redwood, *Sequoia sempervirens* and various Cypresses including *Cupressus macrocarpa*. The softwood plantations are generally managed for the highest wood-quality outcome. This regieme may take in excess of 25 years to produce a marketable sawlog. The management required to achieve this may vary with site, from knot control, multiple thinning regimes to high pruning and thinning. Softwood plantations grown for pulpwood are predominantly *Pinus radiata* on poorer sites.

Hardwood

Hardwood plantations are dominated by eucalyptus species and are predominantly grown for fibre and

consist mainly of Blue Gum *Eucalyptus* globulus at lower elevation and Shining Gum, *Eucalyptus nitens* on other sites. Rotation lengths are site dependent and vary from 12 to 25 years. Some plantations have been high pruned and require thinning to produce peeler logs. Sustainable management of these plantation resources by AKSFS includes thinning to increase stand vigoura and health or final crop harvesting with advice on planting options for future rotations.

Objective 2: Natural and Cultural Values Management and Protection



Conservation of Natural and Cultural Values

The identification of significant natural and cultural values is a key component of Tasmania's highly regarded forest practices system. Together with the protection of threatened species, communities and habitat, water quality, soils and geology of significance, visual issues and cultural values the system ascribes a high level of specialist input through development of expert systems and conservation management prescriptions. The net effect is a considerable reservation area on each property set aside to protect natural and cultural values.

The planning process of Tasmania's Forest Practices system requires identification of natural and cultural values through interrogating available data bases, site inspections and specialist input. This process involves initial interrogation of data bases to identify threatened vegetation communities, known existing threatened flora and fauna communities and species, likely habitat, known cultural heritage sites, potential

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354 Version 6.0 aboriginal artifacts, geological, soil & water and landscape values and visual management. Site assessment further refines this and expert advice may be required to develop a management prescription within the FPP.

The planning prescriptions of the Forest Practices System; use of expert systems, specialist site visits and prescriptions cover a number of criteria of the Australian Forestry Standard 4708:2014 including: C3 Biodiversity Values, C5 Forest Ecosystem Health, C6 Soil and Water Resources and C8 Cultural Values, see Appendix 4 (La Sala 2012).

Flora

Tasmania's forests contain a wide diversity of native plant communities reflecting the variety of environments found in the state. Forest communities range from the dry eucalypt forests and woodlands in the east of the state, to the tall wet forests found in the higher rainfall areas in the west and south of the state. Native non-forest vegetation (e.g. moorland, heath, wetland and native grassland) may be associated with native forests (and sometimes plantations).

The FPA has developed a comprehensive Forest Botany Manual that assists planners identify species and communities at risk. Legislation has been enacted at the Commonwealth and State level to provide protection. The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* lists vulnerable, endangered and critically endangered flora species that are protected by that Act.

Threatened native vegetation communities include plant communities that are naturally rare as well as communities that were once widespread, but are now significantly depleted because of clearing over the last two hundred years. Threatened communities, both forest and non- forest, are listed on the Tasmanian *Nature Conservation Act 2002* and their protection is achieved through the Tasmanian Permanent Native Forest Estate Policy, *the Nature Conservation Act 2002* and the *Forest Practices Act 1985*. (FPA 2013)

Cross pollination and hyrbidisation from planted exotic eucalypts poses long term issues to the genetic integrity and diversity of our local eucalypts. The FPA Flora Technical Bulletin 12 provides a comprehensive insight and guiadance on the risks involved in plantation species hybridising with adjacnet native species. The FPA is to be notified of concerns of plantation proximity to vulnerable communities.

Fauna

The management of threatened fauna species in Tasmania is covered by legislation and processes that include the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, the Tasmanian *Threatened Species Protection Act 1995*, the *Tasmanian Nature Conservation Act 2002*, and the Tasmanian *Regional Forest Agreement 1997*. These recognise that a variety of mechanisms are needed to achieve ecologically sustainable forest management with respect to fauna species of high conservation significance. (FPA 2013)

Fauna evaluation is undertaken as part of the biodiversity assessment of harvesting units. If known localities or suspected habitat of priority species is identified the Threatened Fauna Adviser, an expert systems tool is consulted for recommended action. Examples often managed by AKSFS include wedge tailed eagles nest identification and management prescriptions that include a minimum of 10ha reservation and no-activity times during the nesting season.



