

National Waterways Report Card Network

Discussion Series: Stewardship

Version 3, December 2016

Purpose of document:

- Collate high level information and links on Stewardship reporting methods and frameworks across the various Report Card producing organisations in Eastern Australia.
- Enable Report Card practitioners to know who to contact if they want to commence or improve their Stewardship Report Card approaches and learn from others, or for those who want to explore joint projects.
- Assist the Report Card Network to move towards greater commonality in the use and purpose of Stewardship indicators – this document could be used as a starting point for a deeper discussion about this at the 2017 network workshop.

Background:

- A compilation of the different uses of and approaches to Stewardship was assembled by members of the National Waterways Report Card Network and discussed at the November 2016 meeting. This document was then amended and expanded following the November meeting, so it could be more useful to the Network and potentially used as a reference document for the 2017 workshop.
- At the November 2016 meeting, many members highlighted the growing importance of Stewardship indicators in Report Cards and were very supportive of Stewardship being included in Report Cards. This is because Stewardship indicators enable Report Cards to:
 - capture many of the positive initiatives underway, demonstrating a ‘return on investment’ sooner than waiting for demonstration of environmental improvement
 - provide for ‘lead’ rather than ‘lag’ indicators
 - can reflect community support and capacity to change
 - provide a bridge from scientific assessment to community engagement and political support
 - more readily capture the interest of senior managers and Ministers in the Report Card’s results
- A diversity of different approaches, uses and justifications was identified in the initial background document and discussion.
- One important gap identified was a consistent and clear rationale for the use and design of Stewardship indicators in Report Cards.
- Another key challenge noted was that the use of Stewardship indicators is still in its infancy relative to the use of environmental indicators in Report Cards and requires a new set of skills and expertise in the social sciences.

Rationale for inclusion of stewardship in Report Cards:

Some of the rationales for including Stewardship in report cards identified from the background exercise include:

GBR Report Card: ‘to assess management effectiveness’

FPRH: ‘responsible planning and actions taken by individuals or organisations to minimise the impacts on our waterways’

GHHP: ‘Responsible planning and management actions’

Draft Port Phillip Bay Environmental Management Plan: ‘a commitment among government, industry and the community to conserve and enhance the value of environmental assets within the Bay’. (The Plan’s reporting will focus on two aspects of this -

Themes:

Several different themes can be identified from the approaches and discussions to date:

- A. Planning
 - The existence and quality of planning and regulations
 - Can have both Government and Private (industry) dimensions
- B. Compliance
 - The level of compliance among government/industry/community with planning and regulation
- C. Adoption and extension
 - Additional initiatives of industry and community to protect
 - Extent to which industry/community/government embraces initiatives or adopts voluntary ‘best practices’
- D. Commitment, capacity and collaboration
 - Extent to which industry/community/government is prepared to commit
 - Level of participation in initiatives
 - Extent of volunteering
 - Level of capacity among industry/community to assist in implementation of management actions, or extent to which they feel ‘empowered’ to take action
 - Level of partnerships, collaboration and coordination among and between government, industry and community sectors
- E. Understanding, empathy and support
 - Level of appreciation and understanding of the value (social/cultural, economic, ecological) of environmental assets among government/industry/community sectors

- Level of appreciation/understanding/awareness of threats to the environmental assets and how they can assist in addressing (or their required role)
- Level of 'connection' that community feel to the environmental asset
- Proportion of community willing to change or 'inspired' to take action
- Support by industry/community for the management plan/programs

It was noted that:

- Some of the more 'support-focused' themes (e.g. Commitment and Empathy) have some overlap with Social measures
- Some themes are easier to quantify than others (e.g. Compliance)
- Some themes may be poor proxies for the underlying concepts (e.g. Compliance without consideration of consequences may not be useful to compare sectors)
- The data for some themes may be difficult to collect (e.g. it is not always easy to collect information on Planning or Adoption from industry)
- Measuring voluntary adoption of 'best practices' or levels of compliance are generally only 'lag' indicators, whilst others indicators in the themes of Commitment, Capacity and Collaboration or Understanding, Empathy and Support can provide to be better 'lead' indicators.

