PERFORMANCE INDICATORS



KEEPING IT

A 25 YEAR STRATEGIC PLAN FOR THE GREAT BARRIER REEF WORLD HERITAGE AREA 1994 - 2019

PERFORMANCE INDICATORS

To enable the implementation of the Great Barrier Reef World Heritage Area Strategic Plan to be evaluated, the Planning Team developed a series of Performance Indicators against which the achievement of objectives can be assessed.

In this appendix, each 5 Year Objective and its associated strategies have been listed along with the performance indicator developed by the Planning Team. The lead agency for that strategy is also listed, as are the stakeholders who will be involved in the achievement of the objective.

This appendix will enable a systematic review of the Plan to be undertaken.

Lead Agency: In regard to this Strategic Plan, the general role of a lead agency is defined as having the following responsibilities:

coordinate policy development within an overall strategy through a consultative process;

develop standards through a consultative process;

• advise other agencies on the implementation of the policies and standards and advocate their implementation as widely as necessary;

· where a number if agencies are involved, plan and coordinate management;

• manage specific issues or areas within jurisdictional responsibilities;

monitor outcomes and provide feedback to other agencies involved;

 report to Government on the level of success on the policies advising how the performance might be improved and seeking resolution of any areas of conflict with other agencies; and

· carry out agreed strategies.

Key Player: The general role of a key player is defined as having the following responsibilities:

 be involved in consultation with lead agencies on issues relating to their jurisdictional responsibilities;

consult with their organisational membership;

provide information to Lead Agency;monitor role of Lead Agency; and

· carry out agreed strategies.

Abbreviations used in this table:

A&TSI* Aboriginal and Torres Strait Islander, both organisations and communities

ACC Aboriginal Coordinating Council

AFMA Australian Fisheries Management Authority

AHC Australian Heritage Commission
AIMS Australian Institute of Marine Science

AMPTO Association of Marine Park Tourism Operators

AMSA Australian Maritime Safety Authority
ANCA Australian Nature Conservation Agency
AQIS Australian Quarantine Inspection Service
ATIA Australian Tourism Industry Association

ATSIC Aboriginal and Torres Strait Islander Commission CEPA Commonwealth Environmental Protection Agency

Conservation Conservation groups

DEST Department of the Environment, Sport and Territories

DOD Department of Defence

Education Dept Queensland Department of Defence Fisheries Commercial fishing industry

GBRMPA Great Barrier Reef Ministerial Council
GBRMPA Great Barrier Reef Marine Park Authority

Health Dept Queensland Department of Health

ICC (Torres Strait) Island Coordinating Council

Industry Reef-related industries

APPENDIX 8 - PERFORMANCE INDICATORS

Local Govt Local City and Shire Government

PETD Queensland Department of the Premier, Economic and Trade Development

PM&C Department of Prime Minister and Cabinet QBFP Queensland Boating and Fisheries Patrol

QCFO Queensland Commercial Fishermen's Organisation
QDEH Queensland Department of Environment and Heritage

QDFSAIA Queensland Department of Family Services and Aboriginal and Islander Affairs

QDHLGP Queensland Department of Housing, Local Government and Planning

QDME Queensland Department of Minerals and Energy

QDOT Queensland Department of Transport

QDPI Queensland Department of Primary Industries
QDS&R Queensland Department of Sport and Recreation

QFMA Queensland Fish Management Authority

Qld Museum Queensland Museum

QSRFC Queensland Sport and Recreational Fishing Council

QTTC Queensland Tourist and Travel Corporation

Science All branches of Science, physical, biological, social and economic

in a variety of institutions and organisations

Tourism

Tourism industry

WHA Great Barrier Reef World Heritage Area

^{*} When strategies implemented, specific organisations/communities determined by negotiation.

- CONSERVATION

YEAR OBJECTIVE

ensure the persistence of the Great Barrier Reef World Heritage Area as a diverse, silient, and productive ecological system, while retaining opportunity for a diverse range experiences and uses consistent with Australia's obligations under the World Heritage onvention.

YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
have in place integrated magement strategies for conservation* of the eat Barrier Reef World ritage Area.	Develop, in consultation with stakeholders, integrated planning for conservation of the Area consistent with Australia's obligations under the World Heritage Convention, and, where applicable, the Inter-Governmental Agreement on the Environment.	Conservation objectives dealt with in plans. Complementarity of management plans. Degree of documentation of biological communities and causes of degradation. Plans addressing impacts.	GBRMPA QDEH	All stakeholders
	Document existing biological communities, as appropriate, and causes of degradation to enable impacts and their cumulative effects to be assessed and accounted for in regional planning and resource management plans.		GBRMPA QDEH QDPI	All stakeholders
To have in place clear policies for the conservation of major cological communities in the Area.	1.2.1 Develop, in consultation with stakeholders, policies for the conservation of the following biological communities: coral reefs, mangroves, island vegetation, seagrass, Halimeda beds, cays, inter-reefal areas, and the Great Barrier Reef lagoon.	Amount of unnatural loss of mangroves, seagrasses, live coral cover and island vegetation at both regional and local levels.	GBRMPA QDEH	QDEH QDPI QFMA Conservation Science
o address and negotiate in he light of existing nowledge and the recautionary principle, he adequacy of the roportion of the Great Barrier Reef World Heritage Area in which impacts are constrained and which is free from structures and extraction.	1.3.1 Negotiate with stakeholders the size and location of such areas and the level of human access and activity on the basis of scientific knowledge and the precautionary principle, while ensuring the needs and interests of stakeholders are properly taken into account.	Agreed percentage of each representative biological community protected. Agreed percentage of each representative biological community protected.	GBRMPA QDEH	QDEH QDPI QFMA Conservation Science
	1.3.2 Set aside those areas through zoning and other management arrangements.		GBRMPA QDEH	All stakeholders

Words appearing in italics are defined in the Glossary of the Strategic Plan.

