

Noosa *Bring Back the Fish* Project

Restoration and conservation of shellfish reefs in the Noosa River

Six monthly Report No. 1

Report prepared by: The Nature Conservancy

Reporting Period: July 2019 to February 2020



Figure 1. Mouth of the Noosa River estuary (© Marcos Barboza)

This project was made possible by The Nature Conservancy, Noosa Shire Council, The Thomas Foundation and Australian Marine Conservation Society. The project is located on Kabi Kabi Sea Country.

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Purpose and scope

The purpose of this report is to provide an update on overall performance and progress of the project: *Bring Back the Fish*; a partnership between The Nature Conservancy (TNC), Noosa Shire Council (NSC) and the community of the Noosa shire.

The governance arrangements for the Project are defined in the *Alliance and Funding Agreement* between The Nature Conservancy and Noosa Shire Council, which was executed on the 25th July 2019.

This report (report 1) pertains to the first 7 months of the project between 25th of July 2019 and 28th of February 2020.

Background

Over the last four years, Noosa Shire Council (NSC), The Nature Conservancy (TNC) and a range of stakeholders have worked together to build a deeper understanding of the environmental significance and long-term sustainable management options for the Noosa River. This has included:

Noosa River Expert Workshop, Powerhouse Museum, 2014

A two-day workshop, hosted by TNC on behalf of The Thomas Foundation and Noosa Parks Association, comprising 12 academic and NGO estuary scientists. The workshop identified 14 conservation activities that could lead to a healthier Noosa River, with oyster reef restoration listed as a priority action in addition to prawn restocking and Kin Kin sediment management. These activities (including further scoping studies) were later jointly funded by NSC Noosa Parks Association, The Thomas Foundation and the Noosa Biosphere Reserve Foundation.

TNC Oyster Restoration Scoping Study, 2015

TNC and Ecological Service Professionals Pty on behalf of NSC and others undertook a short, five month ecological assessment to quantify oyster densities across 11 intertidal and subtidal sites within the estuary. The study confirmed high densities of oyster recruitment particularly around Weyba Creek, the main channel around Tewantin, and in the narrow channel between Goat Island and Noosa North Shore. The project recommended installing a number of pilot reefs for further assessment.

University of Queensland Historical Ecology of the Noosa Estuary fisheries, 2015

Ruth Thurston from the University of Queensland undertook a historical ecology study on behalf of TNC and NSC in the Noosa River estuary to develop an understanding of historical fisheries productivity, including oysters. The study confirmed oyster reefs used to exist in the estuary and were commercial harvested in the early 1900s. Fish populations were also significantly larger in the past than they are today.

University of Sunshine Coast, Bring Back the Fish, 2018-2020

A three year study which installed a series of experimental 'reef units' consisting of coir bags filled with oyster shell at 15 sites across the estuary. The project studied the structural integrity, oyster recruitment, fish and invertebrate community assemblages and human interactions with the reefs. This project collected important ecological information that will support the final design and implementation of reef restoration in this Project.

NSC-TNC Partnership Agreement and Contract 2019

NSC and TNC, in addition to other organizations with an interest in the River's sustainability (including Noosa Parks Association, The Thomas Foundation and Noosa Biosphere Reserve Foundation), through a series of dialogue and presentations to Noosa Shire Council, have recognized the strategic priorities of both organizations and of others

would be more effectively served through a formal partnership, rather than on an individual project basis. This agreement led to the development of *this* Project, and associated contract between NSC and TNC, and is the main delivery mechanism of the TNC-NSC Partnership.

Noosa River Plan, 2020

The completion of the Noosa River Plan by NSC in 2020 will identify current and future threats and management interventions to abate identified threats within the Noosa River estuary. The Plan will identify the strategic alignment of oyster reef restoration to the long-term health and resilience of the Noosa River estuary. The Noosa River Plan will support the delivery of the Noosa Environment Strategy.

TNC Project Management Plan 2020

The TNC Project Management Plan including Communications Plan and Monitoring, Evaluation and Reporting (MER) Plan have been drafted and shared with Noosa Shire Council. The Plan is in the process of being finalized.

Project overview

Past research projects demonstrated that the Noosa River estuary held the promise of sufficient oyster recruitment and survival, and invertebrate colonization, at a number of locations to make the estuary a viable place to pursue an oyster reef restoration project at scale.

The primary objective of the *Bring Back the Fish project* ("The Project") is to construct and restore shellfish reefs in the Noosa River estuary. These reefs will be here for the benefit of nature and for people.

Historically, oyster reefs were prolific throughout the Noosa River estuary. They were created predominantly by rock oysters (*Saccostrea glomerata*) which formed three-dimensional infrastructure in the river and attracted a myriad of species and their associated ecosystem functions.