Earth Sciences

Soil, water quality and flow and geomorphology special values are taken into account to prevent unacceptable erosion rates; maintain water quality and stream flow for ecological, social and economic reasons and to prevent damage to sites of special scientific interest. The FPA earth sciences process for evaluation of special values provides for protection of soils by identification of the geology and soil erodibility class. This triggers management prescriptions to minimize the risk and protect the soil, for example, soil of high erodibility class, landslip hazards and or karst will require specific prescriptions in the FPP.

Water quality is protected by a number of planning and operational measures including the identification of stream class and the marking of the appropriate width streamside reserves. These reserves make up the most extensive reserve area in our proposed DFA. Wet weather provisions are in the FPC to minimise the runoff of turbid water. These procedures include operational shutdowns, gripping of snig tracks and firebreaks, road construction and construction of drainage to prescribed standards.

Cultural Heritage

Cultural heritage refers to those places and sites that have been passed down to us from the actions of people in the past, both Aboriginal and European. Historic use of the forests will be considered during all stages of forest management.

The Forest Practices Authority has developed a comprehensive cultural heritage management system that provides practical guides on how to implement this framework. It highlights the need to assess the heritage values within the area covered by the operation in the planning phase. It also provides tools to be used by Forest Practices Officers including instructions on how to:

- \Box record the sites located
- \Box assess potential impacts
- □ apply planning tools for management options
- incorporate heritage management into forest practices plans (FPPs)
- ensure forest operators understand their responsibility in individual coupes
- □ monitor, evaluate and assess compliance with stated management prescriptions.

AKS Forest Solutions assesses each area for its cultural heritage using the approach developed by the FPA. Areas identified as important are accorded reservation based on prescriptive measures.

Visual Management

Application of the FPA's visual management system will be undertaken where visual sensitivity is important. The purpose of the analysis and prescriptions is; firstly, to ensure that forestry activities, where visible, are well integrated into the landscape scene; secondly to ensure that the degree of visual change is appropriate to the character of the scenery and the public viewing circumstances; and thirdly, to try to limit or avoid visual exposure and impact.



Monitoring

Operations monitoring is undertaken on a regular basis. Feedback and corrective actions are used to improve operational outcomes. Non-compliances identified have corrective actions agreed between the contractor's representative and the Area Forester. Corrective action are recorded on a register with closure dates and outcomes. This information is reported at regular management meetings and the annual system review meeting. Forest Practices audits are also undertaken and contribute to monitoring operations performance. The Forest Management System is also monitored from an internal audit of the system with its own review process.

Performance Reviews

Performance reviews are essential to the concept of continual improvement. The review process for AKSFS involves regular reviews, reporting and feedbacks into the annual management review. The agenda of the annual management review meetings is templated to provide consistency and actions are fed back into the system to provide a culture of continual improvement. The agenda picks up on work, health and safety, monitoring reports, operations, wood flows, market changes and opportunities, local Government relationship and issues, neighbour/stakeholder issues and research and development. The supporting science and operations improvements can come from a variety of sources including; attending field days, conferences, FPA and other training. Other regular and useful sources of review that are consulted include the Institute of Foresters Journal, The Grower, the journal of Australian Forest Growers, Timber Industry News, Daily Timber and Friday Offcuts.

Objective 3: Personnel, Social, Community

Work, Health & Safety

The well being and safety of all staff, contractors and the public is of primary importance. The *AKS Forest Solutions Safety Policy* is the key document establishing safe work practices and a safe working environment for staff, visitors, contractors and clients. AKSFS prepares a Forest Operations Safety Plan (FOS Plan) of all its operations prior to commencement and conducts regular audits of operations that include a safety review. School bus routes are identified and bus times recognised and honoured by a no-cart period for log trucks.