Overview of organisational Stewardship reporting within the Network:

To be updated or new information provided as each organisational contact sees fit for their organisation or department.

Please add your organisation and details to the list below if it is not already included. Thanks

GREAT BARRIER REEF REPORT CARD PARTNERSHIPS IN QLD

Stewardship in Agriculture - The GBR Report Card data on agricultural stewardship is used in the Wet Tropics and Mackay Whitsunday Report Cards. It is reported as the portion of the area of land for each sector under current best management practice (sugarcane, grazing, horticulture and grains).

Stewardship in other sectors (non-agricultural) - Eco Logical consultants have developed qualitative frameworks to assess management effectiveness of ports, heavy industry, aquaculture, tourism, fishing (recreational and commercial) and urban environments for use in Gladstone Harbour, Mackay Whitsunday and Wet Tropics report cards where relevant. State of the Environment Report management effectiveness framework is used as a basis for the stewardship frameworks.

Refer to Appendix 1 & 2 for GBR Report Card Partnerships summary table and written content.

FITZROY PARTNERSHIP for RIVER HEALTH (QLD)

The following information is taken from the [FPRH website](#) and the [Stewardship Review](#) document by Eberhard Consulting.

Definition: Stewardship is the responsible planning and actions taken by individuals or organisations to minimise the impacts on our waterways.

Why?

- Stewardship activities are important to protect and restore the ecological health of Fitzroy Basin's rivers, wetlands, estuaries, coasts and marine environments.
- Through stewardship reporting, the report card seeks to inform the public, policy makers and resource managers of the current standards of resource management and implications for waterway health.

Reporting frequency & format:

Recommendations from Stewardship Review document:

- A case study approach to reporting stewardship in the short term (the current practice).
- Longer term - the development of a framework for the reporting of industry performance against tiered performance standards is recommended. This would be consistent with the ABCD management practices framework developed for assessing the stewardship of agricultural industries in Great Barrier Reef catchments (to be developed).

Objectives of stewardship reporting as part of the Fitzroy Partnership report card are:

1. To report aggregated data on the adoption of practices by resource managers;
2. To use, develop and apply robust metrics to communicate the relative benefits of different practices; and
3. To showcase significant stewardship initiatives.

Stewardship actions to reduce impacts, protect or restore waterways include:

- Practices adopted by individual resource managers e.g. zero till cropping or fencing riparian zones
- Industry or sector-based initiatives e.g. grains and grazing best management practice
- Government initiatives e.g. Reef Rescue programs, regulation of mine site discharges
- Community engagement and educational activities e.g. waterway monitoring and restoration of riparian zones.

Case Study projects underway:

- [Rockhampton's sewerage upgrades](#)
- [Grains industry Best Management Practice \(BMP\) Program](#)
- [Fish ladder on the Fitzroy Barrage](#)
- [Anglo American's water management success](#)
- [BMA's contribution and commitment to GBR Foundation's eReefs project](#)

- [Glencore's innovative water management](#)
- [Graziers reduce run-off with Grazing BMP](#)

GLADSTONE HEALTHY HARBOUR PARTNERSHIP (QLD)

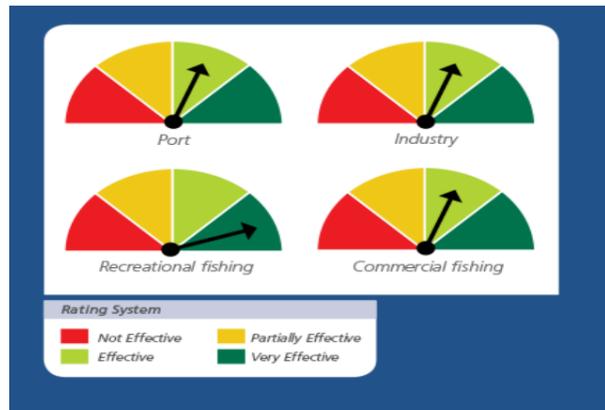
The following information is taken from the [GHHP website](#) and the [Stewardship Reporting](#) document by Eco Logical Australia and Adaptive Strategies.

