



Business Plan for the Derwent Estuary Program – 2019 – 2024

Established in 1999, the Derwent Estuary Program is a voluntary, not-for-profit partnership between state and local government, industry and the community to restore and promote our estuary. We share science for the benefit of the community, nature and the economy.

This Business Plan has been developed through facilitated workshops with the DEP Board and Technical Working Group. The Board determined the DEP Purpose, Vision, Operating Philosophies and Goals. The Technical Working Group has contributed significantly to identifying priorities for the DEP to focus on in the next five years.

This document is a working draft and will inform the DEP's Annual Work Plans for the Board and Members Committee. Initiatives outlined in this document will be linked to staff action plans.

Our Purpose: To enable informed decisions

Our Vision is to be the voice of the Derwent so that when people think of the Derwent, they also think of the Derwent Estuary Program.

Operating philosophies:

- An apolitical perspective
- Transparency
- Evidence based

Goal summary (values):

- Science to guide management
- Facilitate pollution reduction
- Facilitate nature protection
- Engage, Inspire and Grow the DEP

Key Themes of the Business Plan

Strategy Review

- Validate strategies with stakeholders
- Identify the specifics that DEP can measure and achieve
- Identify threats / risks

Stakeholder Engagement

- Develop Value Proposition (i.e. what does DEP membership/participation give back)
- Broaden scope of engagement
- Data management and access

Education

- Telling the story of the river and DEP to partners and community
- Selling the positive messages as well as the warnings
- Best practice guides

Objectives

Objective 1: Operate the DEP so that it is legally compliant and financially sound

Objective 2: Continue and improve monitoring methods of water, sediments, seafood and habitats

Objective 3: Facilitate the reduction of nutrients entering the estuary from point and diffuse sources

Objective 4: Facilitate the reduction of heavy metal levels in the estuary from point and diffuse sources

Objective 5: Facilitate the improvement of water quality at beaches and bays

Objective 6: Grow, maintain and enhance the function of high priority habitats

Objective 7: Facilitate an increase in the numbers of iconic species

Objective 8: Increase awareness of DEP and its programs

DEP Governance

Objective 1: Operate the DEP so that it is legally compliant and financially sound

Measures of Success	Performance Indicator	Basis for comparison
All DEP partners continue to support the DEP through the Partnership Agreement – financially and in-kind	DEP continues to be funded.	Previous Partnership Agreements

Initiatives – Year 1	Who	When complete
Five-year DEP Partnership Agreement signed by all DEP Members	CEO	June/July 2019
DEP operational requirements compliant with relevant Government bodies including ACNC and ASIC	CEO	December 2019
DEP financially audited annually	CEO	May – June 2019
Human resources – policies, contracts in place and legally correct	CEO	On-going
Work Health and Safety procedures and policies maintained and a standing agenda item for DEP Board meetings.	CEO	On-going
Board – regular reporting and strategic development	CEO	On-going

Optimise and review direction / strategy / targets	CEO, Board, Technical Working Group	February each year
Business risk assessment coordinated to inform organisation management.	CEO	April/May 2019

Initiatives – Years 2 - 4		
Pursue the resourcing of projects through a variety of avenues – grants, donations, in-kind options	CEO	2021
Consider ethical banking arrangements DEP finances.	CEO	2022

Goal 1: Using science to guide management

Objective 2: Continue and improve monitoring of water, sediments, seafood, habitats

Measures of Success	Performance Indicator	Basis for comparison
Monitoring programs reviewed and consensus with partners on DEP monitoring aims, based on asset/threat risk assessment	Monitoring results used by partners for adaptive management	If monitoring is modified, it is still comparable to existing long-term data sets

Initiatives – Years 1 - 2	Who	When complete
Conduct a threat and risk assessment and ID data gaps	DEP staff	May 2019
Monitoring programs – AWQ and RWQ <ul style="list-style-type: none"> - Continue coordination of the AWQ and RWQ monitoring and report results - Review monitoring programs with MTF to determine what we want to achieve and how we address emerging issues - Review reporting methods in cooperation with MTF 	DEP scientist (AWQ) Biodiversity Officer (RWQ)	Ongoing June 2019 August 2019
Seek funding for agreed monitoring programs (in addition to core monitoring) e.g. rocky reefs, intertidal assessment, sediments, catchment	DEP staff	May – June 2019
Develop monitoring programs to assess new industry impacts e.g. in catchment and from Storm Bay	DEP scientists	July 2019
Host Partner meetings regularly - ensure terms of reference are developed so meetings are meaningful.	DEP staff RWQ MTF Stormwater Catchment Communications Tracks	May, Nov June June, October July June, Nov August
Develop pictorial/conceptual models to explain issues, partner assets and risks	CEO/comms consultant	January 2020
Develop monitoring strategy to improve understanding of the drivers of hypoxia	Scientist	August 2019