The Forest Safety Code (Tasmania) 2007 has been recognised unchanged by the new *Work Health and Safety Act 2012*. The code addresses many safety issues within the format of 'general principles of safety'; these principles identify hazards that occur across a number of forest operations. This forms the basis of AKS Forest Solutions FOS Plan and safety management system.



Regional Development

AKSFS contributes to regional development

through the use of local forest contractors who are substantial players in regional economies. These contractors provide significant income to other service providers including transport, servicing, fuels, oils and spare parts. The wood produced from operations flows to businesses that operate within Tasmania.

The director of AKSFS is actively involved in the Australian Forest Growers Tasmanian chapter, a member of the Institute of Foresters of Australia. AKSFS actively contributes to farm forestry networks and through liaison with Private Forest Tasmania provides service to small block plantation management. Our representatives engage in farm forestry forums and conferences providing practical input to new initiatives.

Skills Development

Training and skills record

Records of induction, training and skills are kept for all contractors and staff. A forest contractor audit (Forest Operations Compliance Monitoring) is undertaken on a regular basis and the operators' licenses to operate are checked for validity and fit to task. Competency standards are established by ForestWorks and are inherent in the training and accreditation processes. An annual review is undertaken of skills requirements and checked against the current monitoring system and a check is made of the Training and Skills Register to see if any gaps exist. Notifications are then sent to contractors requiring them to upgrade their skills to the required level or engage someone with the appropriate training and valid licenses. This report forms part of the Annual Management review.

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Workers Rights

AKSFS is an equal-opportunity employer and recognises the right of workers and contractors to be a part of labour organisations.

Stakeholder Engagement

Input into the planning process by interested parties is considered fundamental to sustainable forest management. Stakeholder consultation and engagement is undertaken at a scope and scale appropriate to our business. Our proposed DFA consists of individual privately owned forests whose owners' precedence and business may affect the way in which we can undertake consultation.

Stakeholder consultation is a vitally important input into our planning. Operating in the rural community, AKSFS is aware of the need to engage early with neighbours and those who may be affected by operations. Stakeholder consultation is a continuous process with communication with neighbours, local government, the Forest Practices Authority, customers and others that may be affected by our business.

Community engagement offers an opportunity for forest managers to demonstrate the good work they do and to receive positive input into planning processes. AKSFS are committed to the process of appropriate stakeholder engagement and provide feedback to all who have made a contribution.

Objective 4: Risk Management

Well managed forest operations limit risk. However, risk management is a very important component of forest planning and operations. Risks can include anything from poor forest practices, accidents and emergencies, fire prevention and suppression, spills and pollution, and weeds infestation.

Monitoring

All operations are regularly monitored and an operational audit undertaken that have to be signed off by the Area Forester and the contractors representative The results of monitoring are recorded against the management unit and the contractor, providing ready analysis to identify negative and positive trends. The analysis of regular auditing feeds into the review system.

Accident and Emergency

Accident and emergency procedures are included in the Forest Operations Safety Plan. The FPP identifies the nearest Emergency Meeting Point (EMP) EMPs can be viewed via the ListMAP on maps.thelist.tas.gov.au/listmap/app/list/map?bookmarkId=128081

Fire

Unintended fire resulting from forest operations can have serious consequences in the fire permit period. Particular measures are specified in the Forest Practices Plan to prevent fires from spreading to adjacent land. The Forest Industry Fire Prevention Protocol and the fire- fighting equipment provisions of the *Fire Service (Miscellaneous) Regulations 1996* specify the types and amount of fire fighting equipment required at forest operations, its location and actions to be taken to monitor severe fire weather conditions. AKSFS undertakes a pre- season check of fire fighting equipment on all our contractors to ensure that it is all present and operational. Forest contractors have employees trained to take regular fire weather readings during the fire season that may lead to a temporary shutdown during severe conditions. Prescribed fire, either for regeneration purposes or fuel reduction is subject to a Fire Management Plan.