Definition: Defined by GHHP as 'Responsible planning and management actions' and is intended for this purpose to capture information on management efforts by industries and port operators to maintain or improve Gladstone Harbour health.

Why? The stewardship reporting framework is designed to describe and evaluate environmental management efforts within the Gladstone Harbour area.

Reporting frequency and format:

Yearly using a speedo dial rating system and a 'tiered' scoring system. A report is produced each year by external consultants.



Results for 2014-15 reporting period:

- Port stewardship – Effective
- Heavy industry stewardship – Effective
- Commercial fishing stewardship – Effective
- Recreational fishing – Very effective (data for the 2014 calendar year)

Note that urban stewardship framework was not developed prior to the release of the 2015 report card but urban will be reported in the 2016 report card.

2015 Stewardship Report , Review and key findings:

Recommendations (page 30) - 9 Recommendations are provided in the [Stewardship Report](#) to refine the current port, industry and fishing frameworks that will be considered as part of a bi-annual review process.

Direct extracts from the 2015 Stewardship report – link provided above:

Port and industry - "The range of data currently available to evaluate stewardship of port and industry (heavy industry and fishing) is limited. This project has relied on self-reporting from port and heavy industry and some compliance data from state government agencies."

Reporting framework – "The frameworks relate to environmental issues only (while GHHP reports across environment, economic, social and cultural indicators). Also, the focus for stewardship is around management actions, the level of effort and local, activity-related outcomes, rather than the overall health of and environmental outcomes for Gladstone Harbour."

Stewardship and harbour health - "Harbour health is influenced by stewardship (environmental management activities) of port and industry, but these are not the only drivers. Therefore, there is no direct linear relationship between 'good stewardship' and good ecosystem health, although good stewardship is an important component of achieving environmental outcomes."

Reliance on compliance regulatory framework - "The stewardship frameworks developed for this project have relied heavily (but not entirely) on compliance with the existing regulatory framework, with effective management / stewardship equating to companies fulfilling their regulatory requirements (as set out in existing legislation and applied by government agencies). The underlying assumption of this, is that the legislation and regulatory processes themselves are adequate to provide good environmental outcomes i.e. that the regulatory framework is 'effective'."

Self reporting – majority of data used was self-reported by companies. This introduces a potential bias in the results. "A number of mechanisms were put in place to reduce this risk, and analysis of the results in addition to consultation with companies suggests the responses provided were generally objective."

HEALTHY RIVERS TO REEF – MACKAY WHITSUNDAYS (QLD)

The following information has been taken from the [Program Design information](#) available on the [Healthy Rivers to Reef website](#). The pilot Report Card for 2014 was released in October 2015. Resources were pooled between GHHP and Healthy Rivers to Reef and the same consultants were used to review and recommend stewardship practices.

Definition: "Stewardship reporting can be used to demonstrate how on-ground activities impact water quality."

Why? The stewardship information will aid the environmental report card objective to report on the pressures acting upon the water quality and ecosystem health in the region's waterways.

Reporting frequency and format:

Annual reporting. The Pilot Report Card on Stewardship was released earlier in 2016; the report contains results and methodologies.

- **Agricultural stewardship** reported in the Report card, "in terms of the amount of each sector operating under each management practice level."
Example below of Sugarcane management practices results and horticulture results graphed (Taken from Stewardship Report Card):

Table 9. Results for sugarcane management practices within the Mackay-Whitsunday NRM region for the 2013-14 reporting year.