Initiatives – Years 2 - 4	Who	When complete
Develop citizen science program, starting with water bug surveys	Catchment Scientist	2022
Climate change: <ul style="list-style-type: none"> - determine DEP role in scientific conversation - support local government initiatives by providing relevant DEP science through regional forum 	DEP Scientists	2022
Establish student project to investigate use of Derwent seaweed for consumption and garden use	Biodiversity Officer	2022
Provide regional context on natural values, stormwater etc. for partners to help prevent 'silo' approach – DEP task force meetings, roadshows, regional guides	DEP Scientists	On-going

Year 5	Who	When complete
Track change impacts, nutrients, flow etc, ag/ aquaculture, climate variability captured in reporting	DEP Scientists	2023
Optimise and review direction / strategy / targets	CEO, Board, Technical Working Group	2023

Goal 2: Facilitate pollution reduction

Objective 3: Facilitate the reduction of nutrients entering the estuary from point and diffuse sources

Measures of Success	Performance Indicator	Basis for comparison
Scientific results used by managers so that nutrients from anthropogenic sources are reduced in the estuary.	Industries report a reduction in nutrients to the estuary and monitoring results reflect this reduction	Long term data reveals a decrease in nutrients in water and key habitats maintain/improve ecosystem function.

Initiatives – Year 1 - 2	Who	When complete
Apply for funding to develop a Water Quality Improvement Plan (WQIP) and River health action plan which will include recommendations for monitoring, investigations, management	Catchment Scientist	June 2019
Monitor catchment water quality including nutrient tracing	Catchment Scientist	June 2020
DEP Working Groups <ul style="list-style-type: none"> - Host regular meetings of the Stormwater, Catchment and Monitoring Task Forces - Define Terms of Reference for each - Participate in Storm Bay technical working group established by FRDC 	Catchment Scientist, Stormwater Officer, Scientist	Quarterly, half yearly (MTF)

Determine ecosystem indicators to measure potential impact of nutrients coming from salmon farming in Storm Bay	Scientist	June 2019
Participate in nutrient management for Derwent WWTPs in cooperation with the EPA and TasWater	Scientist	January 2020
Support D'Entrecasteaux and Channel Collaboration with strategic guidance, scientific advice and funding	CEO	2021
Communicate science to managers and community	CEO	Ongoing
Stormwater inputs – develop priorities for monitoring and mitigating nutrients	Stormwater Officer	August 2019
Seek funding for on-ground action to manage stormwater e.g. WSUD at new developments, improved maintenance of existing WSUD infrastructure	Stormwater Officer	December 2019
DEP to work with Partners on sharing Derwent data and collaboration opportunities (TasPorts, Nyrstar).	Scientist	Ongoing
Map nutrient inputs by industry in catchment and estuary	Catchment Scientist	August 2019
Pollution is more than nutrients and heavy metals - define focus pollutants/ plastics starting with a literature review	Catchment Scientist	December 2020

Years 2 - 5		
Harness national/international campaigns to act locally (identify relevant campaigns)	CEO	As available
Define education programs to inform public and industry groups of pollution issues and methods to reduce pollution / loads	CEO	2022
Pursue actions to reduce pollution from identified sources in catchment based on WQIP/Healthy River Action Plan recommendations e.g. agriculture, hatcheries, WWTPs, urban centres.	Catchment Scientist	2021
Investigate the impacts of nutrients on the pelagic system	Scientist	2022
Assess inter-relationship between heavy metals in sediments and priority issues e.g. hypoxia, nutrients, climate change	Scientist	2021

Objective 4: Facilitate the reduction of heavy metal levels from point and diffuse sources in the estuary

Measures of Success	Performance Indicator	Basis for comparison
Scientific results used by managers so that heavy metals in the estuary are reduced	Industries report a reduction in heavy metals to the estuary and monitoring results reflect this reduction	Data reveals a decrease in heavy metal in water, sediments and seafood and key habitats maintain/improve ecosystem function.