The oyster reefs added extensive 'natural infrastructure' to the estuary and provided the estuary with a range of environmental services including complex habitats for marine species such as fish, invertebrates, corals, ascidians, encrusting sponges and algae, and reef communities; filters of sediment and pollution; aids to bank stabilization and protection; and, complex vertical and horizontal living spaces, and feeding grounds, for a multitude of intertidal and marine creatures, which are today important for marine and coastal tourism activities such as fishing, diving and bird watching.

The contract between TNC and NSC commenced on 25th of July 2019, and is scheduled to be completed by 30th September 2022.

Project partners and governance

This Partnership commenced on 25 July 2019 and will run for three years and three months, with the outcomes of the Partnership to be reviewed in July 2022. The total operating budget is \$2.4M, inclusive of \$1.2M from The Nature Conservancy (TNC), which includes \$200,000 from the Australian Marine Conservation Society (AMCS), and \$1.2M from NSC. There is an expectation that TNC will raise further funding from a variety of other sources to support further delivery of shellfish reef restoration.

Project management will be led by TNC in partnership with NSC and the Noosa community (see Figure 2). A Technical Advisory Committee will oversee scientific and technical aspects of the project and include representatives from TNC, NSC, State Government, Kabi Kabi and other experts as required. The governance arrangements for this Project are defined in the *Alliance and Funding Agreement* between TNC and NSC as executed on the 25th July 2019.

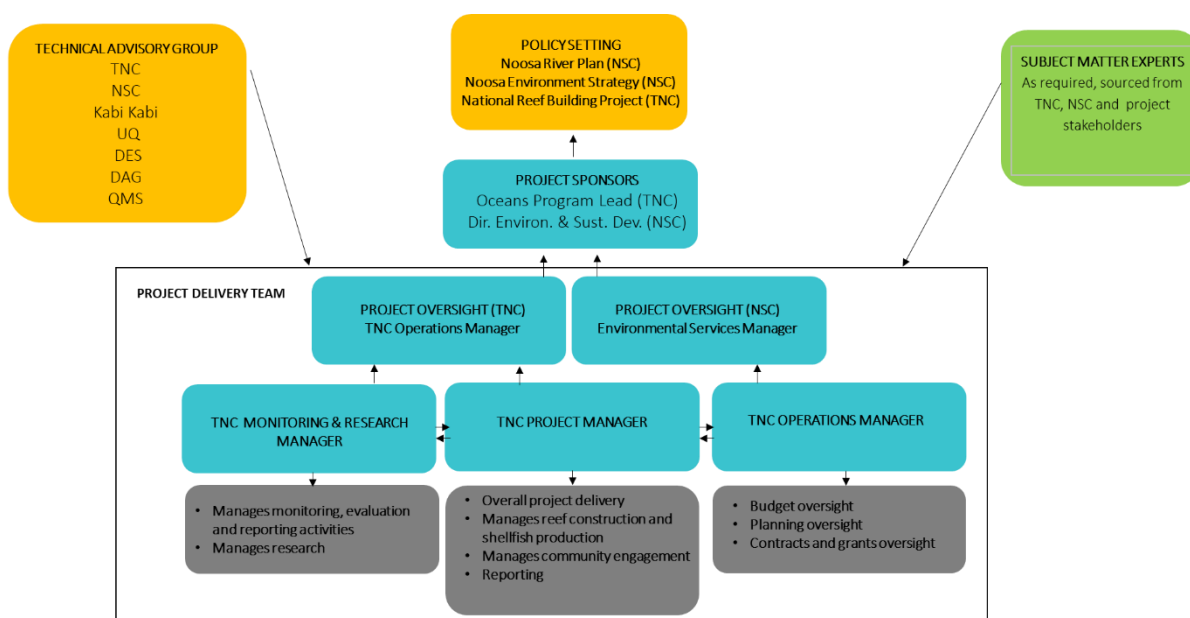


Figure 2. Project Delivery Team, including Project Sponsors, Technical Advisory Group and Subject Matter Experts.

Conservation deliverables

The Project principally delivers the following conservation initiatives:

1. Restoration of Noosa's oyster reefs at practical and agreed locations;
2. Engagement of the Noosa community and local businesses in meaningful volunteering and marine education opportunities;
3. Exploration of the potential to restore seagrass habitats in Lake Cooroibah (and potentially elsewhere) to reduce sediment resuspension and increase invertebrate and fish biomass in the estuary (to be delivered as part of Objective two and five); and,
4. Provision of technical advice to Noosa Shire Council (NSC) in identifying opportunities for sustainable commercial and recreational fisheries in the Noosa River.

