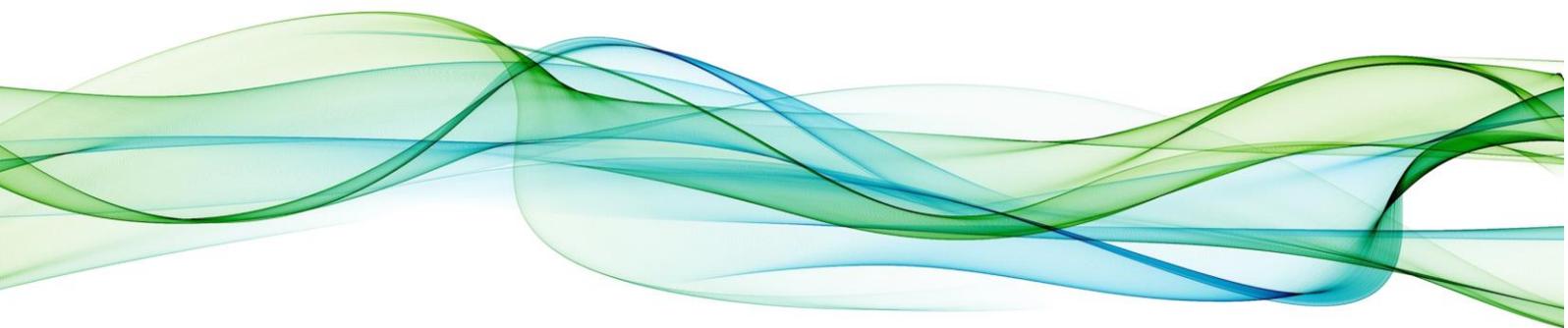




MARINE ESTATE MANAGEMENT AUTHORITY

Marine Estate Management Strategy Annual Report 2018-19

IMPLEMENTATION STAGE 1 – YEAR 1



www.marine.nsw.gov.au

Marine Estate Management Strategy Annual Report 2018-19: Implementation Stage 1 - Year 1

This report covers the period 1 July 2018 to 30 June 2019

Images

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Introduction

On 16 August 2018, the NSW Government announced the release of the ten year [Marine Estate Management Strategy](#) (2018-2028) (the Strategy) and funding of \$45.7 million for the first stage of implementation (2018/19 – 2019/20). This funding represents a significant investment in the management of one of our greatest natural assets, the NSW marine estate. The marine estate comprises tidal rivers and estuaries, the shoreline, submerged lands, offshore islands, and the waters of the NSW coast from the Queensland to the Victorian border and out to three nautical miles offshore with more than 1,750km of coastline, 826 beaches and 185 estuaries.

The Strategy provides the overarching framework for coordinated management of the marine estate to deliver its vision for *'a healthy coast and sea, managed for the greatest wellbeing of the community, now and into the future'*. This framework is underpinned by the [NSW Marine Estate Threat and Risk Assessment \(TARA\)](#), and outlines a series of management actions across nine initiatives to address the priority threats to environmental assets and social and economic benefits derived from the marine estate by:

1. improving water quality and reducing litter
2. delivering healthy coastal habitats with sustainable use and development
3. planning for climate change
4. protecting the Aboriginal cultural values of the marine estate
5. reducing impacts on threatened and protected species
6. ensuring sustainable fishing and aquaculture
7. enabling safe and sustainable boating
8. enhancing social, cultural and economic benefits
9. delivering effective governance.

The Strategy is being implemented in stages, with Stage 1 spanning the first two years (2018/19 – 2019/20). The actions that have been funded in Stage 1 address some of the most pressing threats to the marine estate, such as water quality, as well as establishing foundational activities and pilots.

About the annual report

The Marine Estate Management Authority (the Authority) publishes its annual report each year (Authority Annual Report) to communicate progress in achieving the various marine estate reform programs. A key program of the marine estate reforms is the development and implementation of the Strategy. The Marine Estate Management Strategy Annual Report 2018-19: Implementation Stage 1 - Year 1 (Strategy Annual Report) accompanies the Authority Annual Report, which reports on the broader marine estate reform progress each year.

The Strategy Annual Report will provide information on the progress of the Strategy actions and initiatives being implemented each year, risk management, finances and anticipated deliverables in the following year.

It is compiled following the end of each financial year and made available as soon as practical thereafter. It is informed by the compilation of the four previous quarterly reports provided to the Authority in the 12 month period and is the final report for the year in review. A traffic light reporting system is used in the quarterly reports to illustrate the overall status of the action, initiatives or program, as well as the status of its key management areas including scope, schedule, budget and risk. The quarterly reports prompt staff to report milestones and outcomes achieved as well as activities and deliverables expected in the next quarter.

This Strategy Annual Report is in two sections:

1. the year in summary – which provides an overview of the actions to be delivered, intended outcomes, fast facts, financial summary and key challenges
2. progress of the Strategy initiatives.

This Strategy Annual Report does not intend to evaluate performance of the Strategy. Management evaluation will occur at strategic periods throughout the ten year life of the Strategy, to enable adaptive management and will be in accordance with Marine Integrated Monitoring Program. An evaluation of progress against short term outcomes will occur at the end of Stage 1 (>30 June 2020). Subsequent evaluations will occur at the Strategy midterm (five year) review and again at ten years (end of the Strategy).

Definition: on-ground works

For the purposes of this report, on-ground work includes work carried out to construct an asset, install or upgrade facilities, or to modify the physical environment. On-ground work includes work such as erosion control works, wetland restoration, estuary bank protection works, oyster reef restoration, riparian vegetation rehabilitation and building research facilities.

Section 1 – The year in summary

Laying the foundations

Year 1 has focused on laying the foundations for effective Strategy delivery. Critical tasks have included the development of a governance and project management system; commenced developing a Marine Integrated Monitoring Program (MIMP) that includes a monitoring and evaluation framework; recruitment of project delivery staff; development of agreements and contractual arrangements with partner agencies, external partners and organisations; and building essential connections with stakeholders and the broader community.

Building connections

The Strategy aims to improve the coordination, consistency, transparency and inclusiveness in the way the marine estate of NSW is managed. To achieve this, it is essential that stakeholders across the marine estate can meaningfully contribute to the development and implementation of Strategy initiatives.

The Strategy was developed with advice from community groups, peak industry groups, scientists, Aboriginal communities, and state and local government agencies across the NSW marine estate. This has ensured a rigorous and practical approach to managing the values of the marine estate.

Engagement with key stakeholders and the community follows the [engagement principles](#) developed by the Marine Estate Management Authority, and can be broken down into the following categories:

- early Involvement
- participation
- communication, accessibility and transparency
- workshops, training and education delivered and evaluated.



Figure 1. Our partners in the delivery of the actions. Achieving Stage 1 actions depends on collaboration across government, business, land managers, interest groups and the community.

Coastal councils

Coastal councils are recognised as key partners in the implementation of the Strategy. Not only are councils along the NSW coast integral in helping to identify coastal and marine areas that are under threat and in need of management action, but they are also important partners in addressing these threats. In addition they also provide an essential link to the community and facilitate actions that enhance the community benefits we all derive from the marine estate. The Strategy is designed to complement the work of coastal councils, and over the first year of the Strategy, there has been a strong focus on identifying the links with council's Coastal Management Plans (CMPs) and developing partnerships with councils to collectively achieve common outcomes. More than 30 meetings have been held with coastal councils since August 2018 and coastal councils are involved in many of the 41 actions under way in this first year, particularly those seeking to improve water quality, reduce litter, improve habitat and prepare for climate change. Further details are included in Section 2.

Since the *Coastal Management Act 2016* commenced, councils across the NSW coast have been developing CMPs for their areas. \$1.2 million of Strategy funding was spent on partnerships with various coastal councils to implement pilots of a 'risk-based framework' for improving the management of stormwater discharges to receiving waterways. Outcomes of the framework are driving changes to local planning instruments and/or being used to inform CMPs.

Many local government areas along coastal NSW have benefited from the Strategy investment in the first year. For example, some projects build on previous water quality improvement work by councils and extend the benefits by rehabilitating riparian areas, undertaking estuarine bank protection works and mitigating erosion from rural roads and tracks.

Industry

Economic benefits are a component of the Strategy, with actions contributing to improved viability and sustainability of coastal and marine industries, providing new economic opportunities and supporting industry innovation. Key industries involved in Strategy projects include tourism, fishing, aquaculture, agriculture and emerging horticulture industries. The Strategy aims to enhance social, cultural and economic benefits while ensuring activities are undertaken sustainably. Business owners and staff from various industries are collaborating with the Strategy in some projects across the initiatives by attending training, joining advisory groups, providing feedback and participating in research trials. Further details are included in Section 2.



Figure 2. Creating opportunities for industry.

Aboriginal people

Coastal Aboriginal people have been managing Land and Sea Country for tens of thousands of years, however, their involvement in coastal and marine management decision making to date has been limited. The Strategy is addressing this through employment of Aboriginal people, providing training and skills development in marine industries and natural resource management, as well as facilitating a range of actions to better manage Sea Country. Three new identified positions have been created at DPI Fisheries under the Strategy including a Senior Manager, Project Officer and Liaison Officer. These positions have been filled in Year 1, Stage 1 to ensure greater input into management of Sea Country. A focus has been on the Aboriginal communities on the South Coast of NSW. The success of these projects will be extended to other coastal areas in Year 2. Further details are included in Section 2 of this report.

NSW community

A range of methods have been used to share information about the benefits and progress of the Strategy with the broader NSW community. A variety of channels have been used to provide clear, consistent and accurate information to this large stakeholder group including:

- over 40 media opportunities promoting Strategy actions through websites, print, radio and television
- a special edition of the marine estate newsletter on the Strategy was disseminated to approximately 1400 NSW community members.

The benefits of the Strategy have been communicated to stakeholders via the [website](#) where the [Strategy](#) itself can be downloaded, for stakeholders wanting to read the details of specific Strategy benefits. The website also provides snapshots, graphics and detailed planning documents relating to how the Strategy is being [implemented](#).

For further information about the Strategy communication and engagement for 2018 / 2019 please see Appendix A – Communications and engagement.



"If these kids can pass that onto their non-Aboriginal friends and teach them about their culture, it builds up their pride, means they come to school more often, we get better outcomes academically for them which is better for them in their adult lives."
Paul Carriage - Coordinator Aboriginal Learning Centre Batemans Bay High School.

Strategy snapshots

The first year of the Strategy saw the implementation of a variety of actions across the NSW marine estate (Figures 4-7). Communities across the marine estate are already benefiting from cleaner waterways, better engagement and consultation, training and employment opportunities and protection of important coastal and marine species. Key highlights from the first year include:



Figure 3. Snapshots of Year 1 of the Strategy.