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Pollution

Each operation must ensure that all care is taken when handling fuel, there is a specific provision in each FPP. Any significant spill, 20 litres or more of any fuel or liquid contaminants are to be reported immediately to the Department of Primary Industries, Parks, Water and Environment. Immediate action will be taken by the contractor to restrict any spillage as soon as it becomes known. There are rules governing storage of fuels and the proximity of fuel storage containers to water bodies. Equipment must be well maintained to minimise the risk of fuel and oil leaks.

Pests, Weeds and Disease

During the initial assessment process any obvious weed incursion and issues of forest health relating to disease or pests will be noted and reviewed with the landowner if remedial works are required. Any observations of noxious weeds identified are conveyed to the landowner who is legally responsible for control. The Farm Forestry Toolbox provides a ready reference for identifying pests and diseases in plantations and native forest.

To reduce the risk of weed invasion all harvesting and earth moving equipment entering the DFA will be washed down before leaving the previous location. Washdown procedures are to follow the *Tasmanian Washdown Guidelines for Weed and Disease Control- Machinery, Vehicles and Equipment.*

Phytopthora cinnamomii

Specific precautions are to be taken in machinery movements, planning, and management in areas know or suspected to be infected with *Phytopthora cinnamomii*, commonly known as cinnamon fungus or root rot fungus. This root rot fungus devastates susceptible vegetation communities. *Phytophthora* is impossible to eradicate once established and can spread rapidly in surface run-off and groundwater percolation. The risk of spreading *Phytophthora* can be reduced by machinery hygiene, use of *Phytophthora*-free material in road construction and by avoiding known areas of infection by attention to infrastructure planning.

Myrtle Rust

Biosecurity Tasmania has detected myrtle rust, *Puccinia psidii* in Tasmania. While it appeared isolated to importation of domestic plants, this is a serious threat to many of our native species, particularly those in the *Myrtaceae* family. This includes all our *Eucalyptus, Leptospermum* and *Melaleuca* species. The following web site provides a fact sheet describing the disease and its spread._ http://dpipwe.tas.gov.au/Documents/myrtle.pdf At temperatures of 15-25 °C fresh active infections are readily identified by the pustules of bright yellow spores on the leaves, petioles, buds and soft fruit of Myrtaceae species. AKSFS staff are fully informed and any suspicious infections observed will be notified to Biosecurity immediately.

This is considered the most significant and serious threat to our biodiversity and commercial native forest industry.

Chemical Use

As a responsible forest manager AKSFS minimises the use of chemical inputs: fertiliser, pesticide and herbicide. Native forest management, effectively organic forestry, rarely if ever requires the use of chemicals. An exception maybe legislated control of an invasion of declared weeds. Natural regeneration that is being extensively browsed would be controlled by licensed and approved professional shooters.

As managers of established plantations the minimisation of chemical use is a priority. Where use of chemicals is unavoidable application is undertaken by licensed contractors according to label conditions, off-label permits, laws and regulations.

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In conclusion, this forest management plan is our oversight document that informs our forest management system. It is available for download on our web site www.aksforestsolutions and we welcome your comments.

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Tony Stonjek Forestry Director AKS Forest Solutions

