Proposed Walpole-Nornalup Inlets Marine Conservation Reserve

Focus Group Workshop 3

Walpole Country Club

Walpole

28 April 2004

Summary of Focus Group outputs

Members of the proposed Walpole-Nornalup inlets marine conservation reserve Focus Group are:

Robin Adair*, David Anning* (Timber Communities Australia), Vaughan Bellanger, Murray Brown, Wayne Brown, Rick Chaucer, Frank Cooper* (Walpole Yacht Club), Wayne Crombie-Wilson, Wayne Dumbrell, Tony Fitzpatrick* (representing Geoffrey Findlay, Department for Planning and Infrastructure), Derren Foster* (Walpole Tourist Bureau), Nigel Fry*, Terry Fuller (Australian Anglers Association), Mark Halse*, Merv Hull, Steve Hunter, Eddie Liddelow*, Ernest Love, Paul Minchin*, Ross Muir*, Barry Nockolds, Kate O'Brien*, Ian Payton*, Louise Pickett*, Mark Pagano* (Recfishwest), Mick Sawyer, Phil Shaw (Department of Fisheries), John Stockley, David Tapley*, Gary Tiszavolgyi, Malcolm Vigus, Mark Virgo* (District Senior Ranger, CALM), Percy Vlietman, Brett Ward* (Department of Environment), David Warnock* (Walpole Nornalup and Districts Community Development Group), Wayne Webb.

Representative for the Great Southern Recreational Fishing Advisory Committee (to be advised).

(* denotes those present at Workshop 3. Apologies were received from Vaughan Bellanger, Wayne Crombie-Wilson, Terry Fuller, Steve Hunter and Phil Shaw).

Alan Kendrick (Planning Officer for the proposed Walpole-Nornalup inlets marine conservation reserve, CALM).

Also in attendance were:

- Angus Horwood (Marine Parks and Reserves Authority).
- Peter Bidwell (Frankland District Manager, CALM).
- Andrew Hill (Senior Marine Planning Officer, CALM).
- Tammie Reid (Facilitator, CALM).

Agenda for Workshop three

1. Values tables.
    i. Current status, potential and existing uses and/or pressures, management objectives and targets for ecological values.
    ii. Requirements and management objectives for social values.
2. Generic management strategies for ecological and social values.
3. Preliminary discussion on zoning.
4. Preliminary discussion on boundary.

1. Values tables.

Every recent marine conservation reserve management plan contains a set of tables outlining management objectives, strategies, management targets and performance measures for each value. This format, which is based on principles outlined in the report *Best Practise in Performance Reporting in Natural Resource Management* (ANZECC 1997), has been adopted by the Marine Parks and Reserves Authority to facilitate improved conservation and management outcomes, and provide a more objective and effective approach to auditing CALM management.

(i) Current status, potential and existing uses and/or pressures, management objectives and targets for ecological values.

During workshop three, the following information was generated for each ecological value:

Status	A generalised summary of the condition of the value. Is it, for example, pristine, largely undisturbed, degraded, threatened and/or poorly understood?
Existing and potential uses or pressures	• Many existing and potential uses and threats were identified during workshops one and two. • Which pressures could or do act on this particular value? • In considering the significance of threats, the following aspects should be considered: o the **temporal** scale; o the **spatial** scale; o the **trophic** level; o the **probability or frequency** of occurrence; and o how **manageable** are the consequences?
Current major pressure/s	• Does one or more significant threat **currently** act on the value?
Management objectives	• Identify **what** the primary aims of management are, and reflect the statutory responsibilities of the CALM Act. • Where significant pressure on an ecological value has been identified, the management objective addresses that specific pressure. • When there is not an obvious existing pressure or threat, the management objective provides broader direction to management in relation to protecting the value from the most likely future threats.
Management targets	• Represent the **end points** of management. • Targets should be measurable, time bound and expressed spatially. • Ecological targets will be set as either the 'natural state' or some acceptable departure from the 'natural state'. • **Short-term targets** provide a benchmark for management to achieve within a specified time period, and are usually a step to achieving the long-term target. • **Long-term targets** provide a specific benchmark to assess the success or otherwise of management actions within the life of the management plan.