Key actions the Strategy will deliver



Figure 4. Map illustrating the spatial extent of the Strategy projects by local government area.

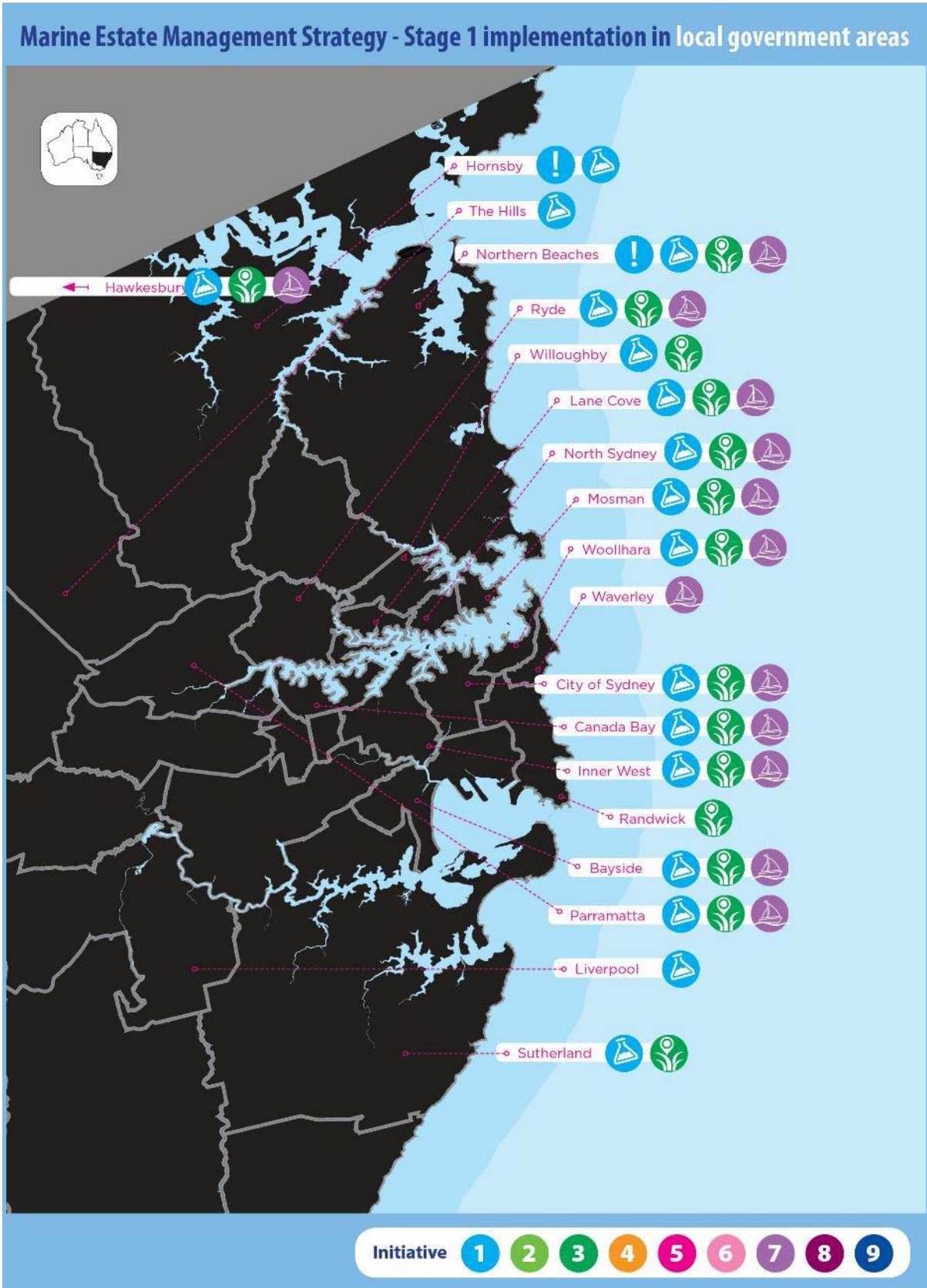


Figure 5. Map illustrating the spatial extent of the Strategy projects in the Greater Sydney area.



Figure 6. Strategy project icons that are being implemented in specific areas.



Figure 7. Statewide Strategy projects that are not specific to an area.

Strategy outcomes

A series of eight overarching program outcomes were developed by all Strategy initiative leads and Marine Estate Expert Knowledge Panel (Knowledge Panel) members through a series of workshops in 2018/19. The outcomes are inherently linked across initiatives and articulate the desired long term change intended to result from implementation of the Strategy.



Achievements in Year 1



90+ jobs created
70+ in regional NSW
22 Aboriginal rangers employed



12,000+
 trees and shrubs planted

>\$4,000,000
 contracted for on-ground works

- ▶ 30+ km of foreshores protected from stock access
- ▶ completed 17 riparian vegetation rehabilitation works
- ▶ completed bank protection works at 9 sites
- ▶ demonstration sites for improved agricultural practices underway



>\$11 million
 allocated to address water pollution



- ▶ developing a marine litter campaign
- ▶ working with local government to improve waterway health in urban catchments
- ▶ measuring estuary water quality across the state
- ▶ engaging with agriculture industries to achieve improved water quality outcomes

water quality improvements



- ▶ completed 7 of 16 gravel road sediment and erosion control works
- ▶ new facilities for agricultural fertiliser use research established
- ▶ oyster reef restoration started in the Port Stephens-Great Lakes marine park

marine wildlife



- ▶ 180 people trained in marine wildlife response and preparedness
- ▶ delivered wildlife observer program
- ▶ engaged with fishing industry to reduce wildlife engagement determine threats to fish assemblages

150
Aboriginal community members trained
 and qualified for general boat licence, deckhand training and coastal weed management




40+
Master fisherman graduates
 completed training

160+
maritime infrastructure projects delivered
 under the Boating Now Program




900+
domestic commercial vessel inspections undertaken
 for safety and environmental standards

Marine Integrated Monitoring Program
 in development to track the Strategy's performance



Financials and staffing

Finance

The Strategy was allocated \$45.7 million over the first two years. In Year 1 approximately \$19.61 million was planned to be expended on projects. The majority of funding was allocated to actions that improve water quality, including more than \$7 million for on-ground works. Full funding sought for actions to address threats to climate change and threatened and protected species was not realised in Stage 1, but will be a priority in Stage 2 of the Strategy delivery. Figure 8 illustrates funding allocated to each Strategy initiative in Year 1. Due to challenges in Strategy implementation (described in Key Challenges below), actual expenditure was less than planned expenditure for most initiatives (Figure 9). At June 2019 (end of Year 1) \$11.9 million had been spent on Strategy actions, which was 39% below what was anticipated (if projects and staff had commenced on 1 July 2018 as initially anticipated). Underspends were carried forward into Year 2 and will be used in the second year to deliver on the work planned, but not achieved, in the first year, as well as delivery of Year 2 work (Figure 10).

Year 1 Strategy budget

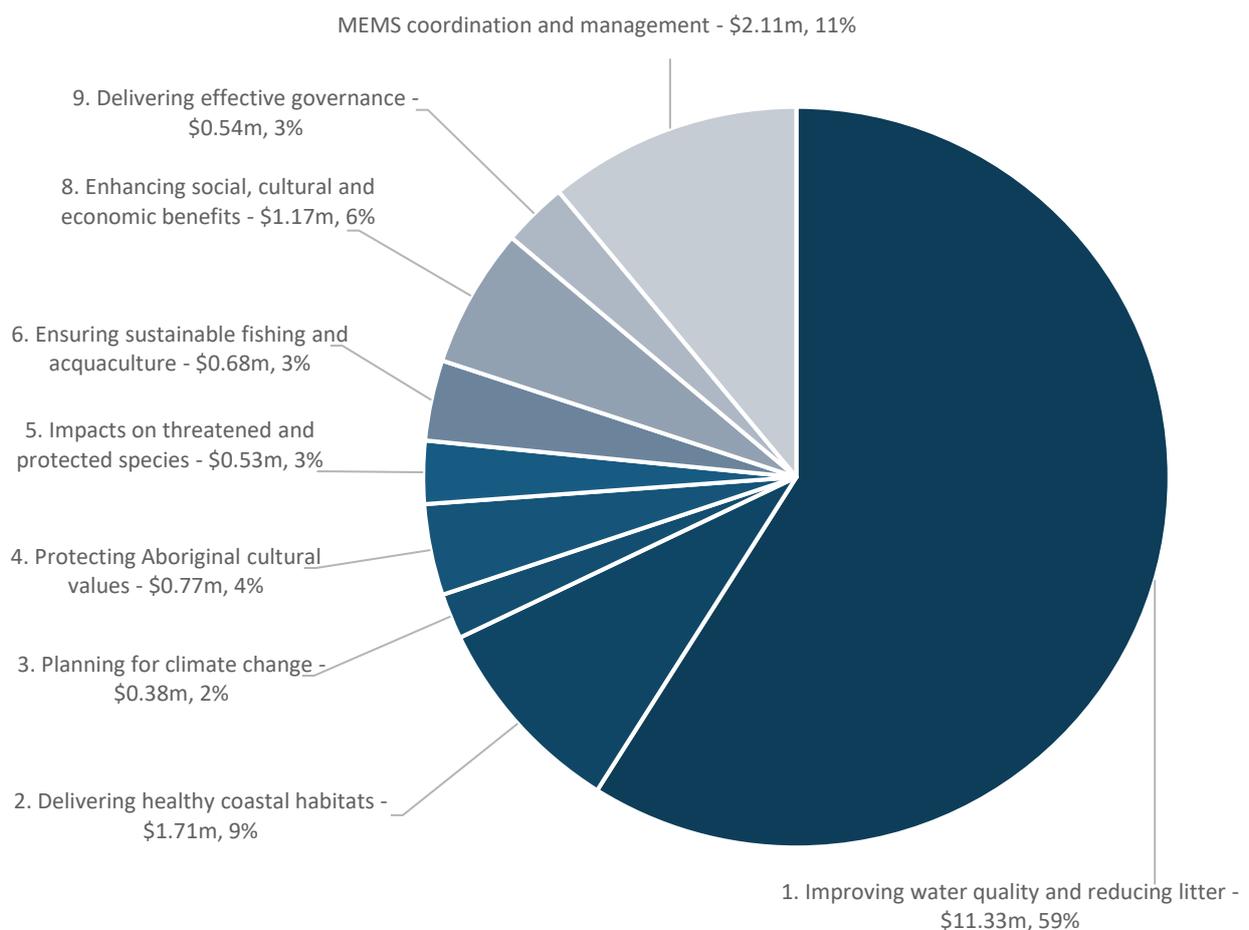


Figure 8. Year 1 Strategy Budget delivering for each initiative

Note: Initiative 7 - Enabling safe and sustainable boating is not shown in the figure as it was funded by Transport for NSW.