Management Area	2013/14 best practice
Sediment	41%
Nutrients	20 %
Pesticides	37%

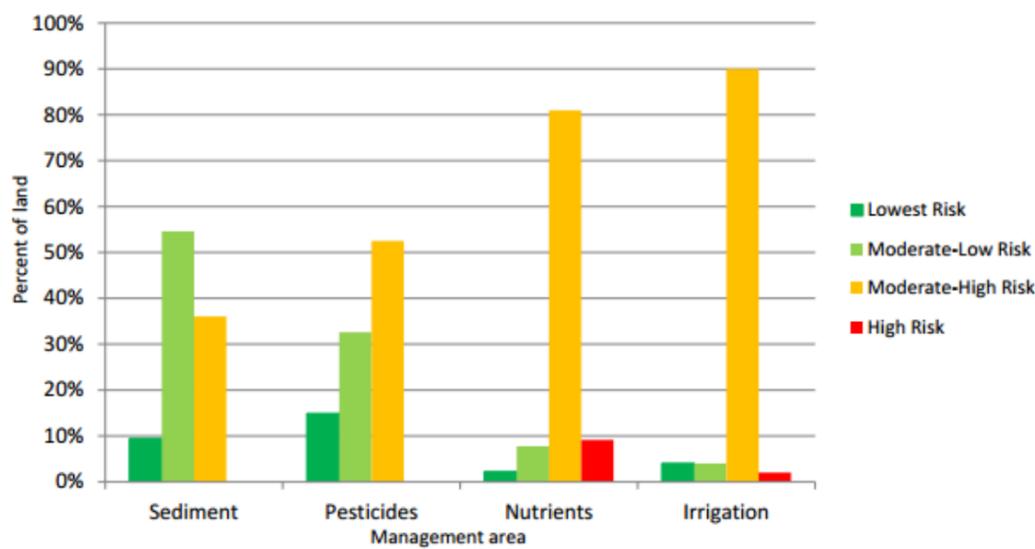


Figure 3. Results for horticulture management practices within the Don Basin for the 2013-14 reporting year.

- **Other industries stewardship** - annually using a speedometer style display rating system as per Gladstone Harbour

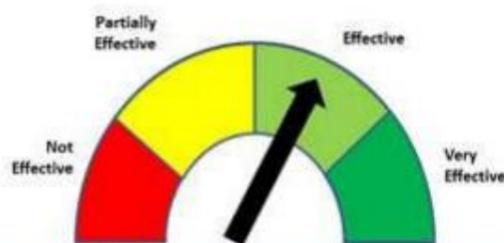


Figure 2. Example of stewardship displays for ports, tourism, industry, and aquaculture sectors.

Stewardship Reports, Reviews & key findings:

Refer to the report for results, findings and recommendations at <http://healthyriverstoreef.org.au/wp-content/uploads/2016/05/Stewardship-Scoring-Methods-and-Results-Pilot-Report-Card.pdf>

WET TROPICS (QLD)

Definition:

Why?

Reporting frequency and format:

Stewardship Reports, Reviews & key findings:

SEQ HEALTHY WATERWAYS (QLD)

Definition:

Why?

Reporting frequency and format:

Stewardship Reports, Reviews & key findings:

MELBOURNE WATER (VICTORIA)

PORT PHILLIP BAY ENVIRONMENTAL MANAGEMENT PLAN

The Victorian Government is about to release the draft Port Phillip Bay Environmental Management Plan for comment. The Plan, which is being prepared by Melbourne Water for the Department of Environment, Land, Water and Planning (DELWP) establishes a framework to maintain the health and resilience of the Bay over the next 10 years. The Plan will deliver on three goals: improved stewardship, water quality, and marine biodiversity; and is designed to manage the challenges of population growth, urbanisation and climate change.

Goal 1 – Stewardship of the Bay is fostered across community, industry and government

Definition:

In the draft Plan, stewardship is defined as a commitment to conserve and enhance the value of environmental assets within the Bay, such as marine plants and animals and ecosystem services. This will ensure the Bay can continue to provide value for current and future generations.

Why?

Our community consultation in early 2016 indicated that a comprehensive and consistent approach to management of the Bay was not apparent, and that there is a need for greater collaboration across sectors to look after the health of the Bay. There is also opportunity to build upon and expand the many community-based programs that are already in place. The feedback also indicated a desire for more people to 'love the Bay'. Together these findings highlighted the need to improve stewardship of the Bay across all sectors.