5 YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
1.4 To protect representative biological communities throughout the Area to act as source areas, reference areas, and reservoirs of biodiversity and species abundance.	1.4.1 Identify and protect representative biological communities throughout the area.	Adequate percentage of each representative biological community protected.	GBRMPA QDEH QDPI	QDEH Science Conservation
1.5 To pay special attention to conserving rare and endangered species.	1.5.1 Identify species which are endangered in the Area and identify threats to their survival. 1.5.2 Develop and implement	Recovery of species to sustainable numbers. In short term, the number of recovery strategies implemented with monitoring.	ANCA GBRMPA QDEH GBRMPA QDEH	QDEH QDPI QFMA QDPI QFMA
	appropriate coordinated management actions. 1.5.3 Develop and implement appropriate coordinated management actions in the Area for species which are globally endangered.		ANCA GBRMPA QDEH	QDPI QFMA
1.6 To aim to prevent ecologically unsustainable loss and degradation of marine and terrestrial biological communities while recognising that some localised losses may	1.6.1 Develop mechanisms to address the cumulative impacts of localised projects through regional planning and management plans.	Amount of ecological unsustainable loss of mangroves, seagrasses, live coral cover and island vegetation at both regional and local levels.	GBRMPA QDEH QDPI	All agencies
occur which, on a cumulative basis, must not compromise the World Heritage Area's diversity.	In consultation with stakeholders, develop guidelines for human uses which aim to maximise retention of specific biological communities. Give effect to guidelines through resource management plans and regulations.		GBRMPA QDEH QDPI	All agencies
	1.6.3 Recognising that some localised losses of biological communities may occur, give effect to guidelines through resource management plans and regulations.		GBRMPA QDEH QDPI	All agencies

YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
o rehabilitate and/or edevelop seriously egraded sites which are alikely to recover aturally within a time ame acceptable to akeholders, while ecognising that the iodiversity of the World eritage Area must be aintained and protected.	1.7.1 In consultation with stakeholders, identify and prioritise sites for attention, determine and implement appropriate action.	Indices of recruitment and growth of indicator species in previously degraded areas.	QDEH GBRMPA	Tourism Science QCFO Conservation
o prevent the troduction of, mitigate impact of, and/or ase out ecologically sustainable practices ting the Area.	1.8.1 Identify and assess the risks of ecologically unsustainable practices affecting the Area, (for determination of ecological sustainability see Research and Monitoring)	Number of ecologically unsustainable practices occurring in the area.	GBRMPA	QCFO QDPI QDEH Science QSRFC Conservation A&TSI
	1.8.2 Develop management options aimed at mitigating or phasing out these practices (see <i>Resource</i> Management 2.2 and Integrated Planning).		GBRMPA	QDEH Tourism Industry AMSA QDPI QDOT Local Govt
o provide for portunities for a diverse ange of ecologically ustainable and ppropriate experiences and uses.	1.9.1 Develop and continually update through a process of consultation, criteria for the assessment of the ecological sustainability and appropriateness of opportunities for experience and use. 1.9.2 Identify current opportunities for ecologically sustainable experiences and uses. 1.9.3 Implement measures to guarantee the maintenance of opportunities and future options for a diverse range of ecologically sustainable and appropriate experiences and uses.	Percentage of recorded and forecasted ecologically sustainable opportunities for use which are still available. Percentage of ecologically sustainable uses which people apply or desire to engage in, which are no longer available.	GBRMPA QDEH	Tourism Conservation QSRFC (QCFO and every stakeholder as they are related to use)

5 YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
To protect the cultural heritage of the Area as represented by archaeological and historical sites and other places of importance and/or in accordance with the Burra Charter, sites of religious or cultural importance to Aboriginals and Torres Strait Islanders.	1.10.1 Identify and record archaeological and historical sites and other places of significance. 1.10.2 In negotiation and cooperation with Aboriginals and Torres Strait Islanders accelerate, where appropriate, the identification and recording of archaeological, religious or cultural sites of historic significance which they wish to be documented. 1.10.3 Through a process of negotiation develop conservation and protective programs for sites, places and for Aboriginal and Torres Strait Islander sites with the agreement of the traditional owners. 1.10.4 Where appropriate, assess the local, national and international significance of such sites.	Percentage of the area either systematically surveyed (by qualified people) for Aboriginal sites and places of importance or specifically excluded from survey as a result of Aboriginal or Torres Strait Islander wishes. Percentage of area systematically surveyed for historic sites. Percentage of known discovered sites entered on site inventory or register. Percentage of known sites assessed for significance. Percentage of sites identified as significant for which conservation or protection plans or programs have been devised.	QDEH GBRMPA Qld Museum AHC	A&TSI QDEH GBRMPA QId Museum Science
1.11 To minimise the impacts of human-induced disasters to important ecosystem processes and biological communities.	1.11.1 Identify, assess and minimise the risks of potential human-induced disasters. 1.11.2 Develop contingency plans for mitigating the impacts of human-induced disasters.	Amount of impact compared with expected impact of such disasters after minimisation programs.	AMSA GBRMPA QDEH	QDOT QDPI QDEH Tourism AQIS

2 - RESOURCE MANAGEMENT

25 YEAR OBJECTIVE

To facilitate the sustainable multiple use of the resources of the Great Barrier Reef World Heritage Area, through integrated management systems which are complementary with the management of the adjacent regions. This should be done in a manner consistent with the maintenance of World Heritage, ecological, social and economic values, recognising that the viability of many activities relies on the maintenance of the ecosystem.