Work sequence

The Project is split into three work packages, or phases, to reduce ecological and financial risks through the application of an adaptive management framework whereby learnings from previous phases are included in future phases to consider prior learning and minimize risk:

1. *Optimal design and siting* (2020) which includes pre-planning to determine the optimal design, locations and most cost effective method of reef restoration;
2. *First site implementation* (2020-2021) which will construct full sized reefs at two sites in the estuary to test initial restoration methods and designs; and,

3. *Full restoration* (2021-2022) which construct reefs at all suitable (and approved) sites within the estuary.

Progress against deliverables

Considerable progress has been made in the first six months of the contract. TNC has achieved the following actions:

- Appointment of a Project Manager for the project, Craig Bohm, who commenced work on the 29th of January 2020, and is based in Noosa.
- Drafting the *Bring Back the Fish* Project Management Plan and corresponding Communications Plan and Monitoring, Evaluation and Reporting (MER) Plan and sharing these with Noosa Council for input.
- Contributed to Noosa Shire Council's Noosa Future Fishing report and theory of change workshop.
- Completed preliminary field assessments (baseline surveys) of potential restoration sites in the Noosa River Estuary.
- Completed site visit and preliminary assessment for the Noosa 'Shuck Don't Chuck' oyster shell recycling project. (Five restaurants and one seafood wholesaler have expressed interest in participating). TNC and Noosa Council in the process of identifying a shell recycling site and potential shell transport companies.
- Providing input to, as well as three expert reviews of the draft *Noosa River Plan*.
- Facilitation of a scientific literature review of the history of oyster reefs in South East Queensland.
- Facilitation of project media (see media section).
- Completed two *Enviroforum* seminars (Dr Chris Gillies, Dr Hugh Possingham) for Noosa Parks Association members and guests. Dr Chris Gillies also presented to staff at the Noosa Shire Council.
- Received quotes for seagrass mapping/surveys and in discussion with university partner to establish seagrass research program.

TNC expects the project to now enter a more public phase, with the Project Manager commencing bilateral meetings with stakeholders, establishing the project's Technical Advisory Group (TAG), initiating the *Habitat Suitability Modelling* to refine the selection of oyster restoration sites and further develop the shell recycling project and systemizing on-ground project activities. These activities will deliver two trial oyster reefs established in the Noosa River estuary in 2020, with further reefs being established, with strong community support, over the following year.

Unforeseen issues arising and project adaptation

COVID-19 has challenged the way the project will be delivered in 2020. While TNC remains committed to delivering Phase II of the project, as per the agreed schedule, the mechanisms for community consultation, regarding reef placement, and community engagement, such as establishing a 'Shuck don't Chuck' restaurant engagement or shellfish reef gardening program, have been placed on hold, and will be revisited for their relevance in Phase III of the project – the full reef restoration phase.

COVID-19 allowing, the project would still plan for community involvement in the monitoring of the trial reefs in Phase II, in some capacity. TNC is discussing this internally and is scoping interest with community groups.

Community consultation associated with selecting the site for the trial reefs will also be modified in that key stakeholders will be identified, agreed to between stakeholders and contacted bilaterally for input to the selection process. The TAG will then approve

Total progress to date

Table 1 presents the project workplan including deliverables, outcomes, tracking indicator, total progress to date and significant comments on progress to date.

Table 1: Total Progress to Date

Deliverables	Measurable outcomes	Contracted Timeframe	Progress	Total progress to date and notes
(A1.1) A Technical Advisory Group (TAG) is established to provide project oversight. This will include a clear terms of reference (ToR) and consist of representatives from key stakeholders (NSC, TNC, Kabi Kabi and at least two other independent parties).	1 Technical Advisory Group with TOR established	30 April 2020	Planned	Terms of Reference (ToR) for the TAG drafted Inaugural meeting planned for 13 May 2020. Kabi Kabi invited to participate in the project through the Noosa Council.
(A1.2) Appointment of dedicated project manager who is a marine biologist with extensive project management experience, for the term of the Agreement.	1 Project Manager appointed	31 January 2020	Achieved	Craig Bohm appointed by TNC as Marine Coordinator for South East Queensland, based in Noosa. Position commenced 29.01.2020.
(A1.3) A Project Implementation Plan detailing at a minimum: A detailed risk assessment associated with the project. A communications and media plan, outlining media protocols, opportunities and the role of TNC and NSC. A monitoring, evaluation and reporting plan which identified ecological and social monitoring programs, how they will be reported on and how this will fed back into the project.	1 Project Implementation Plan completed and endorsed by Noosa Council 1 Detailed Risk Assessment included 1 Communications and Media Plan completed 1 Monitoring, Evaluation and Reporting Plan completed	31 December 2019	Submitted Submitted Submitted Submitted	All three plans submitted. All plans will be adapted as Phase II of the project evolves and more is known, particularly regarding the specific implementation modalities and timeframes, monitoring systems (tailored to Noosa) and communication methods.