Our stewardship goal aims to enhance appreciation for the Bay and support the development of partnerships between government, community and industry to improve the health of the Bay. Strategic priorities to be achieved under the stewardship goal are to:

- Improve appreciation and understanding of Bay values
- Improve collaboration and partnerships across community, industry and government.

However, we will also utilize other stewardship themes and measures (such as best practice adoption rates, commitment levels and attitudinal changes among government, industry and community sectors) to demonstrate progress towards the other goals of the plan that related to water quality and marine life/habitat improvements.

Reporting frequency and format:

The Plan will be delivered over ten years, with annual reporting on progress and major evaluation at five-yearly intervals.

Our Monitoring, Evaluation, Reporting and Improvement (MERI) plan needs to be completed by April 2016 together with our final Plan. Our early thoughts are that measures for stewardship will evolve over the life of the Plan; progressively moving through stages of commitment, participation, behaviour change, to improved outcomes.

For Year 1 stewardship could be measured based on the number of agencies, industries and community groups making a commitment (signing up) to undertake specific actions. Each action could establish participation targets, which are then reported against.

As we move beyond the initial participation, we could look for evidence of behaviour change across broader communities. Given the many different actions across the Plan, examples could be:

- Aboriginal cultural values have been incorporated into habitat restoration plans
- increased take-up by farmers of improved land management to reduce sediment loads
- less littering on streets that drain to waterways and the Bay
- more people participating in beach litter clean-up days
- water authorities working with councils to identify and mitigate cross connections between sewers and stormwater drains to reduce pathogen levels at beaches
- improved stormwater management by urban developers and councils to reduce nitrogen and sediment loads
- more people participating in habitat restoration projects.

Collectively these changes in behaviour will indicate to us that people are caring for the Bay, and taking a more active role to conserve and enhance the value of environmental assets within the Bay.

After the first five years of the Plan, we want to see participation rates continuing to increase, more individuals and organisations changing practices, and improved environmental conditions in the Bay. And if we are not on track to meet our goals we will need to adapt the plan accordingly, so that our goals are met over the next five years (out to 2027).

Stewardship Reports, Reviews and key findings:

As the plan has not been implemented we have no reports or key findings to share. However, over the first year of the Plan, we propose to establish baselines from which to measure improvement against.

SOUTH AUSTRALIA – DEPARTMENT OF ENVIRONMENT, WATER & NATURAL RESOURCES

Definition:

Why?

[Reporting frequency and format:](#)

[Stewardship Reports, Reviews & key findings:](#)

D'ENTRECASTEAUX AND HUON COLLABORATION (TASMANIA)

[Definition:](#)

[Why?](#)

[Reporting frequency and format:](#)

[Stewardship Reports, Reviews & key findings:](#)

DERWENT ESTUARY PROGRAM (TASMANIA)

[Definition:](#)

[Why?](#)

[Reporting frequency and format:](#)

[Stewardship Reports, Reviews & key findings:](#)

MIDCOAST COUNCIL (NSW)

[Definition:](#)

[Why?](#)

[Reporting frequency and format:](#)

[Stewardship Reports, Reviews & key findings:](#)

REFERENCES:

Eco Logical Australia and Adaptive Strategies (2015), *GHHP Stewardship Reporting Project*. Prepared for Gladstone Healthy Harbour Partnership (GHHP).

Eberhard Consulting (2013), *Fitzroy Partnership for River Health Review of Stewardship Measures*. Prepared for Fitzroy Partnership for River Health (FPRH).

Healthy Rivers to Reef Website - <http://healthyriverstoreef.org.au/>

Fitzroy Partnership for River Health website - <http://riverhealth.org.au/>

Gladstone Healthy Harbour Partnership website - <http://ghhp.org.au/>

APPENDIX 1

Regional Report Card Partnerships Summary of Stewardship Frameworks

Background

Stewardship frameworks enable transparent information about management efforts to be communicated to the public as part of the report card process. They also help inform future management and investment decisions by showing where leading and innovative practice is already in use and where areas of improvement may exist.

The Great Barrier Reef Report Card reports on agricultural stewardship (sugarcane, grazing, horticulture and grains) as the portion of the area of land for each sector under current best management practice. This information is used for the Mackay Whitsundays and Wet Tropics report card.