5 YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	THE RESERVE THE PERSON NAMED IN COLUMN 2 IS NOT THE OWNER.	KEY PLAYERS
2.1 To implement ecologically sustainable levels of use of the Area's resources.	2.1.1 Develop management plans using research and monitoring data and other relevant information and which consider	The difference between actual and agreed levels of extraction or use for each resource.	GBRMPA QDEH	All those involved in developing plans
	ecological, social and economic factors. 2.1.2 Coordinating organisation to consult with all other relevant stakeholders in the preparation of plans.	Number of agreed management plans in place in proportion to the total number of management plans required. Number of objections to management planning a process.	GBRMPA QDEH	All those involved in developing plans All those
	Develop open processes for dispute resolution and for the allocation of limited resources considering the views of all stakeholders.	Number of objections by other users to impacts of particular uses.	QDEH	involved in developing plans
	2.1.4 Use research and monitoring data in the implementation and evaluation of management plans, and in the assessment of the ecological sustainability of new activities.		GBRMPA QDEH	All those involved in developing plans
	2.1.5 Review and implement marine parks zoning plans.		GBRMPA QDEH	All those involved in developing plans
To develop, implement and evaluate management plans for harvestable resources.	2.2.1 Queensland Fish Management Authority to coordinate development, implementation and evaluation of management plans incorporating the needs of commercial, recreational and traditional fishing for as many as possible of the following: trawl fishery reef line and spear fishery net fishery tropical rock lobster fishery crab fishery trochus fishery bêche-de-mer fishery aquarium fish fishery sea snake fishery some bait fisheries potential fisheries.	2.2 as for 2.1	QFMA	QDPI QCFO QSRFC GBRMPA Science Stakeholders

5 YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
2.2/continued	Queensland Department of Primary Industries to coordinate development, implementation and evaluation of management plans incorporating the needs of commercial, recreational and traditional collecting and gathering for as many as possible of the following fisheries: - coral - shells - mariculture - edible oyster - pearl shell.	2.2 as for 2.1	QDPI	QFMA A&TSI QCFO QSRFC GBRMPA QDEH Science All stakeholders
	Australian Fisheries Management Authority to coordinate development, implementation and evaluation of management plans incorporating the needs of commercial, recreational and traditional fishing for:		AFMA	QFMA A&TSI QCFO QSRFC Science All stakeholders
	 tuna and billfish fishery (including some bait). 			
	2.2.4 Great Barrier Reef Marine Park Authority and Queensland Department of Environment and Heritage in conjunction with other relevant agencies to coordinate development, implementation and evaluation of management plans for:		GBRMPA QDEH	QDEH A&TSI Science QFMA QCFO QDPI ANCA All stakeholders
	dugongsturtleswhales and dolphinscrocodiles.			
2.3 To develop, implement, and evaluate management plans for non-extractive activities.	2.3.1 Organisation responsible to coordinate the development of management plans for <i>tourism</i> sectors.	2.3 as for 2.1	QTTC AMPTO ATIA	GBRMPA QDEH
	2.3.2 Organisations responsible to determine recreational activities requiring management plans and coordinate development of such plans with relevant <i>stakeholders</i> .		GBRMPA	QDEH Tourism QDS&R Local community A&TSI Local Govt

R OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
rtinued	2.3.3 Individual Port Authorities or agency responsible, in consultation with relevant stakeholders, to develop and implement management plans for ports.		Port Authorities & Harbours Corps	
	2.3.4 Queensland Department of Transport and Australian Maritime Safety Authority to coordinate the development of management plans for shipping.		QDOT AMSA	GBRMPA QDEH
	2.3.5 Queensland Department of Transport to coordinate the development of management plans for recreational boating.		QDOT	
evelop, implement and ate management plans pecific sites of high nd/or conservation or heritage value as ired.	2.4.1 Agency responsible to coordinate the development, implementation and evaluation of management plans. Where this involves sites of significance to Aboriginals and Torres Strait Islanders this should only be done where they desire it.	2.4 as for 2.1	GBRMPA QDEH	QDPI DOD QDOT Science (& other on casual basis) Local community A&TSI Relevant stakeholders
eview and implement ne Park zoning plans.	2.5.1 Great Barrier Reef Marine Park Authority to review zoning plans:	2.5 as for 2.1 Revised zoning plans in place	GBRMPA	All stakeholders
	 Far Northern Section Central Section. 2.5.2 Queensland Department of Environment and Heritage to declare Cape York Marine Park and commence the review of the 		QDEH	All stakeholders
	Townsville/Whitsunday Marine Park.			D.1
implement guidelines the extraction of small atities of non-living arces.	2.6.1 Agency responsible to coordinate the development and implementation of guidelines fo removal of small quantities of: - coral sand and shingle - riverine sand and gravel and silica sand considering the purpose, method, quantities and the substance being extracted.	number for which they are necessary. Degree of compliance	QDME QDEH & GBRMP. (silica sar QDPI, QDME & QDOT (riverine sand & gravel	nd)

5 YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
2.7 To develop guidelines for dredging and disposal of	2.7.1 Agencies responsible to coordinate the development,	Dredge spoil disposal guidelines in place.	as for 2.6	Relevant Stakeholders
dredge spoil in the Area.	implementation and evaluation of guidelines.	Number of objections by other users to impacts of this use.		
2.8 To resolve sea dumping responsibilities between agencies.	2.8.1 Commonwealth and State agencies negotiate to resolve sea dumping responsibilities.	Sea dumping issues resolved	CEPA QDEH GBRMPA	GBRMPA QDOT
	2.8.2 The agencies responsible implement appropriate legislative changes.			