Initiatives – Year 1 - 2	Who	When complete
Sediment survey – review the purpose of this survey	Scientist	June 2019
Seafood safety survey	Scientist	December 2019
Determine impact of heavy metals on natural and human values – literature review	Scientist	January 2020
Provide evidence-based recommendations to DEP Partners to improve environmental management of Derwent	DEP science staff	Ongoing
Understand the drivers of potential heavy metal release in the Derwent – literature review and student project	Scientist/Catchment Scientist	December 2020

Objective 5: Facilitate the improvement of water quality at beaches and bays

Measures of Success	Performance Indicator	Basis for comparison
Beaches – good water quality at all sites by 2024 Bays – no poor water quality ratings at bay sites by 2024	Monitoring during 1 December and 31 March reveals acceptable enterococci levels so that by 2024 beaches record good long-term water quality and bays good or fair water quality.	Five-year 95th hazen percentile results show good water quality at beaches, and good or fair water quality at bays.

Initiatives – Year 1 - 2	Who	When complete
Develop a framework for investigating water quality at Poor and Fair rated swimming sites	Biodiversity Scientist	November 2019
At end of recreational water quality monitoring season, undertake review of: data, data gaps, contamination sources and develop recommendations	Biodiversity Officer	May 2019
Utilise existing data to provide advice regarding stormwater quality improvements and priorities – beaches and bays	Stormwater Officer	December 2019
Tackle litter in the Derwent by: <ul style="list-style-type: none"> - Identifying sources and accumulation points - Providing information to land managers and community - Encouraging land managers and the community to organise/participate in clean-ups - Organising business clean up - beaches - Identifying citizen science opportunities – e.g. microplastic survey, mapping 	Stormwater Officer	June 2020
Help raise profile of DEP in the community with messages about litter (war on waste)	CEO	July 2020
Maintain Stormwater Taskforce to identify pathways to manage stormwater quality in urban areas.	Stormwater Officer	Ongoing
Keep up to date with boat sewage issues and communicate changes	Biodiversity Officer	Ongoing

Years 2- 4		
Advocate for a stormwater code to be included in the Tasmanian State Planning Scheme	CEO, Stormwater Officer	June 2020
Develop site specific plans to achieve goal of 'Good' (beach) water quality at all priority beaches by 2024	Stormwater Officer	July 2020

Year 5		
Beach water monitoring shows that all Hobart beaches are safe to swim at and have 'Good' long-term water quality ratings and sites are managed proactively to prevent water quality decline	Biodiversity Officer	2024

Goal 3: Facilitate the protection of nature

Objective 6: Grow, maintain and enhance the function of high priority habitats

Measures of Success	Performance Indicator	Basis for comparison
The Conservation Action Plan is updated and implemented.	Management of priority habitats undertaken by land managers.	The Conservation Action Plan first developed in 2011 is updated and informs management of priority habitats.

Initiatives Years 1- 2	Who	When complete
Asset/threat risk assessment	DEP staff	May 2019
Conduct saltmarsh survey and provide site specific management recommendations to land holders.	Biodiversity Officer	December 2019
Encourage councils to use saltmarsh mapping to keep and manage retreat areas.	Biodiversity Officer	February 2020
Identify community values e.g. fishing, beaches, parks, tracks, marinas etc. and develop maps.	CEO	February 2020
Coordinate regional Derwent Estuary weed group to devise Derwent foreshore weed management priorities.	Biodiversity Officer	Quarterly meetings
Develop estuary wide foreshore weed strategy in cooperation with the regional weed group.	Biodiversity Officer	2020
Continue to survey and control rice grass and support karamu management	Biodiversity Officer	Sept/Oct 2019
Investigate options to reduce sediment disturbance - literature review on ferry wake impacts and management	Stormwater officer	December 2019
Check local and state government websites weekly for Derwent related development applications	Office Support	Ongoing
Map land use change in Derwent estuary for next five-yearly State of the Derwent Report	Stormwater Officer	October 2020
Develop maps of high priority sites/assets across whole catchment and then by municipality.	CEO	January 2020

Seagrass monitoring and management recommendations	Scientist	Ongoing
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Year 2 - 5		
Promote saltmarsh values via - world wetland day	Biodiversity Officer	Wetland day February - ongoing
Monitor and support the management of Lauderdale saltmarshes and share information with the community including fishers, bird enthusiasts	Biodiversity Officer	2021
Develop strategies to manage nuisance birds	Biodiversity Officer	2021
Presence at Festivals such as wooden boat festivals, science week	Biodiversity Officer	As required
Develop monitoring plan for upper estuary wetlands and recommend management.	Biodiversity Officer	2021
Investigate feasibility of living foreshore reefs (particularly native oyster reefs) in Tasmanian environment	Scientist	2021
Assess impact of waste from marinas on Derwent habitats and species	Scientist	2021
Include marine reserves in monitoring programs – rocky reefs, wetlands	Scientists	Ongoing
Investigate function of a degraded vs a healthy saltmarsh through the international tea bag project	Biodiversity Officer	June 2021
Investigate options to reduce sediment disturbance including: <ul style="list-style-type: none"> - Eco-moorings - Large vessel anchor locations 	Biodiversity Officer Scientist	2022