It is intended to use consistent frameworks to report on management effectiveness for non-agricultural industries across all regional report cards. Largely qualitative stewardship frameworks for a number of other activities have already been developed by Eco Logical for use in the Gladstone Harbour, Mackay Whitsunday and Wet Tropics report cards. These frameworks included ports, heavy industry, aquaculture, tourism, fishing (recreational and commercial) and urban.

The frameworks were developed to ensure consistency with one another allowing reasonable comparisons across industries, but also capturing differences that exist between industries. All these frameworks use the nation-wide State of the Environment Report management effectiveness framework as a basis for the stewardship frameworks.

Under the stewardship frameworks, overall stewardship is rated on a four point scale from 'very effective' through to 'ineffective' based on a range of criteria. These criteria considered administrative, operational and development activities during various management phases (planning, implementation and outcome).

The range of data currently available to evaluate stewardship is relatively limited. Assessment of stewardship has therefore relied on publicly available information and self-reporting by agencies and/or industry representative bodies, supplemented with compliance data from government agencies.

Stewardship Data Collection for 2016

Following discussions with the regional report card partnerships, the development of a collaborative approach to help streamline the collection, analysis and reporting of stewardship data to feed into each report card was agreed. The consulting firm Eco Logical will be engaged by each partnership to collect and analyse stewardship data using the frameworks developed, and report to the partnerships to enable a management effectiveness score for each non-agricultural industry type considered relevant to the region to be included in their report cards for this year. Agricultural stewardship will be reported based on the data provided for the Reef Plan Report Card.

It is up to each Partnership to decide which industries they report on for stewardship, based on which industries are considered most relevant for the region. The table below summarises the industries to be reported on for this year's report card as part of the stewardship evaluation.

Activity	Gladstone	Mackay Whitsunday	Wet Tropics
Ports	✓	✓	✓
Heavy Industry	✓	✓	✓
Aquaculture	x	✓	✓
Tourism	✓	✓	✓
Urban	✓	✓	✓
Fishing (recreational)	x	x	✓
Fishing (commercial)	x	x	✓
Agriculture (sourced from Reef Report Card)	x	✓	✓

Stewardship Frameworks

The following frameworks have been developed by Eco Logical for use in the regional report cards:

Ports Stewardship

Separate stewardship frameworks were developed for ports and heavy industry. While Gladstone, Mackay Whitsunday and Wet Tropics has only one port authority, several other companies undertake activities that could be classified as 'port activities', namely dredging and shipping. A distinction was made that all activities undertaken by the relevant port authority and all dredging and shipping activities (undertaken by any company) would be included in the port stewardship framework. All other activities undertaken by companies other than the port authority would be included in the heavy industry framework.

The guiding criteria used to develop frameworks were specifically tailored to port activities in the regions. A list of key activities undertaken by ports that may influence ecosystem health and water quality was developed from consultation with port authority personnel, review of environmental authorities and general industry knowledge. These activities formed the basis for the development of criteria against which the management effectiveness (i.e. stewardship) of the port authority could be evaluated.

Two sources of data were collected – company data via self-reporting (voluntary participation) via a questionnaire with supporting evidence where possible and compliance data from the Department of Environment and Heritage Protection (DEHP).

Compliance data was included but not considered robust due to a low sample size and a range of issues relating to what the data represents (e.g. relates to compliance inspections only and reason for the inspection is not known questioning its relevance to stewardship reporting).

Heavy Industry Stewardship

As previously discussed, all activities (excluding shipping and dredging) undertaken by companies other than the port authority would be included in the heavy industry framework.

Consistent with the methodology and data collection for the Ports framework, the guiding criteria used to develop frameworks were specifically tailored to heavy industry activities in regions. A list of key activities undertaken by heavy industry that may influence ecosystem health and water quality was developed from consultation with industry personnel, review of environmental authorities and general industry knowledge. These activities formed the basis for the development of criteria against which the management effectiveness of companies could be evaluated.