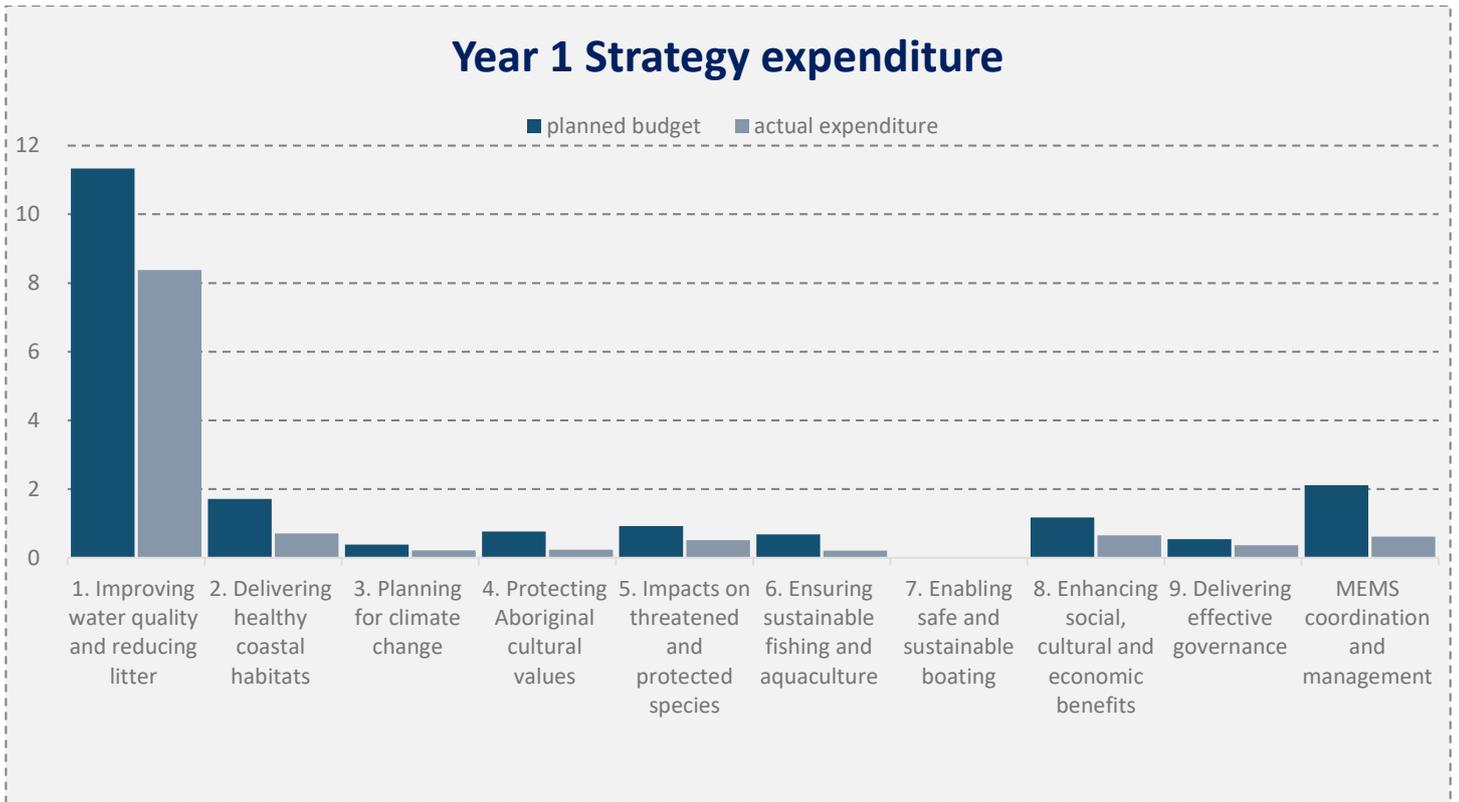


Figure 9. Year 1 planned v actual expenditure delivering on initiatives across the Strategy.

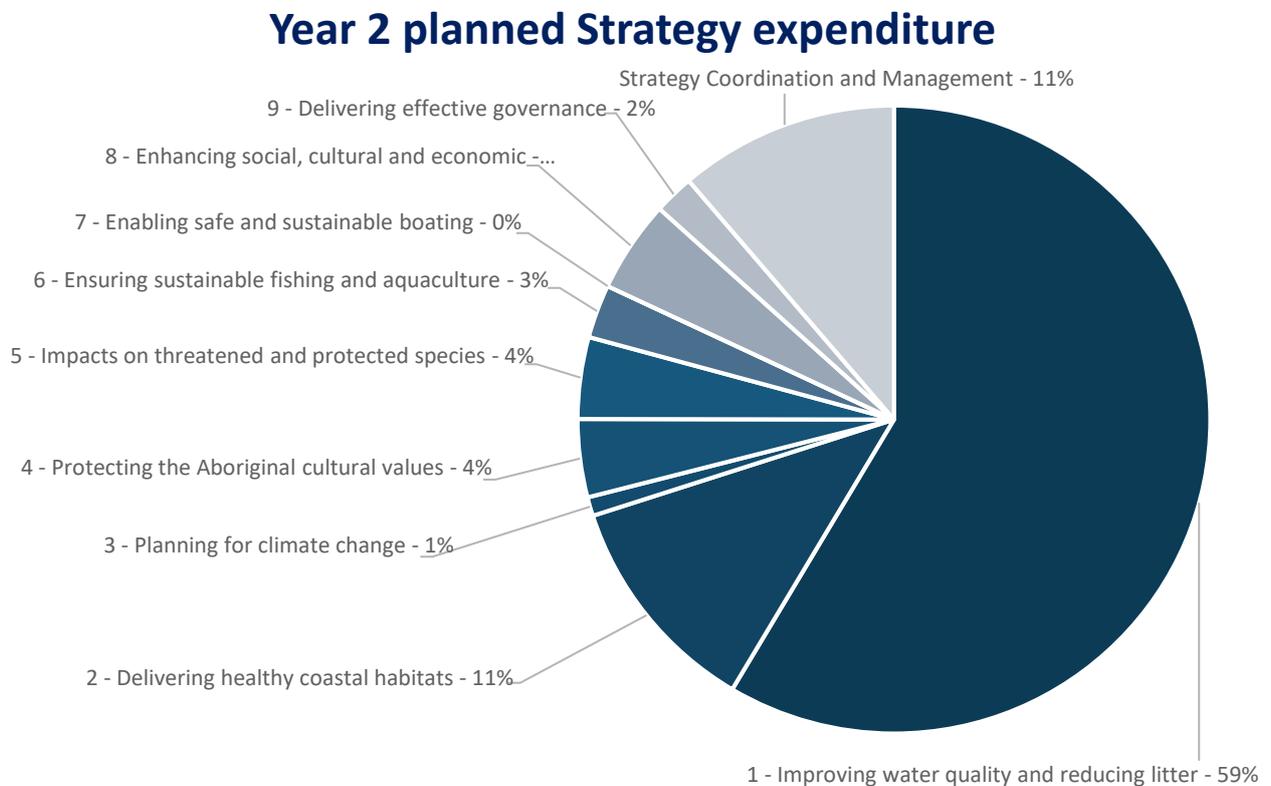


Figure 10. Planned expenditure in second year of the Strategy

Staffing

Staff resources allocated to the Strategy in Year 1 included 92 new positions (79 Full-time Equivalent roles (FTE)) across multiple government agencies. These are temporary positions that enable the delivery of the Strategy and facilitate the broad-scale benefits to the community over time.

The number of positions created across the Strategy agencies are as follows:

- DPI Fisheries – 50 positions
- DPIE Agriculture – 12 positions
- Local Land Services – 10 positions
- DPIE Planning and Assessment – 1 position
- Natural Resources Access Regulator – 1 position
- DPIE Water – 3 position
- DPIE Crown Lands – 2 position
- DPIE Environment, Energy and Science – 13 positions.

Additionally, there is substantial support provided by ongoing staff across the Strategy government agencies on an in-kind basis. The success of the Strategy over its ten-year life is dependent on further commitment to resourcing in subsequent stages.

The Strategy has also created additional employment across the NSW coast by engaging with contractors and consultants for research, on-ground works and community engagement.

Key challenges and risks

The first year of the Strategy implementation required an ambitious work schedule. Not only did it include establishing the governance, financial and administrative foundations for the subsequent nine years of implementation, but also it saw the commencement of 41 of 53 actions. Year one was not without its challenges. These challenges were identified and managed through a robust risk assessment, management and reporting framework. Training on Strategy governance and project management arrangements was delivered to all initiative and action leads in March 2019 to ensure consistency in all aspects of project management, including risk assessment and reporting across the program.

Over the first year, risks were assessed and recorded in risk registers at the action, initiative and program levels. They were formally reviewed by the Authority every three months during quarterly reporting periods, and more frequently on a case-by-case basis if required. The risk analysis criteria used were designed specifically for the Strategy using the most sensitive criteria for risk likelihood and consequence acceptable across all Strategy agencies. A risk management plan is required when risks are assessed to meet certain criteria.

The most significant risks to the Strategy program identified for the first year of Strategy implementation fell into two broad categories, which impacted upon a number of Strategy actions and initiatives, as documented in the quarterly reports:

- delayed commencement of the Strategy and subsequent recruitment delays
- delayed stakeholder engagement and partner collaboration.

Delayed commencement of the Strategy

The Strategy was announced on 16 August 2018 (1.5 months into the financial year). Once announced, however, over 90 new positions required recruitment action and five Memorandum of Understandings (MoUs) needed to be established with partner agencies before work on many projects could commence. Early 2019 saw most staff in place who could then implement their

projects (6 month delay), and several MoUs negotiated. Implementation of many actions therefore only gained momentum in early 2019, due to these initial delays. The risks posed by these delays were monitored each quarter and reported to the Authority.

At June 2019 (end of Year 1) \$11.9M had been spent on Strategy actions, which was 39% below what was anticipated (if projects and staff commenced on 1 July 2018). Underspent funds have been carried forward and have facilitated a greater momentum in Strategy delivery in Year 2, with a full complement of staff to facilitate this.