<p>(A1.4) Participation and delivery of public education and engagement forums and media statements</p>	<p>3 community engagement forums facilitated</p> <p>3 media statements released</p>	<p>30 June 2022</p>	<p>Fora in planning</p> <p>Two statements released and more will follow</p>	<p>In response to COVID-19, Phase II community engagement actions for the selection of the trial reefs will be via bilateral, remote meetings between the Project Manager and key stakeholders, as identified by NSC and other key community members.</p> <p>Key issues raised by community members will be recorded, solutions solved and matters of significance raised with NSC and, where appropriate, the TAG.</p> <p>Other forums will be held to present results of the trial phase to the community and to select the full suite of reef sites for the scaled-up restoration works. We will also showcase progress with the full reef restoration works, as well as present the results at the end of that work. Other forums and media engagement actions will be made on an 'as needed' basis.</p> <p>Two Noosa <i>Enviroforum</i> seminars were held in November 2019 with TNC Chief Scientist, Pr. Hugh Possingham and Dr Chris Gillies.</p> <p>1 media statement released by TNC responding to comments in the Noosa News and Sunshine Coast Daily about the project (13.2.20).</p> <p>Completion of scientific paper detailing Aboriginal use (inc. Kabi Kabi) and historical harvest of oysters in SE Queensland in February 2020.</p>
<p>(A1.5) Annual project reports and final report</p>	<p>3 six monthly status updates</p>	<p>First Report: 31</p>	<p>Submitted</p>	<p>This report is the first six monthly status update.</p>

each of which address, at a minimum: Activities undertaken during the subject financial year, status and progress against deliverables, budget progress, income and expenditure, report against monitoring and evaluation program and measurable outcomes and outline of proposed upcoming works/activities for future period.	submitted to Noosa Council 3 annual reports submitted to Noosa Council	January 2020 First Report: 31 July 2020	In planning	
(A2.1) Oyster reef restoration suitability model incorporating physical parameters of oysters and public and industry usage, access etc. to identify priority sites for restoration.	1 Habitat suitability model developed which incorporates industry, Kabi Kabi and public interests	30 June 2020	In preparation	Baseline synthesis work in progress (data currently being collected and processed). PM to collate into a draft model for review by TNC, NSC, TAG.
(A2.2) Obtain necessary State Government permits/authorities including particular resource allocation authority, for oyster reef restoration	1 set of 'all' relevant state permits for oyster reef restoration in the Noosa River secured 1 set of 'all' relevant local government permits for oyster reef restoration in the Noosa River secured	31 December 2020	In planning	TAG will assist with forecasting schedule and actions for securing all relevant permits TNC to organise state permits NSC to organise local government permits
(A2.3) Community, industry and stakeholder consultation sufficient to gain majority support for reef restoration locations.	1 set of engagement records provided to Noosa Council of public and stakeholder consultations, including one-on-one	31 December 2020	In preparation	Bi-lateral introductory meetings commenced with stakeholders by PM in February 2020.

	meetings, open forums, media, etc. 1 written permit secured from Noosa Council formally allowing the project to construct reefs.		When required	
(A3.1) Community, industry and stakeholder consultation to identify most appropriate community volunteering opportunities (e.g. shell recycling, oyster gardens, oyster watch, video monitoring).	1 consultation completed 1 + volunteering opportunities identified	31 December 2020	In progress	Discussions with restaurants re: <i>Shuck Don't Chuck</i> shell recycling project commenced in November 2019. Preliminary discussions with NGOs about participating in project monitoring actions in progress. Volunteering now likely to be delayed until Phase III due to COVID-19 restrictions on movement and contact.
(A3.2) Establish at least one community volunteering program identified from the above process which takes into account current and future resources, management and interest.	1 + volunteering program defined and implemented <i>Record of volunteer hours dedicated to community volunteering programs, such as: shell recycling, oyster gardens, oyster watch, video monitoring.</i>	31 December 2020	In progress	Discussions on how best to engage volunteers underway but volunteering likely to be delayed until Phase III of the project due to COVID-19 restrictions.
(A4.1) Restoration at two sites (approx. 40m-50m shore length per site) which test reef design and construction and oyster growth and survival.	1 approval from Noosa Council secured to restore 2+ trial restoration sites in the Noosa River estuary 2+ sites recovered with	30 June 2021	Preliminary site investigations complete.	Community consultation to select trial sites pending. Habitat Suitability Modelling initiated. Two trial reefs forecast to be constructed in February 2021, COVID-19 allowing.