Objective 7: Facilitate an increase in the numbers of iconic species

Measures of Success	Performance Indicator	Basis for comparison
All native species of plants and animals are abundant in the Derwent.	Actions of stakeholders involved in the National Handfish Recovery Team and the Penguin Advisory Group increase population of these species through habitat improvement. Native oysters survive and form reefs.	Endangered species removed from government lists and monitoring shows an increase in abundance of species including the spotted handfish, little penguins and native oysters

Initiatives – Years 1 - 2	Who	When complete
Provide administrative support to the National Handfish Recovery Team (NHRT) to enable research, communication and management	Biodiversity Officer	On-going - quarterly
Continue relationship with Councils and State government through the PAG to assist them manage little penguin colonies effectively.	Biodiversity Officer	As required

Participate in the Tasmanian Penguin Advisory Group	Biodiversity Officer	As required
Participate in marine pest working group hosted by DPIPW	Biodiversity Officer	As required
Maintain contact with EPA re Oil Spill Response procedures and protocols	TBC	Annual

Years 2 - 5	Who	When
Investigate feasibility of living foreshore reefs (particularly native oyster reefs) in Tasmanian environment	Scientist	2021
Assess status of migratory fish in the Derwent and tributaries and identify options for management	Biodiversity Officer	2022

Goal 4: Engage, Inspire and Grow the DEP

Objective 8: Increase awareness of DEP and its programs – internally and externally

Measures of Success	Performance Indicator	Basis for comparison
50% increase in community recognition of DEP	The Derwent Estuary Program messages are regularly disseminated to partners and the public (many methods).	Results from 5 yearly community surveys show increase in awareness of DEP and our key messages compared with 2013 survey.

Initiatives – Years 1 - 2	Who	When complete
Community survey to evaluate reporting effectiveness	Myriad consulting	June 2019
Communications and fundraising strategy considering: <ul style="list-style-type: none"> - stakeholder analysis for targeted communication. - DEP brand – perhaps use iconic species to help community identify with the DEP. 	Communications (consultant or employee)	December 2019
Roadshow at the right time - targeted at Councillors and senior bureaucracy and provide clear advice and data to encourage and maintain commitments	CEO	On-going
Prepare internal Annual Technical Report summarising monitoring and investigations for Partners	Scientist	July 2019
Promote DEP achievements publicly via: E bulletin, Annual report card, Five yearly State of Derwent report and latest social platforms - to community and to partners	CEO	On-going
Encourage community ownership of the estuary through mapping of community values e.g. fishing, swimming, walking, kayaking etc.	CEO	January 2020
Quarterly reporting to partners - through 'DEP champions' in organisation	CEO	Quarterly
Support Tracks Working Group and continue to update and promote the Greater Hobart Trails website	TBC	As required

Identify immediate actions to acknowledge and establish connection with traditional owners of the Derwent – past and present	CEO	December 2019
Encourage community enjoyment of the Derwent through regular communication particularly social media	Communications (consultant or employee)	2020
Consider establishing partnerships (not necessarily financial) - fishing industry, MONA, traditional owners	CEO	2020
Encourage partners to celebrate partnership - linking websites, active promotion.	Communications (consultant or employee)	2020

Years 2 - 5		
Provide regular reminders of seafood safety issues - contamination of fish, preparation of resources in other languages	Communications (consultant or employee)	2021
Connect with Councils so they can deliver DEP messages to their community environment groups	Biodiversity Officer	Ongoing
Social media marketing campaign in cooperation with DEP partner communicators to improve awareness of DEP and key messages.	Communications (consultant or employee)	December 2020
Promote positive stories and access to the Derwent - relating to life along the Derwent e.g. go hiking, exploring, kayaking etc.	Communications (consultant or employee)	Seasonal
Assist with a festival/science symposium to deliver on what we do and share science	Event manager	August 2020
Partner with existing education providers e.g. discovery rangers, bush adventures, Rockpool workshops, CSIRO Science - through curriculum, existing programs, schools close to the estuary.	Communications (consultant or employee)	2022
Establish a Kayak trail for the entire Derwent estuary building on the existing trail in Clarence	Communications (consultant or employee)	2022