- EDUCATION, COMMUNICATION, CONSULTATION AND COMMITMENT

5 YEAR OBJECTIVE

To have a community of responsible, informed individuals who have a broadly-based and widely-accepted inderstanding of the diverse values, natural attributes and ecologically sustainable use of the Great Barrier Reef World Heritage Area, who:

show commitment to the maintenance of a healthy natural system

recognise the importance of having the opportunity for input into the way the Great Barrier Reef

World Heritage Area is managed

act consistently to conserve and use in an ecologically sustainable way the Great Barrier Reef World Heritage Area.

YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
o inform the community, arough coordinated rograms, of the natural, altural and heritage values the Area and how to use responsibly.	3.1.1 Develop a coordinated education program including: - community education programs - formal education programs highlighting the processes and philosophies used in World Heritage Area management.	Percentage of population who are aware of natural and cultural heritage values of the area and how to use it properly.	GBRMPA QDEH	All stakeholders
	3.1.2 Develop coordinated extension programs targeting specific groups and/or issues to be developed and implemented by appropriate <i>stakeholders</i> .			
	3.1.3 Develop culturally appropriate education/extension programs for <i>users</i> of the World Heritage Area	er ming grann beide myg en bortomydda arendan er er arendan o dae'r		
	3.1.4 Encourage the marine parks' consultative committees to act as an education and extension advisory committee to identify			
	target groups and priority issues for short, medium and long term information dissemination.			
	3.1.5 Incorporate education strategies in management plans as appropriate.			
	3.1.6 Through education, ensure a wide understanding of the legislation relevant to the Area.			
	3.1.7 Evaluate programs for efficiency and effectiveness.			

5 YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
3.2 To encourage the community to act responsibly towards the Area.	3.2.1 Encourage appropriate organisations and community groups to provide incentives and encouragement for responsible behaviour. 3.2.2 Develop mechanisms for exchanging ideas between	Number of disputes regarding rejection of non ecologically sustainable proposals. Percentage of people who act responsibly when in the area.	GBRMPA GBRMPA	All stakeholders All stakeholders
	different groups and gaining respect for each others values.			
	3.2.3 Foster development of stakeholder-generated codes of behaviour.		GBRMPA	All stakeholders
	3.2.4 Monitor the way the community acts toward the Area and evaluate methods of encouragement.			
3.3 To have a community which participates effectively in the management and planning for the Area.	3.3.1 Provide opportunities for community participation in policy formulation and planning. 3.3.2 Develop procedures to ensure managers hear, accommodate and respond to community input. 3.3.3 Provide opportunities for community participation in day-to-day management activities.	Number of responses in Public Participation programs. Number of responses which contain factual errors. Number of responses which display understanding of principles of ecologically sustainable use.	QDEH QDPI GBRMPA QDEH QBFP	All stakeholders
	3.3.4 Review the functions of the Great Barrier Reef Consultative Committee and the Queensland Marine Parks Consultative Committee with a view to ensuring that they have the capacity to interact effectively with all stakeholders.		GBRMPA	
	3.3.5 Monitor and evaluate the participation of the community in the management and planning of the Area.			

4 - RESEARCH AND MONITORING

35 YEAR OBJECTIVE

o obtain and disseminate accurate and timely information which will help decision makers and maximise mmunity confidence in decisions made regarding the Great Barrier Reef World Heritage Area.

YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
improve understanding basic ecological occasses occurring in Area.	4.1.1 Undertake research and modelling programs aimed at understanding the basic ecological processes occurring in the Area.	Increase in understanding of biological processes. Area-wide monitoring program established.	GBRMPA	Science QDEH Relevant stakeholders
	4.1.2 Establish an integrated Areawide monitoring program.	Number of issues identified in planning process still requiring answers/information for confident/reliable planning solutions to be implemented.	٩.	
improve understanding basic geological and sysical processes curring in the Area.	4.2.1 Undertake research programs aimed at understanding the basic geological and physical processes occurring in the Area.	Increase in understanding of geological and physical processes.	GBRMPA Science	QDEH All stakeholders
the Area.		Number of issues identified in planning process still requiring answers/information for confident/reliable planning solutions to be implemented.		
establish an information d knowledge base for the ea and for its ologically sustainable ultiple use.	4.3.1 Establish a publicly accessible network of systems for the storage, retrieval and dissemination of existing and newly acquired, non-confidential information relevant to the Area.	Proportion of projects for which output is available in databases, refereed publications, management recommendations and extension material.	GBRMPA Science	All stakeholders as appropriate
	4.3.2 Develop methods for interpreting and applying the results of research and monitoring.			
	4.3.3 Disseminate the results of research, monitoring and applications through refereed publications, management recommendations and extension material.		GBRMPA Science	All stakeholders

5 YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
4.4 To establish research and monitoring programs which address the information needs for the conservation	4.4.1 Develop and prioritise research and monitoring programs in conjunction with <i>stakeholders</i> .	Research and Monitoring programs established for priority areas. Long term commitments of funds	GBRMPA Science	QDPI QDEH
and ecologically sustainable use of the Area.	4.4.2 Organise current and proposed research and monitoring initiatives into major program areas each of which includes applied and basic research and monitoring.		GBRMPA Science	QDPI QDEH
	4.4.3 Obtain guarantees of ongoing funding from government and private sources for programs on a five yearly basis.		GBRMPA	Relevant stakeholders
4.5 To improve the basis for selecting areas to be given a high level of protection.	4.5.1 Accelerate the compilation of a comprehensive inventory of the natural and, as appropriate, cultural <i>resources</i> of the Area and the patterns of use.	Data base and review system for selection of protected areas initiated.	GBRMPA Science	QDPI QDEH Relevant stakeholders
	4.5.2 Develop decision support systems to optimise the selection of protected areas using the inventory as a basis.			
4.6 To improve the capacity to determine ecologically sustainable catches for major fisheries in the Area	4.6.1 Conduct research on life histories and population dynamics of selected major target species and monitor and evaluate trends in their population parameters.	Proportion of target species for which information on distribution, abundance and population dynamics and catch per effort ratios are known.	GBRMPA Science	QDPI QDEH QFMA Relevant stakeholders
	4.6.2 Monitor and evaluate trends in catch/effort ratios for major fisheries.			

YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
4.7 To improve the understanding of the effects of fishing on non-target and target species and their habitats.	4.7.1 Conduct research into the effects of trawling on non-target species, their habitats and nearby coral reefs. 4.7.2	Proportion of fisheries for which information on impacts on target species and non-target species and their / habitats is available.	GBRMPA Science	QDPI QDEH Relevant stakeholders
	Conduct research into the effects of reef-based fishing activities on biological communities. 4.7.3 Monitor and, where appropriate, undertake tests of innovative fishing technologies to assess their effects. 4.7.4 Conduct impact studies at the developmental stage of new or extended fisheries.	Number of issues identified in planning process still requiring answers/information for confident/reliable planning solutions to be implemented. Level of confidence able to be ascribed to the measures of impact.	?	
To improve the capacity to letermine ecologically ustainable levels of ourism and recreation and their effects on visitor	4.8.1 Conduct research on the nature and extent of <i>tourism</i> and recreation within the Area.	Proportion of tourist and recreational activity types for which estimates of ecologically and economically	GBRMPA QDEH	QFMA Tourism Conservation QDEH
experiences and attitudes.	4.8.2 Monitor and evaluate trends in <i>tourism</i> and recreational use of the Area.	sustainable levels of use are scientifically based.	GBRMPA Science	PETD
	4.8.3 Conduct research on the life history and population dynamics of species of major significance to tourism and recreation and evaluate trends in their population parameters.		GBRMPA Science QDEH QDPI	Tourism QDEH QSRFC
	4.8.4 Conduct research into the ecological effects of major tourism and recreational practices at sites subjected to varying levels of use.			
	4.8.5 Conduct research into the effects of major <i>tourism</i> and recreational practices and other uses of the Area on visitor experience, attitudes and opportunities.			

5 YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
4.9 To provide additional information on the socio- economic characteristics and impacts of major human activities affecting the Area.	4.9.1 Conduct research into the socioeconomic characteristics and effects of: traditional use tourism shipping recreation port development management land-based activities fishing extraction of non-renewable resources where this is permitted. 4.9.2 Conduct research into the socioeconomic aspects of intersectoral issues related to the use and management of the Area.	Proportion of major human activities for which socio-economic information is available.	GBRMPA Science A&TSI Tourism QDOT	Relevant stakeholders
4.10 To develop, in conjunction with Aboriginals and Torres Strait Islanders, an understanding of their marine resource use, management practices and maritime knowledge.	4.10.1 Conduct research on the ecological sustainability of traditional hunting, fishing and gathering. 4.10.2 Conduct research on the effects of non-traditional use on the harvesting of those resources used traditionally by Aboriginals and Torres Strait Islanders. 4.10.3 Conduct research with Aboriginals and Torres Strait Islanders on appropriate cultural uses and sites, use rights and traditional maritime tenure and management.	Proportion of communities for which data on take of dugongs and turtles is available. Proportion of stocks exploited by Aboriginal and Torres Strait Islander people for which information obtained. Number of Aboriginal and Torres Strait Islander groups for which information has been documented and accepted by the group. (see section 6)	GBRMPA A&TSI QDEH QDFSAIA	A&TSI QDEH Science A&TSI Science QDEH
4.11 To investigate effects of nutrients, sediments, toxic pesticides, herbicides and other toxic pollutants with a view to reducing their inputs and impacts in the Area.	4.11.1 Quantify these land-based inputs to the Area. 4.11.2 Investigate levels of sediment and nutrient inputs from terrestrial runoff and marine pollutants with a view to developing standards/reference values which do not damage the ecological integrity of affected coral reefs and seagrass beds.	types and contaminants for which appropriate standards available.	GBRMPA (water quality program)	Science QDPI QDEH

5 YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
4.11/continued	4.11.3 Develop and establish a monitoring program to detect trends and changes in water quality parameters, indicator organisms, and biological communities, and investigate the causes of major trends. 4.11.4 Encourage the development of methods of reducing undesirable land-based inputs and other pollutants to the Area. 4.11.5 Encourage the development of			
	ecologically benign methods of pest and weed control. 4.11.6 Determine the levels of toxic pollutants such as heavy metals and pesticides in food resources		QDPI	Health Dept Science Aust Food Agency
	harvested from the Area. 4.11.7 Conduct research into the effects of dredging and spoil dumping on the Area.			
	4.11.8 Determine methods of reducing the effects of dredging and spoil dumping on the Area.			
To quantify the nature and extent of the effects of some major natural and man-induced disturbances at the ecosystem/s of the Area, and improve the capacity to predict recovery from such disturbances.	 4.12.1 Investigate the impacts on the Area of major natural and human-induced disturbances such as: cyclones major flood events crown-of-thorns starfish outbreaks oil spills. 	Estimates of the relationship between nature and extent of disturbance and recovery time for major habitats.	QDEH	QDEH QDPI Tourism
	4.12.2 Conduct research on the causes and effects of outbreaks of crown-of-thorns starfish populations.		Science	
	4.12.3 Conduct research on the capacity of major biological communities to recover from disturbance and the factors influencing recovery.			