	at least overall 80 m shore length of reef constructed			
(A4.2) Restoration across multiple further sites, as determined by habitat suitability modelling and outcomes of community consultation.	1 approval from Noosa Council secured to restore an additional 2+ sites as agreed to by stakeholders, in the Noosa River estuary 2+ additional sites recovered with at least an overall additional 600m ² surface area of established oyster reef, constructed in the Noosa River estuary.	30 June 2021	In Planning	Additional reef restoration sites are planned to be presented to stakeholders in 2020.
(A4.3) Monitoring and evaluation study for both pilot and full restoration sites. Monitoring to include oyster metrics, invertebrates and fish use (detailed in MER plan).	1 related reef monitoring program established 2 six monthly status reports submitted 2 annual monitoring and evaluation report cards produced and published	As required	In planning In planning In planning	MER Plan drafted. Plan to be refined during 2020. Six monthly report templates prepared and will be populated once monitoring occurs. Annual report card template developed.
(A5.1) Run workshop with Noosa Council to identify ongoing focus areas for TNC support.	1 workshop facilitated	31 March 2020	Achieved	2019 workshop and discussions resulted in TNC-NSC project agreement and this project. TNC and NSC regularly communicate on areas of mutual interest and support.

<p>*(A5.2) Provide technical/peer review on minimum five plans/reports/studies if requested by Noosa Council.</p>	<p>5 + peer review reports submitted to Noosa Council during the three-year term of this Agreement, if requested by Noosa Council.</p> <p><i>If Noosa Council requests a peer review, TNC will provide a minimum of 3 experts who are qualified in the relevant area of expertise for Noosa Council consideration and Noosa Council's acceptance of 1 expert for the peer review.</i></p>	<p>30 June 2022</p>	<p>Review 1 of 5 complete</p>	<p>Review of <i>draft Noosa River Plan 2020</i> provided by TNC topic experts.</p>
<p>*(A5.3) Facilitate a minimum of three study tours of relevant sites in line with objectives and scope of the program in Australia/US if requested by Noosa Council (flights and incidentals covered separately by Noosa Council, accommodation and in country travel covered by this Grant).</p>	<p>3 + study tours facilitated during the three year term of this Agreement, if requested by Noosa Council.</p>	<p>30 June 2022</p>	<p>On hold</p>	<p>Study tour 1 was in planning for 2020, but has been placed on hold due to COVID-19 travel restrictions.</p> <p>The study tour schedule will be revisited by TNC and NSC once COVID-19 travel restrictions have been eased or lifted.</p>
<p>*(A5.4) Review and feasibility of opportunities for sustainable commercial and recreational fishing management options for the Noosa River.</p>	<p>1 Conservation Action Plan developed, as required</p> <p>1 set of Community Workshops facilitated, as required.</p>	<p>30 June 2022</p>	<p>As required</p>	<p>As required</p>
<p>*(A5.5) Facilitate access to TNC conservation networks and researchers if requested by Noosa Council.</p>	<p>1+ new formal networking connections facilitated to assist Noosa Council with ongoing and</p>	<p>30 June 2022</p>	<p>As required</p>	<p>As required</p>

	future marine conservation activities* * As and if requested by Noosa Council			
(A5.6) Promote Noosa Council's Noosa River Plan and shellfish restoration project in at least one national and one international conference.	1+ presentations given at national conference/s over 3 years 1+ presentations given at international conference/s over 3 years	30 June 2022	When appropriate	The Noosa River Plan will be profiled once finalised by NSC.
(A5.7) Promote Noosa Council's Noosa River Plan and shellfish restoration project to corporate, philanthropic and state/federal government audiences to establish further support for conservation activities that support the Noosa River Plan	1+ New corporate/ government/ philanthropic alliances formed 1+ New in-kind support/financial funding contributions secured	30 June 2022	Ongoing	TNC is making requests for funding support and partnerships to the Queensland and Federal Governments to support oyster reef restoration work in Noosa and SE Queensland more broadly.
(A5.8) Assess feasibility of seagrass restoration in Lake Cooroibah as a method of reducing sediment resuspension and increasing invertebrate biodiversity	1 Habitat mapping report, habitat suitability model, PhD study or similar output completed and presented to Noosa Council	30 June 2022	In planning	Contractors approached and quotes received for baseline seagrass mapping and assessment. TNC is currently seeking additional funds to resource this work.