Delayed stakeholder engagement and partner collaboration

Collaboration with Strategy stakeholders and partners is essential to the effective implementation of actions, to meet the Strategy objectives and outcomes. As the NSW marine estate is vast, and the needs of the people who use it are so diverse, maintaining meaningful engagement and collaboration has come with its challenges. Consultation on the best way to deliver many of the actions in the Strategy was reliant on staff being in place to discuss opportunities for collaboration at the action and sub-action level. Recruitment delays therefore impacted heavily on these discussions across the state.

In addition, the marine park proposal for the Hawkesbury Shelf marine bioregion was released on 16 August 2018 concurrently with the Strategy. This led to some confusion within the community who did not understand the relationship between the two and what the \$45.7 million funding was for. Addressing the confusion was important, particularly when seeking collaboration from a range of stakeholder groups in delivering Strategy actions.

Overall, there have been improvements in community understanding of the Strategy over the first year. These improvements have stemmed from a range of activities including:

- creating partnerships with local councils, state agencies, industry, research institutions and community groups in the implementation of actions
- engaging with businesses in actions relevant to their interests
- completion of on-ground works and communication of outcomes
- community education strategies
- employment and training opportunities for members of the community.

This multifaceted approach aims to involve people in the Strategy implementation as much as possible, giving a sense of enhanced stewardship for the marine estate. It also demonstrates the positive work of the Strategy to all levels of the community including government, privately owned businesses, community groups, schools and individuals. By building on this in the second year of the Strategy, it is anticipated that the public understanding of the Strategy will continue to improve.

Variations to planned projects

There were two variations to the scope of planned Stage 1 projects in the first year of the Strategy, primarily due to the key challenges above, but also as lessons were learnt. These variations were managed at the individual project (action) level and did not impact the broader scope of the Strategy.

Originally, the scope for the Clean Coastal Catchments project under Initiative 1 included working with the dairy industry on the far south coast of NSW, however, after further assessment it was determined that it was unfeasible to complete this work within the timeframes and resources available in addition to the other work planned. Also, new information became available regarding risk to water quality in the Coffs Harbour region, being driven by high recorded levels of nitrogen and phosphorus from greenhouse vegetable agriculture. It was therefore determined that more valuable outcomes could be achieved within Stage 1 of the Strategy if the Clean Coastal Catchments project focussed on a smaller geographical range (mid to north coast) and included work with greenhouse vegetable farmers. The work that had been planned with south coast dairy

farmers (which is lower risk) will commence in Stage 2 of the Strategy. Meetings have been held with south coast local councils to update them on the progress of the Strategy.

The need to vary the scope of this project was identified early and was communicated to Strategy agencies during internal working group meetings and to the Authority in the first quarterly report. In November 2018, an update was given to the Coffs Harbour Estuary Advisory Committee, and Fertiliser Stewardship workshop was held. The following month, the fertiliser stewardship Forum was established and an article about the greenhouse vegetables project was published in the FertCare newsletter.

The Human Activity Mapping project under initiative 8 of the Strategy aims to develop an interactive map of the human activities within the NSW Marine Estate. Once complete, this interactive map will help inform management decisions, and will be a resource that members of the public can access. Unfortunately, the delayed commencement of the Strategy followed by delays in staff recruitment meant that it would not be possible to deliver on all of the goals that were set for Stage 1 of the project. Internal stakeholder workshops were held to review and reprioritise the goals for the project, given the restrictions on timeframes. It was agreed that the scope would be varied to focus on development of existing datasets to facilitate broader marine planning portal development and that the economic valuation component of the project would be postponed.

Scope variations have been communicated to stakeholders through regular Strategy agency meetings, regular stakeholder working group meetings and in quarterly reporting to the Authority.

Section 2 – Key initiatives progress



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Initiative 1 - Improving water quality and reducing litter

Initiative objective

To improve water quality and reduce marine litter for the benefit of marine habitats, wildlife and the community.

Initiative long term outcomes

- Improved water quality and waterway health in the marine estate in alignment with community values.
- Reduction in input of litter to the marine estate in alignment with community values.
- Maintained or improved biodiversity and marine habitats.

Budget Year 1

\$11,330,560

The problem/opportunity

Water pollution was identified by the statewide TARA as the number one threat to the marine estate. Water pollution and litter are together a significant contributor to poor water quality in the marine estate. Water quality affects the health of habitats and wildlife as well as the vast social, cultural and economic benefits provided by the marine estate.

Putting the Strategy into action

actions

our achievements

actions by local government area

Risk-based framework for waterway health



- ✓ **established** partnerships with four coastal councils to assess the cost-effectiveness of stormwater treatment devices and stormwater management targets, assess cumulative impacts, and alignment of framework with existing plans, programs and requirements in local planning legislation and policy

actions

our achievements

- ✓ **engaged** seven industry practitioners to support council's implementation of the framework in pilot areas
- ✓ **completed** mapping of biodiversity values of waterways and water dependent ecosystems to inform the first step of the framework. Maps were produced for 33 local government areas in the Greater Sydney region for input to their Local Strategic Planning Statements and are available on the NSW Government's '[Sharing and Enabling Environmental Data](#)' (SEED) website
- ✓ **conducted** several collaborative workshops and stakeholder forums to raise awareness of the framework and demonstrate its use
- ✓ **agreement** established with Local Land Services to enable delivery of on-ground works to improve estuarine health. Sites have been selected in the Richmond catchment and other priority locations to address water quality issues. Rehabilitation of riparian areas, bank protection and mitigating erosion from rural roads and tracks on identified priority areas have commenced in the Illawarra, Shoalhaven, Eurobodalla and Bega Valley Shires.

Coastal floodplain management**Floodplain management through governance**

- ✓ **collaborating** with Department of Planning, Industry and Environment - Water to consider improved management options possible under the *Water Management Act*
- ✓ **agreement** established and staff recruited
- ✓ **undertaking** project planning and engagement with local councils and industries in the Tweed, Richmond, Clarence, Macleay, Hastings, Manning and Shoalhaven estuaries
- ✓ **undertook** multiagency coastal floodplain management team meeting; commenced engagements and coordination of multiagency workshops

**Floodplain management by addressing knowledge gaps**

- ✓ **commenced** floodplain study including field data collection and consultation with key stakeholders.

Clean coastal catchments

- ✓ **refined** blueberry & greenhouse vegetable fertigation research and application
- ✓ **established** industry engagement
- ✓ **established** monitoring and demonstration sites for blueberry and macadamia industries
- ✓ **established** blueberry fertigation research facility
- ✓ **commenced** community based social research to understand industry motivations for management change.

**Fish friendly workshops**

- ✓ **completed** 39 council on-ground audits and consultation with five councils examining practice and adherence to *Fisheries Management Act* permit conditions for constructions works that impact on aquatic environments



actions

our achievements

- ✓ **developed** Safe Work Method Statement booklet for councils
- ✓ **preparing** for delivery of fish friendly council workshops.

**Oyster reef restoration**

- ✓ **commenced** Port Stephens pilot, positive public engagement events
- ✓ **completed** autumn research sampling
- ✓ **completed** oyster industry survey
- ✓ **developed** spatial mapping tool, now in use
- ✓ **prepared** for a citizen science project.

**Riparian vegetation rehabilitation**

- ✓ **confirmed** 41 riparian sites, **completed** 17
- ✓ **protected** and / or revegetated 158 ha riparian areas
- ✓ **protected** 30 km of foreshore
- ✓ **delivered** 30 media opportunities and three awareness raising events.

**Estuary bank protection works**

- ✓ **completed** bank protection at nine sites
- ✓ **completed** two working bees with more 20 people attending for plantings
- ✓ **completed** 720m rock and log revetment.

**Wetland restoration**

- ✓ **agreement** established with National Parks and Wildlife Service and purchase of priority wetland
- ✓ **engaged** contractor for hydraulic modelling of Tuckean Swamp and Tomago Wetland
- ✓ **completed** wetland hydrological study.

**Reducing erosion from roads & tracks**

- ✓ **identified** 16 sites for on-ground erosion control works
- ✓ **completed** work at eight of the identified sites, and contracts signed for work at the remaining sites.

Statewide actions**Marine litter campaign**

- ✓ **focus** group testing of initial campaign concepts
- ✓ **collaboration** established with NSW Environment Protection Authority, now Department of Planning, Industry and Environment, to develop a marine litter campaign
- ✓ **delivered** 184 data packages to support the development of coastal management programs. The data package includes a series of maps to assess the risks of impacts land use activities of the health of estuaries in NSW

actions

our achievements

- ✓ **created** a tool to support council's assessment of in clauses in Local Environment Plans for managing stormwater, protecting waterways and riparian corridors, and achieving the community environmental values and uses of the marine estate.

Next steps

Expected outcomes Year 2

- ▶ Local Strategic Planning Statements adopted and publicly released by partner councils, demonstrating how the Risk-based Framework is applied to strengthen provisions for waterway health in the NSW Planning System
- ▶ Communication strategy on the state-wide roll out of the Risk-based Framework, developed from the outcomes of workshops attended by over 40 coastal councils, industry associations and state agency staff
- ▶ Step by step guidelines on applying the Risk-based Framework, based on pilot programs and developed by practitioners
- ▶ Guidelines for deriving community environmental values and uses of the marine estate, developed in partnership with coastal councils
- ▶ State-wide review of the NSW Water Quality Objectives, and demonstration to show how objectives are update in 4 pilot areas
- ▶ Exemplar case studies (from pilots) on the application of the Risk-based Framework to i) assess the cost-effectiveness of stormwater management and treatment devices, ii) identify and prioritise management actions in Coastal Management Programs for protecting the Coastal Environment Areas, iii) develop stormwater management strategy that prioritises investment decisions
- ▶ Community awareness of water quality issues and the Risk-based Framework, through social media, online surveys, and targeted intercept survey campaigns
- ▶ Commenced the development of an online one stop shop to disseminate and provide information on using the Risk-based Framework for improving water quality and waterway health in the marine estate. The one stop shop will include interactive maps to support state and local governments provide clarity to their stakeholders on state policies
- ▶ a marine litter working group will be established
- ▶ a marine debris threat and risk assessment will be completed
- ▶ oyster reef survey results will be presented at an oyster conference in August 2019
- ▶ remediation of unsealed roads and track sites will continue, with eight sites identified for work in Year 2
- ▶ riverbank vegetation restoration will continue, with 24 sites identified for work in Year 2
- ▶ a consultant will be engaged to establish best practice bank stabilisation strategies in Tweed and Nambucca LGAs
- ▶ applied research in macadamia orchards will begin
- ▶ construction of Wollongbar Blueberry Research Facility will begin
- ▶ Corindi fertigation system will be installed for clean coastal catchments demo site.