5 YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
4.12/continued	4.12.4 Construct and test predictive models of recovery. 4.12.5 Develop techniques for rehabilitating disturbed biological communities at high-value sites.		GBRMPA	
4.13 To develop methods for the evaluation of current and proposed management strategies.	4.13.1 Identify species in each major biological community which are sensitive to the effects of different types of levels of impact or use. 4.13.2 Monitor selected sensitive species at sites subject to different management regimes, types and levels of use or impacts from outside the Area. 4.13.3 Develop techniques to document cumulative impacts on major biological communities at a regional level.	Proportion of rehabilitated sites for which monitoring programs are in place. Proportion of selected reefs monitored at least twice during duration of each zoning plan. No of evaluation techniques documented.	GBRMPA Science QDEH	QDEH QDPI
4.14 To improve the capacity to determine the economic values of selected major biological communities and uses of the Area.	 4.14.1 Encourage the development of economic approaches to valuing: - major biological communities subjected to varying levels of impact - major uses of the Area as required. 4.14.2 Undertake economic studies on the value of alternative uses of key sites and selected biological communities. 4.14.3 Assess the value of the Area to regional, state and national economies. 	Documented technique to determine economic value of some communities and uses.	Science (Economics) GBRMPA QDEH	Relevant stakeholders

5 - INTEGRATED PLANNING

25 YEAR OBJECTIVE

To ensure that planning standards and guidelines for development, use, water quality and *conservation* aim to achieve a healthy, properly functioning Great Barrier Reef World Heritage Area. These standards and guidelines should be coordinated across geographical boundaries and between *stakeholders*, while facilitating sustainable economic activity and contributing to the social well-being of the community. Accordingly, the water quality initiatives should aim to reduce human-caused inputs into the World Heritage Area of silt, nutrients, toxic pesticides, herbicides and other toxic *pollutants* to as close to zero as possible through the development and application of technology and advanced management systems and practices. Input levels should be consistent with the maintenance of the diversity of species and habitats and the ecological integrity of the system.

5 YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
5.1 To establish a regionally-based	5.1.1 Develop coordinated regional planning frameworks and	Time taken for decisions.	QDHLGP	All organisations
mechanism for integrating planning activities between the flowing:	mechanisms for the coordination of guidelines covering both the World Heritage Area and adjacent	Cost of decision to all sides compared with now.		
Integrated Catchment Management	regions.	Number of memoranda of understanding		
Strategy - Land Care - Coastal Protection Strategy - World Heritage Areas: Great Barrier	5.1.2 Ensure regional planning guidelines are taken into account in individual environmental assessments.	Degree of consistency of resulting plans and actions in their affects on World Heritage Area	GBRMPA QDEH PETD	All organisations
Reef and Wet Tropics - public utilities - local authorities	5.1.3 Clarify responsibilities between agencies.	values and management.	PETD GBRMPA	All organisations
 Cape York Peninsula Land Use Strategy Marine Park zoning plans, 	5.1.4 Implement memoranda of understanding between agencies.		All agencies	All organisations
 other relevant planning exercises and plans User groups Government agencies 	5.1.5 Aim for <i>one-stop shops</i> for facilitating consideration of applications for appropriate classes of development.		PETD	All organisations
To coordinate planning for the Great Barrier Reef World Heritage Area with the Torres Strait Protected region and the Australian Fishing Zone.	5.2.1 Establish formal communication mechanisms between management agencies for the three areas.	Compatibility of other plans with Great Barrier Reef World Heritage Area Plans.	GBRMPA	PETD QFMA & AFMA (Fishing) A&TSI (TS) Tourism Relevant organisations
	5.2.2 Establish procedures to measure the impact of the proposed management plans for the other areas on the Great Barrier Reef World Heritage Area.		GBRMPA	Relevant parties

5 YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
5.3 To have in place negotiated interim levels/standards/ reference values for: - fresh water quantity - silt loads - nutrients - pesticides - herbicides - other pollutants in the World Heritage Area.	Form working groups involving relevant local, state and national organisations under the Great Barrier Reef Marine Park Authority Technical Advisory Committee on Water Quality to establish levels, standards and reference values for: - fresh water quantity - silt loads - nutrient levels - pesticides - herbicides - urban storm water quality - other pollutants by reviewing all available data, identifying gaps in available information, and recommending data collection programs.	Numbers of levels/values standards/reference determined and implemented. Proportion of stakeholders agreeing on levels and standards. Legislation or memoranda of understanding in place. Number of memoranda of understanding in place versus number that are needed.	GBRMPA	QDPI QDEH Relevant parties
	5.3.2 Negotiate acceptance of standards/reference values and compliance by appropriate groups: - Commonwealth, state and local authorities - rural communities - urban communities - Aboriginal and Torres Strait Islander communities - industry - individuals.		GBRMPA QDPI QDEH	Relevant stakeholders
	5.3.3 Test, monitor and review data relative to standards and review standards/reference values, wher and where appropriate.		GBRMPA QDPI QDEH	Relevant stakeholders
	5.3.4 Monitor water quality and assess compliance with standards and reference values.		GBRMPA QDPI QDEH	Relevant stakeholders
	5.3.5 Seek compliance with standards/reference values by memoranda of understanding or enforce with legislation as appropriate.		GBRMPA	Relevant stakeholders
	5.3.6 Facilitate public acceptance and support of standards/reference values through education.	i	GBRMPA QDPI QDEH	Relevant stakeholders