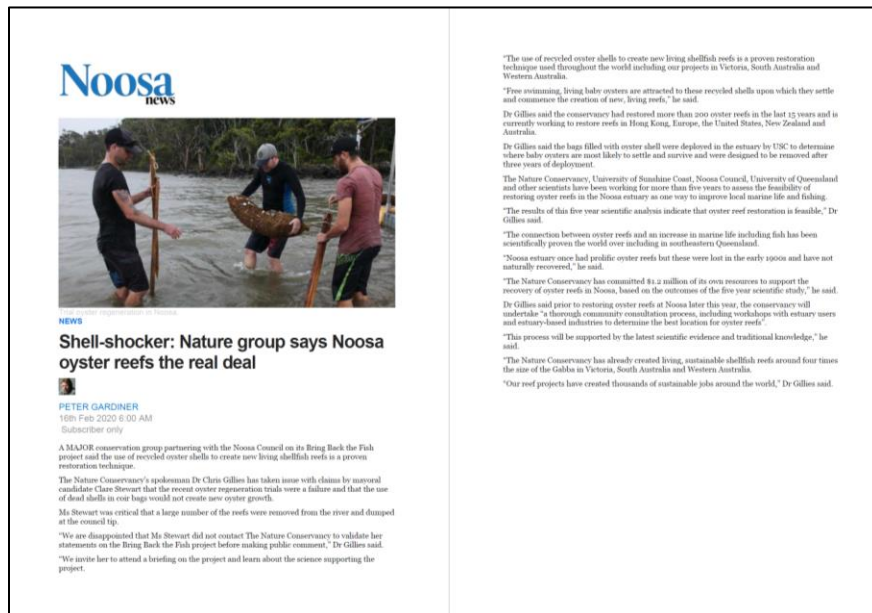
Key meetings/consultations

TNC communicated with six potential partners for the Noosa oyster recycling program – five restaurants and one wholesaler, and met with key project supporters including the Noosa Parks Association, Noosa Biosphere Reserve Foundation, The Thomas Foundation, as well as with Noosa Council staff on several occasions.

Formal public consultations regarding the siting of the first two trial reefs will commence in the next phase, with the new project manager planning bilateral meetings with many groups as well as a public forum to discuss the potential sites during the next reporting period.

Media

A. Project in the News



B. Project in Science

Dr Chris Gillies is a co-author on a new scientific study: Charting two centuries of transformation in a coastal social-ecological system: a mixed methods approach published in Global Environmental Change with Dr Ruth Thurston as Lead author. The study identifies Aboriginal use, including Kabi Kaibi, and early European harvesting of oysters from southeastern Queensland (including Noosa). TNC will release a media statement in March on the study, which will mention the Bring Back the Fish project as an example of restoration.

Major events

A. Project at Noosa Enviroforum

Thursday 25th July (2019), TNC Program Director, Oceans, Chris Gillies. presented at Noosa Shire Council.

Friday 26th July (2019), TNC Program Director, Oceans, Chris Gillies. presented at the Noosa 'Enviroforum'.

On the 29th of November 2019, TNC Chief Scientist, Pr. Hugh Possingham, presented at the Noosa 'Enviroforum'.

Next steps – 6 months

The steps planned for the next six months of the project include:

- Meet with key stakeholders in bilateral or group meetings.

- Secure Noosa Council endorsement for the Project Management Plan, Communications Plan and MER Plan.
- Develop the Risk Assessment Plan and present to Noosa Council for endorsement.
- Form the Technical Advisory Group (TAG) and host TAG Meeting 1.
- Consolidate data to support the Habitat Suitability Modelling and site selection.
- Host community consultation workshop 1 to help select the first two trial reef sites.
- Establish the pilot *Shuck Don't Chuck* shell recycling project.
- Identify relevant works contractors.
- Develop and secure all relevant permits with the support of key players.
- Develop Scope of Works, reef design and associated documentation for reef construction.
- Procurement of contractors.
- Give presentations to key stakeholders, as required.
- Coordinate one technical study tour for select staff from Noosa Council.

Summary of financial expenditure

PROJECT COSTS	Total Budget	Expenditure to date	Remaining budget
Objective 1. Project governance and support	861,982	63,361.53	798,620.38
Objective 2. – Site selection	293,332	0.00	293,332.40
Objective 3. - Oyster restoration	580,289	0.00	580,288.69
Objective 4. Community engagement and media	424,397	105,702.61	318,694.39
Objective 5 – Noosa River Plan support	240,000	104,264.90	135,735.10
Total Budget/ Expenses (GST exclusive)	2,400,000	273,329.04	2,126,670.96