before	after
	
<p>Beauty Point, Wallaga Lake reserve Unsealed road along lake edge, unmanaged vehicle access</p>	<p>Beauty Point, Wallaga Lake Road blocked to vehicle access, other areas sealed, lake edge replanted and coir logs placed to manage short term sediment run-off while vegetation establishes</p>
	
<p>Wapengo Creek Bunn, Construction works looking downstream</p>	<p>Wapengo Creek Bunn, Looking upstream, completed bank works ready for planting</p>



“Anything that assists with improving water quality is a good thing and I’ll be on board with it!”
Camden Haven oyster farmer



"The Strategy has enabled Local Land Services to facilitate immediate benefits to a number of farmers, local communities and coastal environments which otherwise would not have been possible in such a short time frame. Funding for bank protection and roads and tracks projects has been particularly valuable as this work is often costly and difficult to undertake without significant grant support."
 Shannon Brennan, South East Local Land Services

before	after
	
<p>Millingandi Creek (Shand) Bank revetment works using root balls and planting</p>	<p>Millingandi Creek (Shand) Bank revetment works using root balls and planting</p>
	
<p>Emigrant Creek, North Coast</p>	<p>Emigrant Creek North Coast after bank protection works</p>



"The Port Stephens oyster reef restoration project has provided a great partnership opportunity for our businesses. By placing our waste shell in bulk bags for pick up by DPI Fisheries we have turned what used to be a large pile of waste that we had to pay to get rid of into a tidy process that provides a modest profit while also generating a positive environmental outcome"
 Don Bergoyne XL Oysters, Port Stephens



“We have owned our property that borders the Wapengo Creek for over seven years. Until we received a grant from the LLS Marine Estate Program we had been unable to fence off our riparian zone. Stock over the years have eroded the banks and damaged or removed native riparian vegetation. Our first grant has enabled us to fully fence off the Wapengo Creek and make a good start on revegetating our creek banks. This funding program is crucial to encourage our neighbours to also undertake similar works and enable maintenance and advice to enable the initial works to become established.

We have been very pleased with the support and funding provided under the Marine Estate Program to help us better manage our farm and our stretch of the Wapengo Creek. Restoring the creek habitat and its water quality is important for the future productivity and resilience of our small farm but also for downstream businesses like our award winning, local oyster growers. The creek restoration and revegetation works wouldn't have been possible without the funding, advice and ongoing support provided by LLS.

Shannon Brennan our local Land Services Officer has been instrumental in encouraging landholders such as ourselves to fence off our waterways as part of the effort to improve water quality for the Wapengo. Staff and the advice and encouragement they provide to landholders such as ourselves have been critical in enabling the Marine Estates program to achieve so much in such a short time. Maintaining the funding program is important to enable the Marine Estate Strategy address the threats facing our coast and water quality.

This is just the beginning for helping deliver much improved water quality to the Wapengo Creek and Lake. We are already seeing the benefit of the funding in encouraging our neighbours to also fence off the Wapengo Creek from stock. We look forward to working further with the Marine Estates Program to encourage other neighbouring landholders to do their bit to improve local water quality and coastal habitats. Ongoing program support will be essential (especially in these times of drought) to maintain plantings and restoration works as well as continue the work to educate landholders on reducing nutrient loads from farming activities.

In the face of increasing impacts of climate change, the Marine Estates Program will be crucial in helping landholders such as ourselves adapt and put in place management actions that improve and maintain agricultural productivity. By working to improve the Wapengo Creek water quality and habitat we hope to contribute to enabling our local oyster growers, fishers and tourism to also thrive into the future.”

Sarah Williams and Barbara Jones, Riparian Landholders, Wapengo, Bega Valley



Initiative 2 - Delivering healthy coastal habitats with sustainable use and development

Initiative objective

To protect coastal and marine habitats and associated species, and enhance the health of the marine estate by improving the design, quality and ongoing management of foreshore development, use and waterway infrastructure.

Initiative long term outcomes

- Improved design and management of foreshore and coastal land use and development, balancing social and economic benefits of development with enhanced coastal and marine habitats.
- Maintained or improved biodiversity and marine habitats.

Budget Year 1

\$1,711,767

The problem/opportunity

Foreshore development, land use and waterway infrastructure provide important social and economic benefits for NSW. If they are not managed and planned for appropriately, they can detract from these benefits and impact on marine estate habitats and species.

Ultimately, we are aiming for better coordination of management of coastal habitats and species in the marine estate and in alignment with community values. This includes better coordination of investment planning and infrastructure management.

Putting the Strategy into action

actions

our achievements

actions by local government area



Estuary domestic foreshore structure strategies

actions

our achievements

- ✓ **undertook** collaborative workshops with agencies to identify case studies for fish friendly breakwaters maintenance
- ✓ **agreements** established with six NSW councils and State agencies to develop local foreshore structure strategies.

**Estuary bank management strategies**

- ✓ **identified** mapping methodology
- ✓ **established** scope for consultant.

**Marine vegetation management strategies**

- ✓ **completed** State analysis including quantifying and mapping the area of at risk marine vegetation from clearing due to essential infrastructure
- ✓ **completed** Pittwater marine vegetation mapping
- ✓ **completed** the estuary specific focus analysis by mapping and quantifying the changes in mangrove extent (and saltmarsh) from 1987-2017

Research and monitoring of estuarine habitats

- ✓ **completed** Wagonga Inlet and Lake Illawarra mapping
- ✓ **completed** Port Stephens satellite mapping trial.

**Restore fish passage**

- ✓ **identified** and prioritised sites for fish passage restoration
- ✓ **completed** Cookes Weir survey and flora and fauna assessment
- ✓ **completed** 18 additional site inspections
- ✓ **facilitated** coordination and implementation of other fish passage programs.

Statewide actions**Dredging audit**

- ✓ **agreement** established with Crown Lands to assist with auditing of commercial dredging
- ✓ **engagement** and coordination across the Strategy projects including first meeting held with participating agencies.

**Coastal design guidelines review**

- ✓ **agreement** established with Department of Planning, Industry and Environment to assist with coastal design guidelines and change implementation.

Next steps

Expected outcomes Year 2

- ▶ agency meetings will be held in regional areas to gather information about dredging
- ▶ Southern Cross University and DPI Fisheries will be hosting the 2020 Australian Mangrove and Saltmarsh Network Conference in Ballina
- ▶ complete up to eight foreshore structures management strategies
- ▶ complete two bank management strategies
- ▶ complete two marine vegetation management strategies
- ▶ review of environmental factors for removal of Cookes Weir
- ▶ an indicator based approach will be developed to map priority areas to prevent further mangrove degradation and highlight areas for rehabilitation or potential offsetting.
- ▶ parameters for valuable old growth mangrove and heritage trees will be determined
- ▶ research and monitoring of estuarine habitats:
 - Port Stephens mangrove condition trial and Pittwater artificial structure mapping will be completed
 - method for mapping artificial structures using machine learning will be finalised.
- ▶ a consultant will be engaged to establish best practice bank stabilisation strategies in Tweed and Nambucca LGAs.



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Initiative 3 - Planning for climate change

Initiative objective

Understand, adapt and increase resilience, to help mitigate the impacts of climate change on the NSW marine estate.

Initiative long term outcomes

Adaptation planning, strategies and decision-making across the marine estate incorporates the likely future impacts of climate change.

Budget Year 1

\$381,738

The problem/opportunity

The effects of climate change are expected to increase over time. What is not always known is the likelihood and consequence of these effects. As a result, the effects of climate change on the marine estate are often poorly understood and not well planned for. This initiative will fill knowledge gaps to increase resilience to help mitigate the impacts of climate change in the NSW marine estate. Due to funding constraints in Stage 1 the investment in climate change research and monitoring was substantially limited. Stage 2 seeks improved funding to begin and implement all five actions, contribute to filling key knowledge gaps regarding response and resilience to climate change and collaborate with other agencies and institutions focusing on climate change adaption. This will ensure that the likely future effects of climate change are better understood, anticipated and planned for in policy and management.

actions

our achievements

Statewide actions



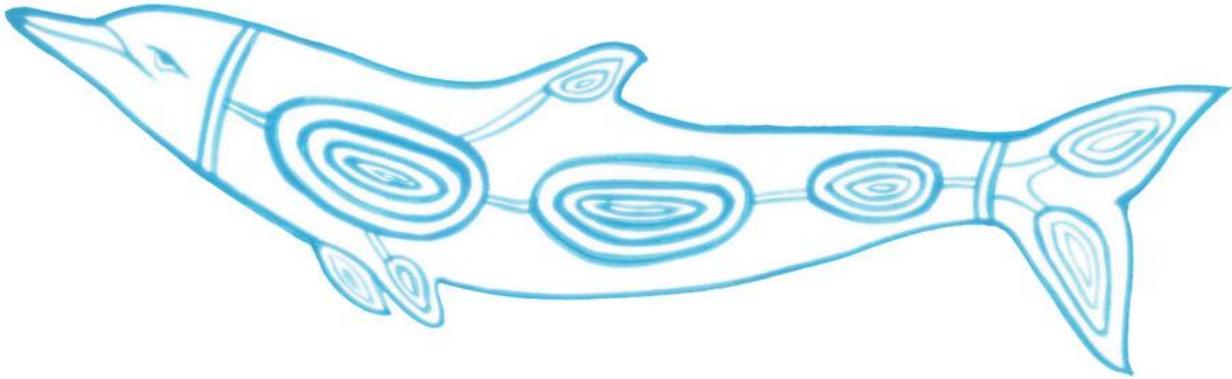
Monitoring reefs at risk from climate change

✓ **completed** baseline subtidal monitoring of rocky reefs throughout NSW

Next steps

Expected outcomes Year 2

- ▶ report on baseline condition of subtidal rocky reefs will be finalised. Data from this report will be used for ongoing monitoring of climate change related impacts on subtidal rocky reef communities
- ▶ commencement of research to fill priority knowledge gaps
- ▶ commence the review of the coastal design guidelines.



Initiative 4 - Protecting the Aboriginal cultural values of the marine estate

Initiative objective	
Work with Aboriginal communities in the management of Sea Country to reduce threats and risks to Aboriginal cultural heritage.	
Initiative long term outcomes	
<ul style="list-style-type: none"> • Improved Aboriginal satisfaction with Sea Country management. • Aboriginal people derive greater economic benefit from the marine estate. • The broader NSW community has a greater appreciation of the significance of Sea Country for Aboriginal people. 	
Budget Year 1	\$765,071

The problem/opportunity

There are high-risk threats that cumulatively affect Aboriginal cultural heritage associated with Sea Country. There are also significant knowledge gaps relating to cultural values. Aboriginal people and their cultural values are not yet appropriately represented or engaged in management of the marine estate.