As with Ports, two sources of data were collected – company data via self-reporting and compliance data from the DEHP. Compliance data was not considered robust due to a low sample size and a range of issues relating to what the data represents as previously mentioned. A proxy compliance rate was calculated for heavy industry by dividing the number of inspections with an 'in compliance' and 'no further action' outcome by the total number of inspections and used as one source of information in the development of a stewardship rating.

Aquaculture Stewardship

Aquaculture facilities were identified through liaison with peak representative bodies, local knowledge of the report authors and consultation with the Department of Agriculture and Fisheries (DAF). One of the key areas in which aquaculture operations have the potential to influence ecosystem health of the Reef is the discharge of wastewater. Such discharges are generally licenced in a similar way to those of heavy industry, through Environmental Authorities administered by DEHP.

Consistent with the port and industry frameworks, assessment of aquaculture stewardship was based primarily on completion of questionnaires, aided by compliance data from the Queensland Government. While DEHP did not undertake any compliance inspections of aquaculture facilities in the region during the 2014/15 financial year, DAF completed a variety of inspections for compliance and biosecurity purposes under the Fisheries Act 1994. This compliance rate was used in the stewardship assessment in the same manner described for heavy industry. DAF was also approached to provide data on compliance inspections of the Queensland Boating and Fisheries Patrol (QBFP), an operational section of the Department focused on fisheries and marine safety compliance. Stewardships scores were assessed consistent with those for Ports and Heavy Industry.

Tourism Stewardship

The tourism stewardship framework focused on commercial marine tourism activities operating in the region (e.g. cruises and boat tours, organised diving and snorkelling, air charters and water sport operations). For the purposes of the stewardship framework individual recreational activities and self-hire boats/yachts have been excluded as have resorts and hotels (this latter group is considered to be within the urban category for the purposes of stewardship evaluation).

The stewardship assessment of the tourism industry was focussed on management efforts by tourism operators in the region to maintain or improve the ecosystem health of marine and coastal waters (as the tourism industry is highly reliant on the maintenance of high water quality and ecosystem health within the region). The criteria utilised for evaluating stewardship related to tourism were:

- Participation in recognised environmental industry accreditation programs (including % of accredited operations and/or % of high standard accredited operations; membership of associations with Codes of Practice and auditing).
- Involvement in extension and research projects related to ecosystem health, including citizen science programs, environmental management activities (e.g. physical control of crown of thorns starfish outbreaks).
- Implementation of operational standards to protect the environment (e.g. waste management, incident response and reporting, anchoring and mooring, vessel standards and maintenance).
- Compliance with environmental licenses and cooperative engagement with regulators.
- Training, qualifications, knowledge and awareness of environmental management issues for staff.

Data collection was based primarily on publically available data and discussions with key tourism industry stakeholders, including industry representative bodies with a strong working knowledge of operators' activities and the Great Barrier Reef Marine Park Authority (GBRMPA). An industry questionnaire for tourism operators was prepared but not used for the 2015 report card given timeframes required to collect a representative sample.

Scoring for the tourism industry was therefore generally more qualitative than the approach taken for ports, heavy industry and aquaculture, due to the focus on publicly available information and assessment of the industry as a whole (rather than the averaged results of individual companies within the industry).

Recreational fishing Stewardship/ Commercial Fishing Stewardship

The fishing framework (for both commercial and recreational) was based on four activities and it was considered appropriate to apply different weightings across each to given greater quantitative focus to those activities that are more likely to lead to changes in harbour health, as follows:

- Fishing compliance – 50%
- Vessel compliance – 30%
- Community engagement – 10%
- Harbour health awareness and training – 10%

This framework was used for the 2015 Gladstone Harbour report card, however its use was quite limited as the partnership did not have any representation from the commercial fishing industry or organisations representing recreational fishers, and it was not possible at the time to involve fishing representatives. As such the approach adopted focused mainly on compliance matters, both fishing (e.g. bag limits) and vessel (e.g. safety equipment). Data on fisheries compliance was readily available and provided from DAF's compliance database based on their boating and fishing patrols and inspections. Elements of community engagement and awareness were included in the framework, however at this stage information to populate these components is not readily available.