Appendix 1: Goals, objectives and deliverables of the project

Project Goal	To improve the environmental health of the Noosa River Estuary through active restoration and conservation activities that engage the Noosa Community in meaningful conservation and support economic and community wellbeing.			
Objectives	Deliverables	Expected completion date (from 1 July 2019 unless otherwise stated)	Measurable outcomes	Party responsible for Deliverable
A-1 Project establishment and management Establish effective project governance, management, communication and reporting sufficient to successfully implement shellfish restoration project	(A1.1) A Technical Advisory Group (TAG) is established to provide project oversight. This will include a clear terms of reference and consist of representatives from key stakeholders (NSC, TNC, Kabi Kabi and at least two other independent parties).	3 months from appointment of Project Manager	<p>Terms of reference for the TAG developed, TAG is established and at least one meeting held.</p> <p>Evidence of Kabi Kabi involvement.</p>	<p>TNC</p> <p>TNC</p>
	(A1.2) Appointment of dedicated project manager who is a marine biologist with extensive project management experience, for the term of the Agreement.	6 months	Appointment of Project Manager to oversee the Project.	TNC
	<p>(A1.3) A Project Implementation Plan detailing at a minimum: A detailed risk assessment associated with the project. A communications and media plan, outlining media protocols, opportunities and the role of TNC and NSC. A monitoring, evaluation and reporting plan which identified ecological and social monitoring programs, how they will be reported on and how this will fed back into the project.</p>	6 months	<p>A project implementation plan produced by TNC and approved by NSC.</p> <p>Approval for the plan (if acceptable) provided in writing by NSC by no later than two months after delivery.</p>	<p>TNC</p> <p>TNC & NSC</p>

Project Goal		To improve the environmental health of the Noosa River Estuary through active restoration and conservation activities that engage the Noosa Community in meaningful conservation and support economic and community wellbeing.		
Objectives	Deliverables	Expected completion date (from 1 July 2019 unless otherwise stated)	Measurable outcomes	Party responsible for Deliverable
	(A1.4) Participate in public forums to provide the Noosa community opportunities to learn about the project and TNC.	Ongoing for the duration of the project	<p>Participate in at least three public presentations/forums in the first 12 months (ideally within first 9 months) with the purpose to provide the Noosa community opportunities to learn about the project and TNC.</p> <p>Participate in at least six public presentations/forums in years 2 and 3, with the purpose to provide the Noosa community opportunities to learn about the implementation and outcomes of the project.</p> <p>A minimum three media statements throughout duration of project</p>	<p>TNC</p> <p>TNC</p> <p>TNC & Noosa Council</p>
	(A1.5) Annual project reports and final report each of which address, at a minimum: Activities undertaken during the subject financial year, status and progress against deliverables, budget progress, income and expenditure, report against monitoring and evaluation program and measurable outcomes and outline of proposed upcoming	<p>For each annual project report - Yearly</p> <p>For the final report – 30th September 2022</p>	<p>An annual project report (and, when applicable, final report) is prepared and produced by TNC, endorsed by Technical Advisory Group, and delivered by TNC to Noosa Council, within 60 days of the end of each financial year during the term of the Agreement.</p> <p>The annual report (and, when applicable, final report) in Measurable Outcome 9 is presented</p>	<p>TNC</p> <p>TNC & NSC</p>

Project Goal	To improve the environmental health of the Noosa River Estuary through active restoration and conservation activities that engage the Noosa Community in meaningful conservation and support economic and community wellbeing.			
Objectives	Deliverables	Expected completion date (from 1 July 2019 unless otherwise stated)	Measurable outcomes	Party responsible for Deliverable
	works/activities for future period.		to Noosa Council by TNC in conjunction with Noosa Council officers for its approval for endorsement within 90 days of the end of each financial year during the term of the Agreement, and (if acceptable) approved by Noosa Council.	
	(A1.6) 6 monthly status and progress reports which address, at a minimum: Progress against deliverables and monitoring and evaluation report. 6 monthly financial statements including a statement of Project income/funding and expenditure	6 monthly	6 monthly status and progress reports, and financial statement, are produced, endorsed by the Technical Advisory Group, and provided to NSC, within 30 days of end of each six (6) month period. Reports and financial statements due at the end of the financial year may be included with annual reports and the final report.	TNC
A-2: Site selection Identify suitable restoration sites for Phase II and Phase III and appropriate reef design that minimize estuary-user conflict whilst optimizing reef rehabilitation	(A2.1) Oyster reef restoration suitability model incorporating physical parameters of oysters and public and industry usage, access etc. to identify priority sites for restoration.	12 months	Habitat suitability model which incorporates industry, Kabi Kabi knowledge and public interests.	TNC
	(A2.2) Obtain necessary State government permits/authorities including particular resource allocation authority, for oyster reef restoration	18 months	Outcomes: (a) Obtain all required State government permits/authorities for installation of oyster reefs. (b) Obtain all required Local government	13(a) - TNC 13(b) – NSC