Date: 1st December 2013

The Australian Forestry Standard AS4708:2014



Appendix 1: Legal Context

Legislation	Relevance	Means of Compliance
Commentionel en Dielogical Disconsiter	(I, International, F, Federal, S, State	
Conventional on Biological Diversity 1993	I, Objective to develop national strategies for the conservation and sustainable use of	The national strategy for the conservation of
1993		biological diversity fulfils Australia's
En immedial Destantion and	biodiversity.	obligation
Environmental Protection and	F, Legal framework to protect and manage	Through enabling legislation and
Biodiversity Conservation Act 1999	flora, fauna, ecological communities and	operational prescriptions through the Forest
	cultural heritage of a national significance.	Practices System.
National Strategy on Ecological	F, Outlines key objectives for the	This is a strategic policy framework for
Sustainable Development	management of Australia's native forests.	governments to ensure ESD principles and
		objectives are incorporated in policy.
National Forest Policy Statement 1992	F, Outlines agreed objectives and policies	Embedded at the national level, directly
	for the future of Australia's public and	affecting forest policy development at
	private forests.	Federal and State levels.
Regional Forest Agreement (Land	F & S, An intergovernmental agreement to	Incorporated in State legislation.
Classification) Act 1998	provide long term sustainable forest	
RFA Tasmanian Community Forest	management, an enhanced reserve system	
Agreement 2005	across tenure and security to industry.	
Aboriginal Relics Act 1975	S, Provide for the protection of all	Provisions in the FPP
	Aboriginal relics	
Agricultural and Veterinary Chemicals	S, Prevents restricted chemicals being used	Chemical Management Branch within the
(Control of Use) Act 1995	without a permit, registered under AgVet	Biosecurity and Product Integrity Division
	Code with approved labelling	of Department of Primary Industries, Parks,
		Water and Environment
Boundary Fences Act 1908	S, Regulated the erection & repair of	Liaison between neighbours
	boundary fences	
Environmental Management and	S, Establishes duty of care on everyone to	Environment Protection Authority is a
Pollution Control Act 1994	prevent or min. environmental harm.	statutory authority independent of
	Defines potential harmful activities and	Government supported by the EPA Division
	notification requirements.	of the Department of Primary Industries,
		Park Water and Environment.
Forestry (Fair Contract Codes) Act	S, Provides for the approval of codes	Forestry (Fair Contract Codes) Act 2001
2001	developed by forestry industry to improve	
	fairness of contracts or services within the	
	forest industry.	
Fire Services Act 1979	S, Provides for the controlled use of fire in	Fire permits, forest fire operations
	urban and rural environments	equipment, provision in the FPP
	C. Establishes the formation of family model in a	
Forest Practices Act 1985 (FPA)	S, Establishes the framework for regulating forest practices across all tenures; requires	Certified Forest Practices Plan
	development and implementation of the <i>Forest</i>	
	Practices Code	
Forest Practice Code 2015 (FPC)	S, The FPC is a practical system for the off	Certified Forest Practices Plan
	reserve management of environmental, cultural, geological/soils, water and visual values. The	
	FPC includes expert systems and procedures for	
	the management of these values.	
Historic Cultural Heritage Act 1995	S, Promote the identification, assessment	Certified Forest Practices Plan
	and protection of places having significant	
	historical cultural heritage.	
Land Use Planning and Approvals Act	S, Implements the Resource Planning and	Development Application outside a PTR
1993	Management System to achieve sustainable outcomes from the use	
	and development of the state's natural and	
	physical resources	
Local Government (Highways) Act,	S & L, Establishes Municipal authority	Individual Local Governments issue permits
1982	over road establishment, use, management	to use
	and maintenance.	
Permanent Forest Estate Policy	S, Maintains a permanent forest estate that	Broad acre land clearing on private land to
	comprises areas of native forest managed on a sustainable basis both within formal reserves	cease in 2015. Does not include
	pustamatic tasis tour within format reserves	