*Focus group members were asked to work in small groups to develop these criteria for each of the ten **ecological values**. The contributions of several focus group members, who began compiling this information several weeks prior to workshop three, assisted this task.*

***The tables are attached to the end of this document**. Notes at the end of each table are points relevant to that value, which were raised by focus group members during the workshop.*

(ii) Requirements and management objectives for social values.

The following information was collected for each social value:

Requirements	What is needed to sustainably maintain the value?
Management objectives	• Maintain the natural values that are required for this social value. • Ensure the value is managed in a manner that is consistent with the ecological and other social values of the proposed reserve.

*Focus group members were asked to work in small groups to develop these criteria for each **social value**.*

***The tables are attached to the end of this document.** Notes at the end of each table are points relevant to that value, which were raised by focus group members during the workshop.*

2. Generic management strategies for ecological and social values.

Management strategies provide specific direction on how the management objectives for each ecological and social value are to be achieved. To achieve this, one or more of the following seven generic management strategy types are employed:

- Development of an **Administrative Framework** that comprises the reserve type and class, boundaries, zoning and human, financial and infrastructure resources.
- **Education and Interpretation** that increases awareness and understanding of the ecological and social values of the reserve.
- **Surveillance and Enforcement** to minimise or prevent illegal and/or inappropriate activities.
- **Research** to increase knowledge and provide 'natural' benchmark data to assess monitoring programs.
- **Monitoring** to enable the early detection of undesirable changes to ecological and social values.
- Maximising **Public Participation,** such as the formation of a community-based reserve management group and public involvement in education, interpretation and monitoring.
- **Direct Management Intervention** to, for example, rehabilitate degraded areas and build visitor facilities.

*Focus Group members were asked to list in descending order of importance (*ie *1=the most important strategy) the generic management strategies that would be most relevant to each ecological and social value. Not all strategies had to be ranked for each value.*

Summary of generic management strategies for ecological values.

Marked in descending order of importance (*ie* 1=perceived to be the most important generic management strategy).

	Generic Management Strategies						
Ecological Values	Admin. (*incl* zoning)	Education & interpret.	Surveillance & enforcement	Research	Monitoring	Public participation	Direct management intervention
Geomorphology	4	3	3	**2**	**2**	3	**1**
Water quality		**2**	4	3	**1**		
Sediment quality	3	**2**	3	**1**	**1**	**2**	3
Sandy beaches		**1**		**2**			
Shoreline vegetation	**1**	3		**2**			**1**
Macroalgae & seagrass	4	3		**1**	**2**		
Invertebrates	3	4	5	**1**	**2**	6	
Bony fishes	**1***	5	**2**	3	3	6	7
Elasmobranches (sharks & rays)		3	4	**1**	**1**		5
Waterbirds	**2****	**1**	3		**2**		

Notes:
*the application of fisheries regulations.
**Possible closures during waterbird breeding seasons.

Summary of generic management strategies for social values.

Marked in descending order of importance (*ie* 1=perceived to be the most important generic management strategy).

	Generic Management Strategies						
Social Values	Admin. (*incl* zoning)	Education & interpret.	Surveillance & enforcement	Research	Monitoring	Public participation	Direct management intervention
Recreational fishing	6	4	**1**	**2**	3	5	7
Boating	**1**	3	**2**	7	6	4	5
Nature-based tourism	**1**	**2**		4	3		
Aesthetic values	**2**	**1**					3
Community ownership	3	**1**				**2**	
Cultural & historical values	4	**2**		**1**		3	
Education	**2**					**1**	3
Scientific research	**1**		3			**2**	

Points raised by the generic management strategy tables:

- High importance was placed on the role of **research and monitoring** in the management of most ecological values. This suggests that, while most of the ecological values are currently perceived to in relatively good condition, the knowledge of most values needs to be increased.
- **Education and interpretation** was considered to be most important in the management of water and sediment quality, sandy beaches and waterbirds.
- The administration of fisheries regulations (*ie* **Administration**) and **surveillance and enforcement**, followed by **research and monitoring**, were perceived to be of highest importance to manage bony fishes.
- **Direct management intervention** is most urgently required to address shoreline erosion and the degradation of shoreline vegetation.
- **Administration (incl. Zoning)** and **Education and interpretation** were perceived to be the most important generic strategies for the management of social values.
- **Surveillance and enforcement** were considered to be important in the management of recreational fishing and boating.

3. Preliminary discussion on zoning.

During workshop two, focus group members made a preliminary decision that the proposed Walpole-Nornalup inlets marine conservation reserve be a marine park. Marine parks must have a zoning scheme, which is a flexible management tool that can:

- separate potentially conflicting uses;
- provide for specific activities (*eg* commercial, recreation and scientific study); and
- protect representative areas.

If the proposed reserve becomes a marine park, it must be zoned using any one or combination of general use, special purpose, recreation and/or sanctuary zones.

Activities that can be permitted in different types of Marine Park zones

	Marine Park			
	General use zone	Special purpose zone	Recreation zone	Sanctuary zone
Petroleum exploration and production				
Mining				
Commercial fishing				
Aquaculture				
Pearling				
Recreational fishing				
Recreation and tourism				

Key: Can be permitted | not permitted by the CALM Act

Zoning for marine parks is determined in accordance with the specific management requirements of each reserve. Hence, not all of the management zone types need to be present in each marine park. For example, while all four management zone types are present in the Jurien Bay Marine Park, the much smaller Swan Estuary Marine Park comprises only special purpose zones for the protection of seagrass and waterbird habitats.

Factors to consider in relation to zoning of the proposed Walpole-Nornalup inlets marine conservation reserve.

When the focus group previously developed generic management strategies (see Section 2), spatial zoning was not perceived to be a particularly relevant and appropriate strategy to manage the ecological and social values of the proposed marine conservation reserve.

Hence, it is suggested that zoning for the proposed marine conservation reserve should, in general, reflect the primary activities that are carried out in the area, which are tourism and recreation. Future perceptions of the inlets with regard to possible commercial extractive activities and aquaculture should also guide zoning decisions. Other factors that may influence a zoning scheme for the inlets may include:

- the relatively small size of the inlet system (*ca* 1400 ha);
- physical conditions are typically estuarine and, hence, are naturally variable (generally on a seasonal basis);
- many species that utilise the inlets are opportunistic (*ie* marine species that colonise the inlets when conditions are appropriate); and
- mobile fauna, such as fish, may move between the rivers, inlets and ocean depending on environmental conditions.

The focus group is asked to consider these issues, and will address zoning for the proposed marine conservation reserve in detail during workshop four. The following questions that relate to zoning are provided for consideration prior to the next workshop:

- what zoning would reflect the activities that are considered acceptable in the inlets, and would be compatible with community perceptions of future use;
- are there any components of the inlet system that require special protection that could be provided by zoning?; and
- is zoning necessary to assess human impacts on the inlet system?

4. Preliminary discussion on boundary.

General principles with regard to boundary delineation.

The following general principles apply to the creation of marine conservation reserve boundaries:

- reserve boundaries should be practical and effective for operational management;
- areas of high biological diversity and ecological, physical, cultural and social significance should be within the boundaries;
- account must be made for planned or existing infrastructure;
- boundaries should be unambiguous by aligning them with fixed natural or structural terrestrial features where possible and/or with lines of latitude and longitude where possible (*ie* north-south or east-west); and
- specific consideration should be given to including areas that:

- contribute to the maintenance of essential ecological processes (*eg* are a source of larvae or are major areas of primary production);
- contribute to ecological integrity (*ie* the degree to which the area, either by itself or in association with other protected areas, encompasses a complete ecosystem);
- preserve genetic diversity (*ie* is diverse or abundant in species terms);
- include all major habitats;
- contain habitat for rare or endangered species;
- contain nursery areas;
- contain feeding or breeding areas;
- contain rare or unique habitat for any species;
- are relatively unaltered (or natural) or have not been subjected to significant human-induced change; and
- are important for scientific research and monitoring.