Project Goal	To improve the environmental health of the Noosa River Estuary through active restoration and conservation activities that engage the Noosa Community in meaningful conservation and support economic and community wellbeing.			
Objectives	Deliverables	Expected completion date (from 1 July 2019 unless otherwise stated)	Measurable outcomes	Party responsible for Deliverable
	Obtain necessary local government permits/approvals including in particular fisheries development approval for oyster reef restoration		permits/approvals for installation of oyster reefs are obtained.	
	(A2.3) Community, industry and stakeholder consultation sufficient to gain majority support for reef restoration locations.	18 months	Records of public and stakeholder consultation, including one-on-one meetings, open forums, media, etc.	TNC
A-3 Community engagement Strengthen community interest, support and participation in Noosa River restoration by establishing a community volunteering program to support reef restoration	(A3.1) Community, industry and stakeholder consultation to identify most appropriate community volunteering opportunities (e.g. shell recycling, oyster gardens, oyster watch, video monitoring).	18 months	Records of public and stakeholder consultation, including one-on-one meetings, open forums, media, etc.	TNC & Noosa Council
	(A3.2) Establish at least one community volunteering program identified from the above process which takes into account current and future resources, management and interest.	18 months	Record of volunteer hours dedicated to community volunteering programs, such as: shell recycling, oyster gardens, oyster watch, video monitoring.	TNC & NSC
A-4 Reef restoration Restore oyster reef ecosystems across the lower estuary	(A4.1) Restoration at two sites (approx. 40m-50m shore length per site) which tests reef design and construction methods and oyster growth and survival.	24 months	At least two (2) sites with at least overall 80m shore length of reef restored, and being actively monitored.	TNC
	(A4.2) Restoration across multiple sites, as determined by habitat suitability modelling and	36 months	In addition to the two pilot sites, a number of sites comprising a minimum of a further	TNC

Project Goal	To improve the environmental health of the Noosa River Estuary through active restoration and conservation activities that engage the Noosa Community in meaningful conservation and support economic and community wellbeing.			
Objectives	Deliverables	Expected completion date (from 1 July 2019 unless otherwise stated)	Measurable outcomes	Party responsible for Deliverable
	outcomes of community consultation.		aggregated 600m ² surface area of restored oyster reef in the Noosa River estuary.	
	(A4.3) Monitoring and evaluation study for both pilot and full restoration sites. Monitoring to include oyster metrics, invertebrates and fish use (detailed in MER plan).	Ongoing for duration of project, at least 6 monthly	Annual monitoring and evaluation report card with 6 monthly status reports to be provided.	TNC
A-5 Noosa River Plan Provide technical and expert support to Noosa for planning, implementation and evaluation associated with appropriate elements of the Noosa River Plan and other coastal and marine management plans	(A5.1) Run workshop with NSC to identify ongoing focus areas for TNC support.	9 months	Workshop completed.	TNC & NSC
	*(A5.2) Provide technical/peer review on minimum five plans/reports/studies if requested by Noosa Council.	Ongoing for duration of project	Minimum 5 peer review reports completed during the three-year term of this Agreement, if requested by NSC. If NSC requests a peer review, TNC will provide a minimum of 3 experts who are qualified in the relevant area of expertise for NSC consideration and Noosa Council's acceptance of one expert for the peer review.	TNC
	*(A5.3) Facilitate a minimum of three study tours of relevant sites in line with objectives and scope of the program in Australia/US if requested by Noosa Council (flights and incidentals covered separately by Noosa Council, accommodation	36 months	Minimum three individuals on study tours completed during the three-year term of this Agreement, if requested by Noosa Council.	TNC & NSC

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Objectives	Deliverables	Expected completion date (from 1 July 2019 unless otherwise stated)	Measurable outcomes	Party responsible for Deliverable
	and in-country travel covered by this Grant).			
	*(A5.4) Develop a Conservation Action Plan for specific issues (not yet determined) relevant to the Noosa Estuary (including community workshops) if requested by Noosa Council. ¹	36 months	Conservation Action Plan and Community Workshops completed as required.	TNC & NSC
	*(A5.5) Facilitate access to TNC conservation networks and researchers if requested by Noosa Council.	Ongoing for duration of project	A number of new contacts/networks to assist Noosa Council with ongoing and future marine conservation activities.	TNC
	(A5.6) Promote Noosa Council's Noosa River Plan and shellfish restoration project in at least one national and one international conference.	36 months	Presentation to at least one national and one international conference.	TNC & NSC
	(A5.7) Promote Noosa Council's Noosa River Plan and shellfish restoration project to corporate, philanthropic and state/federal government audiences to establish further support for conservation activities that support the Noosa River Plan.	Ongoing for duration of project	A number of new corporate/ government/ philanthropic alliances and new in-kind support/financial funding contributions.	TNC & NSC