5 YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
To have catchment management strategies planned and their implementation commenced in those priority river catchments that will adversely impact on the Great Barrier Reef World Heritage Area.	5.4.1 Ensure that Integrated Catchment Management legislation is prepared, that priority catchments which adversely impact on the Great Barrier Reef World Heritage Area are identified and that catchment management strategies link with relevant strategies for the Area.	Actual to standards. Number of catchments with Integrated Catchment Management strategies in place.	QDPI	Estantia Lie person
troble fields	5.4.2 Encourage community groups and other stakeholders to endorse and implement an Integrated Catchment Management Strategy for their catchment.		QDPI	QDEH QDHLGP
To have an effective Coastal Protection Strategy and legislation in place.	5.5.1 Ensure that state-wide and regional coastal protection plans and this Plan are complementary.	Number of non- conforming land uses. Number of Coastal Regional Plans inplemented.	QDEH PETD	QDEH QDPI GBRMPA Management organisations
	5.5.2 Ensure planning guidelines are taken into account in individual environmental impact assessments.	inpolicined.	QDEH QDHLGP PETD	Management organisations
	5.5.3 Ensure that management agencies cooperate with the Department of Environment and Heritage to ensure the Coastal Protection Act and this Plan are complementary.		QDEH	Management organisations
6 To have regional coordinated planning for the local authorities influencing the Area.	5.6.1 Establish Regional Organisations of Councils centred on: - Cairns - Townsville - Mackay/Whitsunday - Rockhampton/ Gladstone/Bundaberg. 5.6.2 Include user, community and environmental groups in regional planning processes eg through Regional Planning Advisory Committees.	Time taken for decision. Cost of decision to both sides compared with now. Number of regional plans implemented.	QDHLGP	QDEH QDPI

5 YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
5.7 To have coordinated planning between all stakeholders.	5.7.1 Educate user groups and agencies about the objectives of this Plan.	Compatibility of plans with World Heritage Area Strategic Plan.	GBRMPA	All stakeholders
	5.7.2 Stimulate and encourage local interest and user groups to prepare their own strategic plans by providing guidelines and assistance.		GBRMPA	All stakeholders
	5.7.3 Involve user groups in the implementation, review and evaluation of this Plan.		GBRMPA	All stakeholders
5.8 To encourage relevant stakeholder organisations	5.8.1 Guide relevant stakeholder organisations on how to translate this Plan into their	Compatibility of plans with World Heritage Area Strategic Plan.	GBRMPA	All agencies
to incorporate relevant objectives and strategies from this Plan into their own corporate,	corporate plans.	Number of stakeholder organisations with corporate/strategic		
management or business plans.	Involve these stakeholder organisations in the implementation, review and evaluation of this Plan.	plans.		
	5.8.3 Conduct a major review of this Plan in 1999-2000.			

6 - RECOGNITION OF ABORIGINAL AND TORRES STRAIT ISLANDER INTERESTS

25 YEAR OBJECTIVE

To have a community which recognises the interests of Aboriginals and Torres Strait Islanders so that they can pursue their own lifestyle and culture, and exercise responsibility for issues, areas of land and sea, and resources relevant to their heritage within the bounds of ecologically sustainable use and consistent with our obligations under the World Heritage Convention and other Commonwealth and State laws.

5 YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
5.1 To ensure that the interests of Aboriginals and Torres Strait Islanders are reflected in the management of the Area.	6.1.1 Develop effective participation processes and structures in conjunction with Aboriginals and Torres Strait Islanders.	Level of participation of Aborigines and Torres Strait Islanders in relevant management processes and structure.	GBRMPA QDFSAIA QDEH	QDFSAIA ACC ICC QDPI
	6.1.2 Cooperatively develop guidelines for stakeholder agencies and organisations for culturally-appropriate interaction with Aboriginals and Torres Strait Islanders.	Number of relevant Resource Management Plans which take account of Aborigines and Torres Strait Islanders use. Number of Management	ACC ICC QDFSAIA	A&TSI Management agencies
	6.1.3 Ensure negotiation occurs on all aspects of management that will particularly affect the rights or interests of Aboriginal and Torres Strait Islander people.	Plans prepared by Aborigines and Torres Strait Islander groups for resources used in the Area. Ecological sustainability	GBRMPA QDEH	A&TSI Management agencies
	6.1.4 Ensure that use by Aboriginals and Torres Strait Islanders is taken into account in the development of <i>resource</i> management plans.	of the traditional use of resources.	GBRMPA QDEH	A&TSI Management agencies
	Where plans are appropriate, Aboriginals and Torres Strait Islanders to develop, with stakeholder agencies and organisations, management plans to ensure that their traditional use of resources is ecologically sustainable.		GBRMPA A&TSI QDEH	Management organisations
	6.1.6 Provide opportunity for Aboriginals and Torres Strait Islanders for membership on and full involvement in management boards and advisory committees.		QDEH GBRMPA	All stakeholders
	6.1.7 Develop and implement employment and training programs in <i>stakeholder</i> organisations for Aboriginals and Torres Strait Islanders.		QDEH GBRMPA	All stakeholders