Urban Stewardship

The stewardship framework is new for 2016 and is designed to evaluate environmental management efforts within urban environments for a range of stakeholders including councils, commercial operators and developers who develop, operate or manage urban development. This includes activities such as residential and commercial development, airports, racecourses, golf courses and tourism resorts. The urban stewardship framework considers issues such as:

- Strategies for the management of diffuse (catchment runoff) and point source (stormwater, sewage treatment plant) discharges.
- Approaches to licencing and management of activities within urban areas (including tourism resorts).
- Development assessment processes and the management of activities affecting water quality and ecosystem health (e.g. sediment and erosion control during construction works).
- Systems in place to support adaptive management of catchments, such as regular monitoring and scientific studies to identify areas of high, medium and low risk, and to assess the effectiveness of management efforts.
- Education and community engagement activities.

In developing this framework, Health Waterways and Reef Catchments were consulted to ensure the framework is also consistent with the concepts and approaches taken by these organisations in developing their own frameworks.

Stewardship Framework Review

It is proposed that following the collection and reporting of stewardship data for the report cards, a review of the stewardship frameworks will be undertaken annually to identify opportunities for improvements and further refinement. In particular, consistency with expanded stewardship reporting undertaken as part of next year's Reef Report Card and the establishment of a more quantifiable framework based on targets could be considered. This review would be coordinated by EHP in consultation with the Stewardship Working Group/partnership staff and relevant independent experts. The development of additional stewardship frameworks may also be considered based on discussions with the partnerships.

APPENDIX 2 – Overview of GBR catchment Report Cards

Report card	Location / Coverage			Frequency	Condition Indicators				Overall Indicators	Management / Stewardship				Monitoring design	
	Catchment / freshwater	Estuarine	Marine		Annual	Economic	Social	Cultural		Enviro	Progress to targets	ABCD reporting	Case studies	Indicators	Uses existing programs
Great Barrier Reef report card 2015	✓		✓	✓				✓	Environmental Marine – seagrass, water quality, coral 4 yearly - wetland & riparian extent	✓	✓ Built into target scoring		Grazing, sugarcane, horticulture, groundcover, nitrogen, sediment, pesticides	✓	✓
Wet Tropics Pilot Report Card	✓	✓	✓ (inshore and offshore)	✓	✓	✓	✓	✓	Economic and Social wellbeing, use and dependency, cultural context Cultural value of waterways Environment Marine – seagrass, water quality, coral Estuarine – fish, habitat and hydrology, water quality Freshwater – fish, habitat and hydrology, water quality		✓ (Speedometers)		Urban, horticulture, grazing, sugarcane, ports, industry, tourism, fishing, aquaculture	✓	
Mackay Whitsunday Report Card 2015	✓	✓	✓ (inshore and offshore)	✓	✓	✓	✓	✓	Economic value of waterways, economic contribution of the major industries Social perception of health, perception of management, satisfaction with experiences Cultural value of waterways Environment Marine – fish, seagrass, water quality, coral Estuarine – fauna, habitat and hydrology, water quality Freshwater – fauna, habitat and hydrology, water quality		✓ (Speedometers)		Urban, horticulture, grazing, sugarcane, ports, industry, tourism, aquaculture	✓	
Fitzroy Basin Report Card 2014-15	✓	✓		✓		✓ (Drinking water)		✓	Environmental Freshwater – Physchem, Nutrients, Toxicants, Ecology Estuary – Physchem, Nutrients, Ecology, Marine – part of Reef Plan		● Proposed	✓	Currently being considered	✓	✓
Gladstone Harbour Report Card 2015		✓	✓ (Gladstone Harbour)	✓	✓	✓	✓	✓	Economic economic value, stimulus, performance Social harbour access and useability, liveability and wellbeing Cultural sense of place and cultural heritage Environment Water and sediment quality, habitats, fish and crabs		✓ (Speedometers)	✓	Urban, ports, industry, tourism	✓	✓ (Social and economic aspects)

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