Critical Initiatives for 2019/20

Themes for 2019/20 – Review strategies and monitoring, identify gaps, seek project funding and communicate with partners and public

Governance

- Board and Members meetings
- Five-year Partnership Agreement re-signed
- Staff contracts
- Financial audit
- Compliance with ASIC, ACNC

Science to Guide Management

- Asset/threat assessment and data gap identification
- Seek funding for Catchment WQIP/Healthy River Action Plan
- Review of Beach Watch season and implementation of recommendations
- Monitoring Review in cooperation with Monitoring Task Force
- Rocky reef and intertidal surveys

Facilitate pollution reduction

- Stormwater management priorities identified in cooperation with Stormwater Taskforce

Facilitate nature protection

- Maintain species working groups
- Rice grass and Karamu surveys
- Regional weed plan
- Saltmarsh condition monitoring and management recommendations

Engage, Inspire, Grow the DEP

- Regular Roadshows – partners, politicians
- Prepare internal Annual Technical Report and external Annual State of the Derwent Report Card
- Maps for assets, threats, community interest etc.

Structures and Resources

Organisational structure

- Employees: 6
- Partners: Board, Members Committee, Working Groups
- Consultant support: Accru Accounting, Edge Legal, Wise, Lord, Ferguson, Myriad, Mark Stalker, Derwent Catchment Project (Karamu control), Express IT

Operations:

Categories	Details
Services:	<ul style="list-style-type: none"> - Monitoring and reporting - Communications and promotion - facilitation of actions - grant writing
Network:	Partnership between Hobart, Clarence, Glenorchy, Kingborough, Brighton, Derwent Valley Councils, the Tasmanian State Government, Nyrstar Hobart, Norske Skog Boyer, Hydro Tasmania, TasWater, TasPorts.
Membership Model	Membership is through a voluntary five-year Partnership Agreement. The DEP is also a not-for-profit Company Limited by Guarantee
Future Growth	Grant funding for key projects is required (either through grants, existing funding or other sources): <ul style="list-style-type: none"> - WQIP/Healthy River Action Plan - Ecosystem indicator monitoring to detect impact from salmon farming in Storm Bay - WSUD – on-ground works. - Investment in communications and education.

Resources:

- Annual income from DEP Partners.
- Grants
- Donations
- Income from training

Staff:

DEP directly employs six people who fulfil the following positions:

CEO, Scientist, Catchment Scientist, Biodiversity Officer, Stormwater/Technical Officer, Office Support (1 day/week).

In-kind staff support from partners is significant and includes (but not limited to): monitoring, contribution to planning and review, participation in meetings.

Intellectual property:

- Data sharing: Application form for external parties. Data sharing policy.
- Registered business name through ASIC – Derwent Estuary Program Limited.

Risk Management

- Business risk assessment to be undertaken by Wise, Lord and Fergusson (April/May 2019).

SWOT analysis

<p>Strengths of business providing advantage: Quality staff who have expertise in:</p> <ul style="list-style-type: none"> - Science - Monitoring, design, delivery - Database management, analysis of long-term data sets <p>Reporting – internally, publicly Good will and collaboration with government, industry and community built on sound science and consistent delivery of results Friendly, approachable, can do attitude Consistent funding, not grant reliant History of program – good foundation for future</p>	<p>Weaknesses within DEP that place us at a disadvantage: No dedicated communications staff member Staff can be spread too thin – need boundaries Partnership is voluntary History of program can be limiting in terms of change to programs Partners unwilling to change Staff unwillingness to change Expectations of timing – rushing to get things done may reduce quality of science Limited funding available for new projects or on-ground works Scope creep</p>
<p>Opportunities outside DEP New partnerships with industry Native oyster reef project Research collaboration with CSIRO, UTAS Maps – assets, changes over time, threats, priorities for action, develop visual depiction of business plan New technology trials Tours of industry – informing staff in DEP partner organisations Working with the community</p> <ul style="list-style-type: none"> - Derwent stories – photo competition - Open, editable ‘favourite spot on the Derwent’ map - Citizen science projects – microplastic surveys, water bugs - School activities <p>Using partner networks more Weed strategy for Derwent Growing saltmarsh</p>	<p>Threats in the external environment that could cause trouble: Derwent Remediation – dredging of sediments Economic downturn affecting funding</p>

<p>Invertebrate sampling – collaborate with DPIPWE Inform catchment management policy Social media engagement Keep DEP partner organisations informed of DEP activities</p>	
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