YEAR OBJECTIVES	STRATEGIES	INDICATORS	LEAD AGENCY	KEY PLAYERS
	6.1.8 Consider the implications of relevant legislation for native title.		QDEH GBRMPA	Management organisation s
To inform the general	6.2.1 Develop educational and interpretive materials and programs, in conjunction with Aboriginals and Torres Strait Islanders.	Increased community knowledge of Aboriginal and Torres Strait Islander relationships to Great Barrier Reef World Heritage Area.	GBRMPA QDEH	QDFSAIA QDEH A&TSI Management organisations
	6.2.2 Incorporate information about Aboriginals and Torres Strait Islanders in education curricula and interpretive programs.	Community acceptance of special management arrangements for Aboriginal and Torres Strait Island people.	QDEH GBRMPA Education Dept	Management organisations
6.3 To develop a culturally- appropriate information program for Aboriginals and Torres Strait Islanders, regarding the Area and its management.	6.3.1 Produce culturally-appropriate material. 6.3.2 Disseminate information in a culturally-appropriate manner.	Increased knowledge of management issues. Increased participation in consultation process.	GBRMPA GBRMPA QDEH	All organisations with education/ extension program
6.4 To establish cooperative management arrangements between Aboriginals and Torres Strait Islanders and stakeholder agencies in the Area.	6.4.1 Establish a legislative basis for cooperative management arrangements. 6.4.2 Establish cooperative management arrangements for specific areas.	Number of agreements and cooperatively managed areas. Satisfaction of Aboriginal and Torres Strait Islander people with cooperative management arrangements.	GBRMPA QDEH GBRMPA QDEH	QDEH QDFSAIA QDPI A&TSI QDFSAIA A&TSI Appropriate organisation to suit specific area
	6.4.3 Provide for Aboriginal and Torres Strait Islander representation on management boards and advisory committees.	Satisfaction of management agencies with cooperative management arrangements.	GBRMPA QDEH	QDEH QDFSAIA QDPI
6.5 To ensure that projects related to the social, cultural and economic interests of Aboriginals and Torres Strait Islanders are included in research and monitoring programs. (see Research and Monitoring 4.10)		Number of research programs endorsed through consultation mechanism. Number of Aboriginal and Torres Strait Islande people involved in research.	GBRMPA QDEH er GBRMPA QDEH	QDFSALA QDEH QDPI QDEH QDFSALA QDPI

7 - MANAGEMENT PROCESSES

25 YEAR OBJECTIVE

To have simple, pro-active and coordinated management processes which lead to appropriate, collaborative and timely decisions by governments, groups and individuals.

YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
7.1 To have adequate funds available for implementing this Strategic Plan.	7.1.1 Develop a comprehensive strategy for long-term funding from a range of sources including:	Number of projects not proceeding due to lack of funds.	GBRMPA QDEH	All stakeholders
	 local, state and Commonwealth governments international community general community private enterprise other stakeholders. 			
	7.1.2 Establish a Great Barrier Reef World Heritage Area Foundation to manage funds raised and received from a variety of sources.		GBRMPA	All stakeholders
consure ongoing and neaningful consultation petween all stakeholders.	7.2.1 Establish consultation mechanisms proposed in this Plan.	Cost of dispute resolution. Time spent in disputes.	GBRMPA	All stakeholders
	7.2.2 Undertake additional consultation with relevant stakeholders when significant changes are made to draft proposals after public comment.	Number of disputes.		
provide interested arties with access to non-confidential information relevant to their needs.	7.3.1 Establish agreements and mechanisms to ensure exchange of data between organisations and stakeholders.	Time spent to get data. \\ Cost of accessing data. \\	GBRMPA	All stakeholders
	7.3.2 Establish publicly accessible information sources and databases.		GBRMPA	All stakeholders

5 YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
7.4 To resolve disputes quickly and inexpensively.	7.4.1 Identify and, where appropriate establish alternative dispute resolution procedures, including non-legal local dispute resolution and specialist technical panels.	Cost of dispute ? resolution. Time spent in disputes. Number of disputes.	S AGENCY GBRMPA isputes. utes. PETD	Relevant stakeholders
	7.4.2 Review the feasibility of ensuring the availability of third party standing rights in relation to Queensland Government decisions affecting the Great Barrier Reef World Heritage Area.		PETD	Relevant stakeholders
7.5 To enforce management legislation pertaining to the Area efficiently and	7.5.1 Ensure legislation minimises the cost of enforcement while providing sufficient deterrents.	Ratio of convictions to total use.	QDEH	
effectively.	7.5.2 Encourage the adoption of memoranda of understanding and voluntary codes of practice by appropriate agencies and user groups, as an adjunct or alternative, to legislation.		GBRMPA QDEH	Tourism Fisheries QDEH PETD

8 - LEGISLATION

25 YEAR OBJECTIVE

To provide complementary, simple and effective legislation at all levels of government that facilitates effective implementation of the Strategic Plan and integrated management of the Great Barrier Reef World Heritage Area in accord with World Heritage obligations.

5 YEAR OBJECTIVES	STRATEGIES	PERFORMANCE INDICATORS	LEAD AGENCY	KEY PLAYERS
8.1 To have the required streamlined and complementary legislation in place including legislation that	8.1.1 Review relevant local, state and federal legislation to identify inadequacies, unnecessary duplication and anomalies.	Percentage change of unnecessary duplications, anomalies, omissions in State/ Federal legislation.	GBRMPA PETD	Any Dept with legislation relating to WHA
acknowledges Australia's obligations under the World Heritage Convention.	8.1.2 Provide for public participation in the preparation of new and amended legislation.	Percentage successful prosecutions. Perception of actual achievement versus intention.	GBRMPA PETD	Any Dept with legislation relating to WHA
	8.1.3 Amend existing legislation or enact new legislation to resolve problems identified in the review.	Degree to which / legislation acknowledges World Heritage Area obligations.	GBRMPA PETD	Any Dept with legislation relating to WHA
8.2 To establish the most appropriate boundaries for the Area.	8.2.1 Identify issues in relation to boundaries.	Agreed boundary position. Number of approvals required for a proposal.	GBRMPA	All management agencies & users
	8.2.2 Provide for public participation in the consideration of appropriate boundaries.		GBRMPA	All management agencies & users
	8.2.3 Determine the preferred boundaries.			
8.3 To resolve the legislative ue regarding nodification by reclamation of Great Barrier Reef Marine Park boundaries.	8.3.1 Great Barrier Reef Marine Park Authority, Queensland Department of Environment and Heritage and other agencies responsible negotiate to resolve the legislative issue.	Agreed resolution achieved; issue of the GBRMC agenda	GBRMPA QDEH	PETD PM&C DEST