Boundary issues in relation to the proposed Walpole-Nornalup inlets marine conservation reserve.

The study area for the proposed Walpole-Nornalup inlets marine conservation reserve comprises the Walpole and Nornalup inlets and the tidal parts of the Frankland, Deep and Walpole rivers. While this area does not necessarily represent the boundaries of the proposed reserve, the reserve boundaries should fall within this study area.

As this proposal seeks to reserve a discrete estuarine system, the inlet and river shorelines represent a logical boundary of most of the proposed reserve. An exception to this occurs at the inlet mouth, where no obvious boundary delineation currently exists. Marine conservation reserve boundaries are commonly designated to mean high water mark to include inter-tidal habitats and communities.

The Frankland and Deep rivers are tidal for *ca* 12 and 6 km, respectively, while the Walpole River is tidal for considerably less distance. The ecological importance of these tidal areas is highlighted by their importance in the life cycles of species such as black bream and the pouched lamprey.

Sites of existing and possible future infrastructure (*ie* marinas, major jetties *etc*) have, in the past, been excluded from within the boundary of some marine conservation reserves. In some cases, this assumes that a certain level of disturbance will be necessary and exclusion may simplify management and ongoing maintenance and improvement of facilities.

Numerous options are possible in delineating a boundary for the proposed Walpole-Nornalup inlets marine conservation reserve, particularly in relation to the above issues.

Focus group members were asked to present their views on a variety of issues relating to the possible boundary of the proposed Walpole-Nornalup inlets marine conservation reserve. Responses to each issue were recorded on a gradient of agreement with five options ranging from endorsement to veto. Members were encouraged to provide comments, which are included in the following sections. The focus group is asked to consider and discuss these responses and ideas, and will consider a boundary for the proposed marine conservation reserve in detail during workshop four.

What is your thinking on these boundary issues?

	Endorse	Agree with reservation	Mixed feelings	Don't like, but wont block	Veto
Should the proposed reserve boundary follow the inlet shore at mean high water level?	••••• ••••• ••••				
Should the tidal reaches of the rivers be included within the reserve boundary?	••••• ••••• •				
The Frankland River (ca 12 km)	••••• ••••• •		•		
The Deep River (ca 6 km)	••••• ••••• •		•		
The Walpole River (ca 1 km)	••••• ••••• ••				
Should the Boronia Ave jetties, boat ramp and work area be excluded from the proposed reserve boundary?	••••• ••	•••		•	••
Should we seek to ensure continuous boundary links with the WWA/WNNP where possible?	••••• ••••• ••••				

Are there areas that the focus group believes should not be included within the proposed reserve boundary?

- Nothing additional.
- Town Jetty, Swarbrick jetty, Rest Point jetty
- Areas that are identified for being important for the growth of the townsite.
- None.
- None other than town jetty area.
- Commercial, recreational and fisherman's jetties.
- Jetties and boat ramps should be in the Marine Park and managed so that impacts can be controlled in the long-term.
- Coalmine beach boat ramp and possible new jetty there.
- None.
- Areas of existing development and of high public use – town, Rest Point, Coalmine Beach facilities. This acknowledges pre-existing social values and use.
- Swarbrick jetty, Rest Point jetty (redevelopment plans) and boat ramp. Leave Coalmine in the park, but rebuild jetty.
- East end of Coalmine Beach to allow for jetty and boat ramp.
- If the town jetty area is to be excluded, this exclusion should be as small as possible, not that whole arm of the inlet.
- Jetties along the Nornalup waterfront.