Putting the Strategy into action

actions	our achievements
actions by local government area	
	<ul style="list-style-type: none"> ✓ increased Aboriginal participation in marine estate management governance and planning ✓ collaborated with South Coast Aboriginal people in the future management of Batemans and Jervis Bay Marine Parks. Marine estate partners are seeking advice from Local Aboriginal Land Councils and other Aboriginal organisations on the most appropriate marine training and on-ground projects that empower communities to participate in Sea Country management

actions

our achievements

- ✓ **delivered** herbicide application vocational training course at Narooma. Eight Aboriginal community members participated and qualified
- ✓ **completed** a Tilba catchment management project by Wagonga Local Aboriginal Land Council rangers - weed spraying with over 2,000 trees planted
- ✓ **delivered** five Aboriginal Vessel training courses with over 100 participants gaining general NSW boat licences from Central and Northern regions
- ✓ **employed** 12 temporary rangers in Southern and Northern regions on seven marine debris and coastal weeds projects
- ✓ **recruited** three identified Aboriginal positions: senior manager, project officer and a liaison officer to support delivery of Sea Country management actions
- ✓ **employed** two temporary rangers in Southern region with a storm water debris monitoring project in Wagonga Inlet
- ✓ **undertook** a traditional bark canoe making project at Ulladulla, Batemans Bay and Nowra high schools with 40 Aboriginal elders and boys attending
- ✓ **delivered** Sea Country education program to over 60 children from Narooma and Tilba public schools
- ✓ **completed** shorebird nest monitoring and protection projects, cultural site protection works and old oyster lease rehabilitation
- ✓ **supported** and facilitated the establishment of Aboriginal owned and operated businesses - commenced a cultural tourism pilot with the South Coast Aboriginal Fishing Rights and Merrimans Local Aboriginal Land Council Aboriginal
- ✓ 31 Aboriginal people in the Narooma and Huskisson areas successfully **graduated** from a commercial deckhand course
- ✓ **development** of the Umbarra cultural marine tourism program is well under way, an approved business plan completed
- ✓ **commenced** a cultural tourism pilot with the South Coast Aboriginal Fishing Rights and Merrimans Local Aboriginal Land Council.
- ✓ **commenced** Aboriginal coxswain sea time and skills training.

Next steps

Expected outcomes Year 2

- ▶ Southern Region:
 - training in Cultural tourism will be delivered
 - Aboriginal marine tourism business and marketing plans will be completed
 - Batemans Bay Local Aboriginal Land Council fish trap restoration project will commence.
- ▶ Northern Region:

Expected outcomes Year 2

- Coffs Harbour Local Aboriginal Land Council saltmarsh rehabilitation will commence
- the Jali Local Aboriginal Land Council will commence weeds and marine debris project.



"We're taking the kids around, showing them the significant cultural values of the Aboriginal people that's occupied this area for roughly over 60,000 years. And so we're telling them stories of the past and we're actually going to also show them the importance of marine life and sustainability of all our species."
Lynn Thomas - Aboriginal Education Officer, Narooma Primary



Shorebird protection work



"No one's going to look after the Country unless you do, so why not get out there, make a job out of it, get employed, create future jobs for future generations and just keep it going."
Weeds and waste program participant



"My Dad was always telling me about the Country and what they used to do when they were kids. It was good to know how he grew up and, knowing that, I brought my kids down here and they can learn about their culture"
Troylene Parsons - Merrimans LALC Sea Rangers



Bank protection work.
Tomaga River, Mogo LALC site



"It is a lot more than knowledge, it establishes friendships, relationships, also builds respect. It's hands on, you know, the way our people did it for thousands of years. It wasn't through books or watching TV. They taught you physically how to do things"

Victor Channel - Deputy Chairperson Ulladulla LALC



vessel training



weeds and waste



Initiative 5 - Reducing impacts on threatened and protected species

Initiative objective

To understand and mitigate threats to threatened and protected species in NSW.

Initiative long term outcomes

Improved or maintained conservation status and health of targeted threatened and protected species in the wild.

Budget Year 1

\$527,661

The problem/opportunity

Climate change and human activities on land and water are a cumulative threat to threatened and protected species of the marine estate.

Putting the Strategy into action

actions	our achievements
actions by local government area	
	Seal interaction plan <ul style="list-style-type: none"> ✓ incorporated a seal interaction plan into the revision of the Marine Wildlife Management Manual ✓ delivered new seal signage for all coastal locations.
Statewide actions	
	Protect and conserve marine wildlife <ul style="list-style-type: none"> ✓ delivered collaborative workshop between Organisation for the Rescue and Research of Cetaceans in Australia (ORRCA) and National Parks and Wildlife (NPWS) to discuss rescue and science and cooperative arrangements

actions

our achievements

- ✓ **training** of over 180 staff and key stakeholders in marine wildlife response and preparedness
- ✓ **commenced** Marine Wildlife Management Manual review
- ✓ **facilitated** workshop with key marine reptile rehabilitation groups to develop draft code of practice for marine reptiles to support the development and consistency of marine wildlife rescue and rehab throughout NSW by licensed rescue groups
- ✓ **developing** new Z card for whale, dolphin, seal and dugongs. Education product will support community engagement.

Improve reporting of interactions with marine wildlife

- ✓ **delivered** new seal signage for all coastal locations
- ✓ **agreement** in place with Australian Registry for Wildlife Health to maximise data from shark net bycatch to improve understanding of threats
- ✓ **agreement** in place with Dolphin Marine Rescue Animal Rescue Trust to support veterinary diagnostics for stranded marine wildlife to improve understanding of threats and causes of mortality and disease
- ✓ **acquired** software necessary for implementation of external portal for marine wildlife incident management
- ✓ **plan developed** for delivery and training to stakeholders.

**Commercial fishing observer program****Ocean Trap and Line fishery to determine interactions with threatened and protected species**

- ✓ **undertook** first interagency meeting to discuss the issue of whale entanglement in commercial fishing gear including identifying opportunities for gear modification and practices to reduce wildlife bycatch

Observer-based survey of Estuary General Trap fisheries to determine the threats to fish assemblages

- ✓ **completed** year-1 sampling involving 202 observed fishing days (≈ 6000 trap lifts monitored for catch composition, 2500 wildlife observation periods)
- ✓ **completed** pilot study to test the efficiency of sonar to quantify the number of derelict pots in a controlled manipulative designed experiment; this information will be used to assess if sonar is viable in the assessment of derelict pots at the estuary wide level.



Next steps

Expected outcomes Year 2

- ▶ an industry workshop will be run to identify potential options to reduce whale interactions with commercial fishing gear
- ▶ implementation of observer-based survey of commercial line fishing in the northern and central regions to quantify the nature and extent of discarding (and threatened species interactions) by fishers in the Ocean Trap and Line Fishery
- ▶ Marine Fauna Advisory Committee will be established
- ▶ trial of LED lights on shark mesh nets (bather protection program) to reduce turtle catch is planned for the next meshing season
- ▶ external access to key stakeholders into marine wildlife incident management platform
- ▶ MOU's with key partners finalised for large whale disentanglement
- ▶ additional veterinary training in marine wildlife rescue and post mortem work run on the central and south coasts
- ▶ cultural protocols established in key locations for managing marine wildlife.



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Initiative 6 - Ensuring sustainable fishing and aquaculture

Initiative objective

To ensure fishing and aquaculture is managed in a way that is consistent with ecologically sustainable use while providing for the health, heritage and social benefits of fishing and seafood consumption.

Initiative long term outcomes

Improved ecological sustainability, economic viability and community wellbeing of fishing and aquaculture in the marine estate.

Budget Year 1

\$675,665

The problem/opportunity

Sustainable fishing and aquaculture bring many benefits for the NSW community, but they also need to be managed to reduce threats to the environmental assets of the marine estate. This Initiative will support significant social and economic benefits for the people of NSW, as well as cultural benefits to Aboriginal people.

Putting the Strategy into action

Actions

our achievements

actions by local government area

Fisheries enhancements



- ✓ **completed** kingfish stocking in priority areas including Botany Bay and Lake Macquarie recreational fishing havens
- ✓ **developed** plan for marine fish stocking in 2019 / 2020.
- ✓ **secured** additional Fish Aggregating Devices to benefit recreational fishing in metropolitan areas

Actions

our achievements

Statewide actions

Seafood industry training for commercial fishers



- ✓ **reviewed** and developed OceanWatch Master Fisherman training materials to align with the National Seafood Training Package
- ✓ **delivered** 6 OceanWatch Master Fisherman training workshops.

Application of Marine Aquaculture Strategy



- ✓ **developed** NSW Marine Waters Sustainable Aquaculture Strategy
- ✓ **completed** Aquaculture Industry Development Plan.

Harvest strategies (fishing)



- ✓ **delivered** a workshop to progress development of harvest strategy policy within NSW. The workshop was facilitated by Dr Cathy Dichmont, an internationally recognised expert in harvest strategy development and evaluation. The workshop report will be a valuable resource for the development of harvest strategy policy and guidelines for NSW that integrates commercial, recreational and cultural fishing sectors
- ✓ **completed** and released Status of Australian fish stocks.

Promoting the community benefits of fishing



- ✓ **launched** a new grants program to put more local seafood on NSW plates and boost the value of the NSW seafood industry up to \$1 million dollars. The Supporting Seafood Future grants program is designed to build marketing and promotion capability within seafood businesses through grants up to the value of \$200,000
- ✓ **promoted** the value of NSW wild-caught seafood through the Professional Fishermen's Association (PFA) who received funding under the Supporting Seafood Futures program.

Reducing marine litter

- ✓ **completed** new breakaway float education campaign to reduce marine litter sources from recreational anglers.

Next steps

Expected outcomes Year 2

- ▶ further stocking of key marine fish species
- ▶ additional fish aggregating devices (FAD) program to be deployed in the Sydney region
- ▶ review incoming marine aquaculture applications against NSW Marine Waters Sustainable Aquaculture Strategy
- ▶ new artificial reefs will be deployed off the coast of Wollongong and Newcastle
- ▶ consultation with key stakeholders on draft harvest strategy will commence.