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	and within multiple-use forests across public and private land	silvicultural prescriptions such as clearfell to regenerate native forest with native forest.
Private Forests Act 1994	S, Creates an Authority responsible for promoting private forestry. With the objective to facilitate and expand the development of the private forest resource in Tasmania in a manner that is consistent with sound forest land management practices.	Manages the Private Timber Reserve application process. Informs private growers. Develops new initiatives, davises government.
Roads and Jetties Act 1935	S, Affects policy relating to use of public roads	Liaison with Local Government
State Policies & Projects Act 1993	Provides for the development of State Policies to ensure a consistent approach is maintained throughout the State. Protection of Agricultural Land Policy 2000 requires planning schemes to treat plantations as agricultural land use.	State Policies & Projects Act 1993
Tasmanian Nature Conservation Act 2002	S, To provide for the conservation and protection of fauna flora and geological diversity and declaration of national parks and reserves	Department of Primary Industries, Parks, Water and Environment through Tasmania Parks ad Wildlife Service.
Threatened Species Act 1995	S, Provides for the conservation and management of threatened flora and fauna.	The use of expert systems and procedures for site specific recommendations in a certified Forest Practices Plan.
Water Management Act 1999	S, Provides for the management of Tasmania's water resources.	From 30th April 2007, dam works authorised by a dam permit granted under the Water Management Act 1999 do not require an FPP.
Weed Management Act 2000	S, Requires landowner to eradicate/control designated declared weeds	Managed and enforced by Department of Primary Industry, Parks, Water and Environment
Work Health and Safety Act 2012 Work Health and Safety Regulations 2012	F & S, The WHS Act provides a framework to protect the health, safety and welfare of all workers at work and of other people who might be affected by the work.	High degree of self management, administered by Workplace Standards
Forest Safety Code (Tasmania) 2007	S, Accepted by the new WHS Act 2012	Developed between the forest manager and contractor. Enforced by WorkSafe Tas.
Good Neighbour Charter	developed to provide guidelines so proper lines of communication are in place to ensure forestry operations have the backing and cooperation of those whom the operations may affect	An agreement between the major industry players, broadly endorsed by industry, tourism and farmer organisations, including Private Forests Tasmania.
The Tourism and Forestry Protocol Agreement 2017	facilitate an increased understanding and communication between the two industries.	A framework established for cooperation, agreed to by Tourism Industry Council of Tasmania, Sustainable Timber Tasmania FIAT and TFGA

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Appendix 2: Forest Carbon & Fossil Fuel Use

(Criterion 7 Forest Carbon)

Sustainable forest management is widely recognised to be the best strategy to mitigate greenhouse gas emissions. (Moroni 2011)

We aim to maintain forest carbon and minimise fossil fuel use by undertaking the following measures:

- Regular maintenance of our vehicles
- Using the shortest legal cart route from forest to market wherever possible
- If required, undertake the burning of properly constructed bark heaps at optimal moisture content from both fire safety and emissions control.
- Our management of native forests aims to maintain forest vigour through the application of appropriate silviculture that includes selective harvesting and thinning.
- When engaged in plantation management, our aim is to maintain the health and vigour of the plantation through active management that may include thinning and other silvicultural treatments as prescribed in the Sustainable Timber Tasmania technical bulletins and prescriptions. This aids in carbon sequestion by absorbing and storing carbon within the timber products for the life of the product.

Appendix 3: References

Web Sites Used Operationally and for Reference Forest Practices Authority<u>www.fpa.tas.gov.au</u> WorkSafe Tasmania<u>www.worksafe.tas.gov.au</u> Australian Forestry Standard<u>www.forestrystandard.org.au</u> Sustainable Timber Tasmania www.sttas.com.au

Australian Forestry Standard (all relevant docs)

Barrie M, Bulinski J, Goodwin A. Macleod S (2012) Tasmanian Forest Carbon Study CO2 Austrlia. For the Tasmanian State Government

Forest Practices Code 2015

Eucalypt Seed and Sowing, Forestry Commission Tasmania (2007), Native Forest Silviculture Technical Bulletin No. 1, Forestry Commission Tasmania

FPA 2012, A Resource Guide for managing cultural heritage in wood production forests.

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Moroni, M. 2011, The role of forest management in greenhouse gas mitigation: a contextual framework for Australia. Project No: PRD162-0910 Forest & Wood Products Australia

Native Forest Silviculture Technical Bulletin No.2 – High Altitude E.delegatensis Forests.

Native Forest Silviculture Technical Bulletin No.3 – Lowland Dry Eucalypt Forests.

Native Forest Silviculture Technical Bulletin No.4 – High Altitude E.dalrympleana and E.pauciflora Forests.