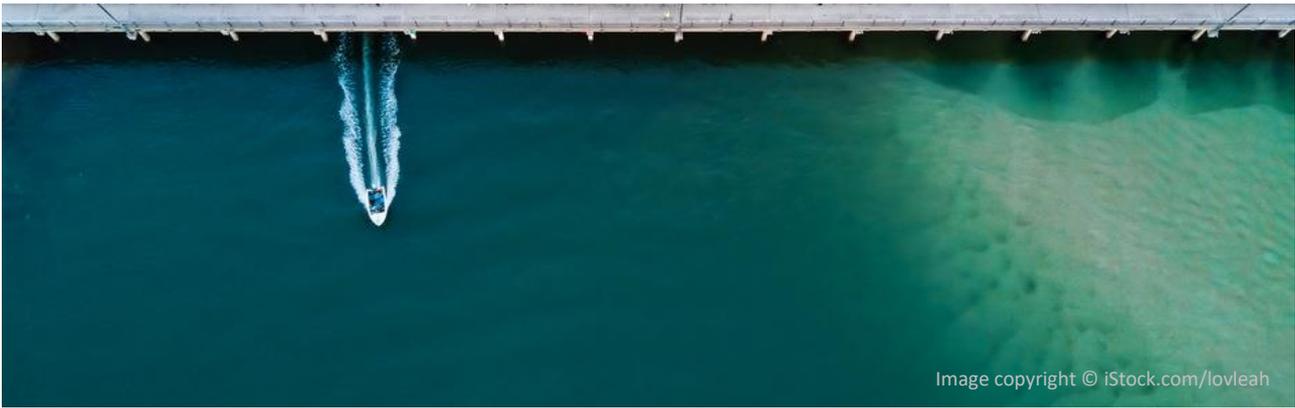


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Initiative 7 - Enabling safe and sustainable boating

Initiative objective	
To balance protection of coastal and marine habitat and species with ongoing access and safe and sustainable boating.	
Initiative long term outcomes	
Boating provides increased social and economic benefits for NSW communities while supporting sustainable social, economic, cultural and environmental benefits of the marine estate.	
Budget Year 1	FUNDED BY TRANSPORT FOR NSW

The problem/opportunity

Boating activity will increase in the future. We need to accommodate this increase while managing the social, economic and environmental benefits of the marine estate.

Putting the Strategy into action

actions	our achievements
	actions by local government area
	<p>Safe and sustainable boating</p> <ul style="list-style-type: none"> ✓ delivery of the Boating Now Program for maritime infrastructure and facilities needed across NSW for safe, accessible and enjoyable recreational and commercial boating ✓ delivery of the Maritime Infrastructure Plan 2019-2024 ✓ audit of navigation aids ✓ mapping and identification of navigation aids ✓ planning for expansion of the maritime compliance camera program



actions

our achievements

**Boat based contamination compliance and education**

- ✓ **undertook** proactive enforcement inspections of domestic commercial vessels with more than 900 inspections of compliance with safety and environmental standards
- ✓ **delivery** of education through the Boating Education Officer Program.

**Improved mooring management****Reducing threats to seagrass**

- ✓ **delivery** of the Mooring Reform Program under way
- ✓ **review** of seagrass information in boat driver licence handbook

Mooring demand management

- ✓ **completed** major audit of current moorings to improve compliance with licence conditions with a significant increase in enforcement with positive community feedback and improved customer outcomes.

Next steps

Expected outcomes Year 2

- ▶ continue and expand delivery of boating infrastructure projects as part of Boating Now Program Round Three
- ▶ undertake trials of environmentally friendly moorings at a number of locations
- ▶ complete the statutory review of the Marine Pollution Act 2012
- ▶ confirm NSW Maritime as the Appropriate Regulatory Authority (ARA) across all NSW navigable waters
- ▶ continue to educate the boating public about boating related environmental issues, including protection of seagrass.



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Initiative 8 - Enhancing social, cultural and economic benefits

Initiative objective

To improve the social, cultural and economic benefits that the NSW community derives from the marine estate by responding to priority threats.

Initiative long term outcomes

- Improved social, cultural and economic benefits of the marine estate that contribute to the wellbeing of the NSW stakeholders and community.
- Increases stakeholder and community adoption of safe and sustainable use of the marine estate.

Budget Year 1

\$1,170,671

The problem/opportunity

There is a need to continue to build our understanding of the social, cultural and economic use and benefits, including intrinsic value, of the marine estate to better inform decision-making. There is also a need for greater awareness and understanding among the community of the benefits of the marine estate and how their actions may affect these benefits.

Putting the Strategy into action

actions

our achievements

actions by local government area

Marine education strategy

Education to increase stakeholder and community awareness of the marine estate values and management



- ✓ **development** of strategy commenced with consultants engaged to assist and advisory group formed to develop education strategy
- ✓ **delivered** education strategy workshops with agency representatives

actions

our achievements

- ✓ **developed** key partnerships across Authority agencies and stakeholders.

Marine Integrated Monitoring Program (MIMP)

- ✓ **commenced** development of the Marine Integrated Monitoring Program monitoring and evaluation framework with consultants, including developing the approach for assessing and reporting on the effectiveness of the Strategy and individual Initiatives (program logics, monitoring, evaluation and reporting)
- ✓ **delivered** and collaborated with MEMA agencies and MEEKP, four workshops held to develop the framework
- ✓ **delivered** two community wellbeing workshops to develop a community wellbeing framework to strategically collect social, cultural and economic information for the MIMP.

**Marine estate activity mapping**

- ✓ **commissioned** consultant to work with key stakeholders to identify business requirements for a new online mapping system to support human activity data
- ✓ **completed** initial shark aerial survey data analysis trial
- ✓ **Initiated** development of Surf Lifesaving NSW beach data analysis.



Next steps

Expected outcomes Year 2

- ▶ the Marine Integrated Monitoring Program: monitoring and evaluation framework will be publically released
- ▶ a summary of the MIMP framework will be publicly released
- ▶ a community wellbeing framework will be finalised
- ▶ a summary of the community wellbeing framework will be publicly released
- ▶ implementation of the community wellbeing framework through a state-wide community survey
- ▶ the Marine Estate Education Strategy will be finalised
- ▶ complete data analysis of shark surveillance and Surf Lifesaving NSW data
- ▶ investigate other potential online data sources i.e. Nearmap, Geosocial
- ▶ develop a database of existing MEMA agency data to incorporate into the activity mapping portal
- ▶ finalise Activity Mapping system requirements analysis in readiness for system build.



Initiative 9 - Delivering effective governance

Initiative objective

To improve governance arrangements across the marine estate to support coordinated, transparent, inclusive and effective decision-making.

Initiative long term outcomes

- Improved coordination, transparency, consistency and inclusiveness of managing the marine estate.
- Improved efficiency and effectiveness in managing the marine estate.

Budget Year 1

\$542,489

The problem/opportunity

Complex governance arrangements and overlapping jurisdictions can lead to lack clarity of roles and responsibilities, inconsistencies, duplication and inappropriate regulation. Governance arrangements that are simpler and easier to understand will better support effective management of the marine estate and deliver social, cultural, economic and environmental benefits.

Putting the Strategy into action

actions	our achievements
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actions by local government area



Governance framework pilot

- ✓ **engaged** consultant to deliver a report on workshop findings to support the development of a catchment-scale governance pilot project for the Richmond River catchment
- ✓ **delivered** four governance framework stakeholder workshops and conducted stakeholder interviews
- ✓ **received** consultant’s recommendations report for governance of the Richmond for consideration with key stakeholders and partners.

actions

our achievements

Statewide actions

The Strategy Governance and project management framework



- ✓ **implemented** improved reporting, planning and record keeping procedures across Authority agencies
- ✓ **provided** individual support to project staff with reporting, finances and raising standards for completion of project management reporting
- ✓ **delivered** 5 statewide project management training workshops for over 40 Strategy staff.

Next steps

Expected outcomes Year 2

- ▶ final proposal for Richmond Catchment governance framework will be submitted to the Marine Estate Management Authority
- ▶ governance project management documents will be finalised.



More than 40 stakeholders from across the catchment worked together to document the values of the catchment and identify the drivers of change.

Conclusion

The foundations for successful Strategy implementation were built in the first year. This included the development of a project management and governance framework, recruitment of staff, creating partnerships and relationships with stakeholders and commencing the development of a Marine Integrated Monitoring Program. In addition, 41 of the 53 actions in the Strategy commenced. Now that this initial groundwork has been laid, the Strategy is set to deliver tangible outcomes across the NSW marine estate in the second year, adding to the work that has been achieved so far. The overall budget for the second year of the Strategy is \$26.8 million which will be used across the initiatives to continue addressing the threats to the NSW marine estate.

Appendix A – Communications and engagement

Communications and engagement with a wide variety of stakeholders and the community about the Strategy was undertaken on during the year. Key communication and engagement activities are listed below.

Table 1. Communications and engagement with stakeholders during 2018/19.

MONTH	STAKEHOLDER	ACTIVITY	INITIATIVE	COMMUNICATIONS AND ENGAGEMENT
August 2018	NSW Community	Media Release and various printed, broadcast, online and social media	All	<p>Official media release NSW Government Marine Estate Management Strategy announcement This was also announced on the Premier's website, OEH website and DPI Facebook.</p> <p>Examples of announcement on other media:</p> <ul style="list-style-type: none"> • ABC north coast social media • Newscast newsletter • Northern Star
	Industry – Agriculture	Magazine	1	<p>Article printed in Blueberry Australia - Industry Magazine.</p> <p>The article introduced the NSW blueberry industry to the Strategy Clean Coastal Catchments projects</p>
	Recreational Fishers and NSW Community	Social Media	6	DPI Fisheries Facebook: Kingfish stocked in Lake Macquarie
	Recreational Fishers	Meeting	6	Recreational Fishing NSW Advisory Council discussed the announcement of the Strategy
October 2018	Recreational Fishers	Website	6	DPI Fisheries Website: Secure your floats to reduce marine litter
	Conservation Volunteers	Workshop	5	Australian seabird rescue delivered a workshop on sea turtles in Ballina
	Aboriginal Communities	Meeting	4	Information shared with Aboriginal Fishing Advisory Council about the Strategy, particularly initiative 4
November 2018	Recreational Fishers	Meeting	6	Recreational Fishing NSW Advisory Council updated on projects that fall within the Strategy initiative 6 including kingfish stocking, breakaway floats and the Strategy / EPA marine litter campaign
	NSW Community	Meeting	1	Presentation to the Coffs Harbour Coastal Estuary Management Advisory Committee to introduce them to the Strategy Clean Coastal Catchments projects. These projects aim to improve water quality in estuaries
	Industry - Agriculture	Workshop	1	Fertiliser Stewardship Group Workshop held in Coffs Harbour