Native Forest Silviculture Technical Bulletin No. 5 - Silvicultural Systems

Native Forest Silviculture Technical Bulletin No.8 - Lowland Wet Eucalypt Forest.

Native Forest Silviculture Technical Bulletin No.9 - Rainforest Silviculture.

Native Forest Silviculture Technical Bulletin No.10 - Blackwood.

Native Forest Silviculture Technical Bulletin No. 11 Native Forest Silviculture

Native Forest Silviculture Technical Bulletin No 12 Native Forest Silviculture

Native Forest Silviculture Technical Bulletin No 13 Thinning Regrowth Eucalypts

Ximenes F, George GH, Cowie A, Williams J & Kelly G (2012) Greenhouse Gas Ballance of Native Forests in New South Wales, Australia Forests 2012, 3, 653-683

Appendix 4: AFS and the Forest Practices Code

Certification systems and the *Forest Practices Code* Ann La Sala Forest Practices News Dec 2012 Vol 11

The following table is taken from an article in the Forest Practices News by Ann La Sala that compares the Criteria of the Australian Forestry Standard AS 4708-2007 (adapted to the AS 4708-2013) with the requirements of the Forest Practices Code FPC. Note the abbreviations are elements of the Forest Practices Code 2015 and are readily found in the manual, Forest Practices Code 2015.

AFS Criteria 1... be undertaken in a systematic manner appropriate to nature and scale of the enterprise and provide for continual improvement FPC: A3.1, A3.2

AFS Criteria 2 . . Forest management shall demonstrate proactive stakeholder engagement FPC: A3.2, C1.2, E2, E4, F3

AFS Criteria . Maintain or enhance biodiversity FPC: B1, B3.1, B3.2, B3.4, B4, B6, B8, C1.1, C4.1, D, D2.1, D2.2, D3, D3.1, D3.2, E, E1.3, E3.1

AFS Criteria 4... maintain the productive capacity of forests FPC: C1.5, C3.1, E1, E1.3, E1.4

AFS Criteria5 . . . maintain forest ecosystem health and vitality FPC: B3.1, B6, D3, E4

AFS Criteria 4.6 . . . protect soil and water resources FPC: B1, B2, B3.1-3.4, B4, B5,B6, B7, C1,C2,C3,C4,C6,D1,D2,D6,E1.2, E2. F1

AFS Criteria 4.7 . . . maintain or enhance forests' contribution to carbon cycles

AFS Criteria 4.8... protect and maintain, for Indigenous and non-Indigenous people, their cultural, social, recreational, religious and spiritual heritage values FPC: B7, D4, D5

AFS Criteria 4.9... maintain and enhance long-term social and economic benefits FPC: A3.2, B7, B8, C4.4, D2.2, D4, E3.1, E4, F



Policy No. 2017-48

Council Pool Vehicle

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1. PROVISION OF COUNCIL POOL VEHICLE

A vehicle has been provided by Council as a pool vehicle and is housed at Hamilton.

2. AUTHORISED USERS

(a) Council administration staff

Council administration staff are authorised to use the pool vehicle for Council business.

(b) Council Environmental Health Officer

The Environmental Health Officer is authorised to use the pool vehicle for Environmental Health Officer duties.

(c) Mayor and Councillors

The Mayor and Councillors are authorised to use the pool vehicle to undertake duties/business associated with the discharge of their function as Mayor or Councillor.

Limited private use is available where the Mayor or Councillor has private commitments immediately before or after conducting council business.

3. BOOKINGS

Bookings for the pool vehicle are to be made through the Hamilton office.

Where the vehicle is required outside of normal business hours, arrangements for pick up and return of vehicle are to be made with the Hamilton office staff.

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4. VEHICLE LOG BOOK

A vehicle log book is provided for the recording of the following details:

- The dates on which the journey began and ended
- The odometer readings at the start and end of each journey
- The kilometres travelled
- The purpose of the journey

Where any part of the journey was for private business, it is to be noted in the log book.

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