MONTH	STAKEHOLDER	ACTIVITY	INITIATIVE	COMMUNICATIONS AND ENGAGEMENT
	Industry - Commercial Fishing	▶ Letter	5	Letter to relevant commercial fishing business owners to inform them about the upcoming observer-based survey of NSW estuarine trap fisheries
	Coastal Councils and NSW Community	▶ Interviews	9	Representatives from the following organisations were interviewed: Ballina Shire Council, Lismore City Council, Kyogle Shire Council, Richmond Valley Council, Rous County Council, Byron Shire Council and North Coast Local Land Services. The purpose of the interviews was to ascertain the specific values and needs for a governance framework for the Richmond River Catchment.
	Coastal Councils and NSW Community	▶ Workshop	9	A stakeholder workshop was held in Casino to discuss the vision and principles of governance in the Richmond River Catchment.
	Coastal Councils and NSW Community	▶ Workshop	9	A stakeholder workshop was held in Lismore to discuss governance options for the Richmond River Catchment.
December 2018	Coastal Councils and NSW Community	▶ Workshop	9	A stakeholder workshop was held in Ballina to discuss governance options for the Richmond River Catchment
	Industry - Agriculture	▶ Newsletter	1	An Article was published in Australian Macadamia Society news bulletin (summer 2018 Vol 46, 4). NSW Government Project to drive BMP in Macadamias. The purpose of this article was to introduce the Strategy Clean Coastal Catchments project to the NSW macadamia industry
	Industry - Agriculture	▶ Newsletter	1	Article in Fertcare Newsletter: Fertiliser Stewardship Forum kicks off in NSW north coast
	Recreational Fishers	▶ Magazine	6	Article published in fishing world magazine: Kingfish stocked in Botany Bay
January 2019	Coastal Councils	▶ Letter	All	Letter sent to NSW coastal councils. NSW Marine Estate Management Strategy (2018-2028) – an update on implementation and opportunities for local government involvement in 2019
	Aboriginal Community	▶ Newsletter	4	Article about Sea Ranger shorebird nesting program in issue 35 of the Friends of the Hooded Plover Newsletter
	NSW Community	▶ Media Release	1	Local Land Services: Support on offer for sensitive South East waterways
	Industry - Oyster Aquaculture	▶ Letter	1	An invitation to participate in oyster reef survey sent to oyster farmers

MONTH	STAKEHOLDER	ACTIVITY	INITIATIVE	COMMUNICATIONS AND ENGAGEMENT
	Industry – Oyster Aquaculture	 Media release	1	DPI: Survey kick-starts DPI's Oyster Reef Restoration Project
February 2019	NSW Community and key stakeholders	 NSW Marine Estate Newsletter – the Special Edition	1	Five articles: <ul style="list-style-type: none"> Clean coastal catchments project Restoring oyster reefs in NSW estuaries Supporting seafood futures Developing a NSW marine debris litter campaign Risk-based framework for waterway health outcomes
	NSW Community	 Media release	1	Local Land Services: Collaboration to lead long-term Richmond River recovery
	Industry – Macadamia Agriculture	 Magazine	1	Australian Tree Crops macadamia feature. Article to introduce the Strategy Clean Coastal Catchments Fertiliser Stewardship Group
	Industry – Macadamia Agriculture	 Meeting	1	Presentation given to Coffs Harbour Regional Landcare Blueberry Focus group to introduce the Strategy Clean Coastal Catchments projects
	NSW Community	 Radio	1	ABC South East segment on World Wetlands Day
	Recreational Fishers	 Meeting	6	Recreational Fishing NSW Advisory Council updated on projects that fall within the Strategy initiative 6 including the Status of Australian Fish Stocks report and breakaway floats
	Industry - Agriculture	 Meeting	1	Clean Coastal Catchments Industry Steering Committee meeting held in Ballina
	Industry - Agriculture	 Workshop	1	Fertiliser Stewardship Group Workshop held in Wollongbar
	Industry - Agriculture	 Meeting	1	Applied blueberry research facility consultation meeting held with OzGroup in Coffs Harbour. Purpose was to consult with corporate growers, tech experts and Local Land Services on the plan for Wollongbar facility
	Industry	 Meeting	2	Presentation delivered at the Sydney Olympic Park Wetland Education and Training workshop regarding mangrove management.
	Industry – Charter Fishing	 Meeting	6 and 5	Charter Fishing NSW Working Group meeting held. Working group updated on projects that fall within the Strategy initiative 6 including the Status of Australian Fish Stocks report and Fish Aggregation Devices
	March 2019	Coastal Councils	 Meeting	All
Aboriginal Communities		 Meeting	4	Coastal Weeds meeting Far South Coast held

MONTH	STAKEHOLDER	ACTIVITY	INITIATIVE	COMMUNICATIONS AND ENGAGEMENT
	Coastal Councils	▶ Meeting	All	Clarence Valley Council meeting. Strategy agencies provided update on the Strategy initiatives and progress
	Coastal Councils	▶ Letters	All	Letters sent to Byron Shire Council, Nambucca Shire Council, Bellingen Shire Council, Port Macquarie Hastings Council, Kempsey Shire Council, Clarence Valley Council and Ballina Shire council to provide an update on the Strategy
	Coastal Councils	▶ Meeting	2	Meeting held with Ballina Council regarding the Richmond Marine Vegetation Strategy
	Industry - Agriculture	▶ Meeting	1	Inaugural committee meeting with key blueberry, macadamia and greenhouse veg peak representatives held in Ballina
April 2019	Recreational Fishers	▶ Magazine	6	Article published in Fishing World magazine on break away floats
	Aboriginal Communities	▶ Workshop	4	The Ulladulla Local Aboriginal Land Council hosted traditional bark making canoe workshop and men's gathering
May 2019	Recreational Fishers	▶ Magazine	6	Article published in Fishing World Magazine: NSW FADS retrieval begins
	Recreational Fishers	▶ Social Media	6	DPI Fisheries social media post regarding break away floats and marine litter
	Industry - Agriculture	▶ Meeting	1	Clean Coastal Catchments Industry Steering Committee meeting held in Ballina
	Coastal Councils	▶ Meeting	All	Meeting with coastal councils. An overview of the Strategy was given, including the Implementation Plan and how the Strategy links with Coastal Management Plans Council members from the following LGAs in attendance: Cessnock, Dungog, Lake Macquarie, Maitland, MidCoast, Muswellbrook, Newcastle, Port Stephens, Singleton, Upper Hunter
	Aboriginal Communities	▶ Meeting	4	A progress report on the Strategy was given at the Aboriginal Fishing Advisory Council meeting
	NSW Community	▶ Media Release and Newspaper	1	\$500,000 available to rehabilitate priority coastal catchments South East LLS Merimbula News Weekly Eden Magnet
	NSW Community	▶ Working Group	8	Activity mapping stakeholder working group meeting held
	NSW Community	▶ Radio	1	Radio segments discussing riparian rehabilitation: ABC South East 17 May ABC Illawarra 23 May

MONTH	STAKEHOLDER	ACTIVITY	INITIATIVE	COMMUNICATIONS AND ENGAGEMENT
	Industry - Agriculture	▶ Workshop	1	CBSM consult workshop with OzGroup in Coffs Harbour. Purpose was to consult corporate growers, tech experts and Local Land Services on key behaviours to focus on
	NSW Community	▶ Media Release	1	Local Land Services: Partnership to protect the Richmond River from sediment runoff
	NSW Community	▶ Newspaper	1	South East Circular edition 46. Articles relating to the Strategy were published: \$500,000 available to rehabilitate priority coastal catchments and learning about the Tilba Tilba Lake catchment
	Coastal Councils	▶ Interviews	All	41 council representatives from the 10 councils were interviewed to improve our understanding of how diffuse source water pollution is managed at the local government level. Representatives from the following local councils participated: Ballina shire Council, Blacktown City Council, Canterbury-Bankstown City Council, Coffs Harbour City Council, Eurobodalla City Council, Fairfield City Council, Hornsby City Council, Orange City Council, Parramatta City Council and Penrith City Council.
June 2019	NSW Community	▶ Newsletter	1	South East Circular edition 47. Grants for coastal riparian rehabilitation advertised.
	Coastal Councils and NSW Community	▶ Workshop	9	A stakeholder workshop was held in Casino to discuss governance options for the Richmond River catchment
	NSW Community	▶ Radio	1	Radio segments about North Coast Local Land Services projects which aim to improve marine water quality. ABC North Coast NSW 6/21/2019 ABC North Coast ABC North Coast NSW 6/21/2019 6:34:01 AM 100.9 Triple Z FM 900 2LM 6/20/2019
	NSW Community	▶ Newspaper	1	Article published in Northern Star: New project to improve river health. Local Land Services
	NSW Community	▶ Media Release	1	On land actions to improve water quality in our oceans
	NSW Community	▶ Community Information Session	4	Tilba Lake Community Information Session held with Strategy agencies Narooma News Farm Table

MONTH	STAKEHOLDER	ACTIVITY	INITIATIVE	COMMUNICATIONS AND ENGAGEMENT
	NSW Community	▶ Newspaper and Community Event	4	Promotion for Tilba Lake community event Narooma News Bega District News Beagle Weekly
	NSW Community	▶ Newspaper	4	Tilba Lake follow-up after community event. Sea Country cultural activities delivered on south coast Narooma News Batemans Bay Post Bega District News
	Coastal Councils	▶ Meeting	All	Strategy agencies updated Kiama Council about progress and links with Coastal Management Plans
	Aboriginal Communities	▶ Meeting	4	Coastal Weeds meeting Far South Coast held
	Marine Parks	▶ Meeting	All	Local Lands Services discussed the Strategy projects with the Batemans Marine Park Advisory Committee
	Recreational Fishers and Industry – Oyster Aquaculture	▶ Community Participation	1	Two half day working bees planting trees at Bunn and Shand properties with Local Land Services, DPI, local oyster farmers and recreational fishers. Local Land Services Strategy project funded by Recreational Fish Habitat Grants
	Industry – Macadamia Agriculture	▶ Media Release	1	EOI for Macadamia Growers to benefit from the Clean Coastal Catchments project
	Coastal Councils	▶ Presentation	All	Parramatta: Strategy presentation to Councils in Greater Sydney on strengthening provisions for water quality and waterway health in local planning instruments at the 'Integrated Planning for Better Places and Environmental Outcomes Event'
	Coastal Councils	▶ Presentation	All	Barangaroo: Strategy presentation to Councils in Greater Sydney on strengthening provisions for water quality and waterway health in local planning instruments at the 'Integrated Planning for Better Places and Environmental Outcomes Event'
	Aboriginal Communities	▶ Media Release	1	Program to improve condition of Tilba Tilba Lake underway
	Aboriginal Communities	▶ Media Release	4	Sea Country cultural activities delivered on south coast