Where exactly should the proposed reserve boundary at the inlet mouth be aligned?

- Use Shire boundaries.
- Shire boundary? Provided it does not inhibit the salmon camp.
- To the ocean surf, a line along Bellanger Beach.
- 100 m radius out to sea (with pictorial signs).
- About 20 m out to sea at the edge of rocks on the left side.
- Shire boundary, with signs on the rocks.
- East side of the bar.
- North/south line.
- North/south across mouth: line between high point of dune near salmon camp (eg pt 34) to west point of rocks on south bank of inlet mouth.
- East side of the bar: a straight-line south from eastern side of sand bar.
- A line between the rocks on the south shore and the peak of lookout hill on the north shore.
- Ocean side, outside line of sandbank, where there is a change in water quality? Marked by a phantom line to the rocks.

Any further comments?

- What about the Walpole Yacht Club?
- Boundaries should go to known physical structures near the tidal reaches, such as highway bridges, Monastery Landing etc.
- Boundaries should go to tidal influence, which equates approximately to Monastery landing (Frankland River.), the swing bridge (Deep River.) and the SW Highway (Walpole River.).
- All the waterways are equally important and, as such, need to be included in the boundaries. The riverbank (the first metre in particular) is also important in providing a food source for a lot of species and should also be considered.
- There would appear to be no protection for commercial operators within the Act.

Draft ecological values tables (from Section 1)

Geomorphology: *A geologically complex lagoonal estuarine system comprising three significant rivers and two connected inlets that are permanently open to the sea.*
Current status Mostly undisturbed, apart from minor and localised disturbance created by boat channels, shoreline infrastructure and shoreline erosion.
Existing and potential uses and/or pressures • Installation of jetties and boat ramps. • Dredged boat channels. • Installation of markers and moorings. • Shoreline degradation. • Possible disturbance of natural erosion and sedimentation caused by exotic marrum grass.
Current major pressure/s • None currently known (?)
Management objective/s • Regularly monitor to assess the condition of undisturbed areas. • To increase knowledge of geomorphology processes in the proposed reserve to minimise long-term human impacts. • Appropriately rehabilitate areas of localised erosion.
Target/s (desired endpoint/s) • No significant change to the geomorphology of the inlets due to human impacts.
Notes: *None*

Sediment quality: *The diverse sediments of the proposed reserve reflect the recent geological history of the inlets.*
Current status • Areas of contamination, if present, are likely to be minor and localised. • There is a lack of detailed knowledge and regular monitoring.
Existing and potential uses and/or pressures • Accumulative contamination from townsites, recreation and/or tourist facilities (*eg* wastewater treatment plant, leach drains, refuse disposal sites, fertilisers, light industrial areas *etc*), • Contamination from boat engines, especially adjacent to launch facilities. • Accidental chemical spills.
Current major pressure/s • None currently known.
Management objective/s • To increase knowledge of sediment quality in the proposed reserve and monitor for human-induced impacts. • Identify possible contaminant ingress points into the inlet system and develop a strategy to cope with accidental spills.
Target/s (desired endpoint/s) • No significant change from background sediment quality as a result of human activity.
Notes: • *The Department of Environment has pollution control responsibilities.* • *FESA would be the response agency.* • *Who would be responsible to supply emergency response equipment and materials?*

Draft ecological values tables (from Section 1)

Water quality: *The waters of the proposed reserves are generally good and are essential to the maintenance of a healthy ecosystem.*

Current status

Generally good, minor elevated nutrient levels in the lower Frankland River. Possibly also relatively minor nutrient contamination from townsite, recreation and tourist facilities.

Existing and potential uses and/or pressures

- Accumulative nutrient and/or hydrocarbon contamination from townsites, recreation and/or tourist facilities (*eg* wastewater treatment plant, leach drains, refuse disposal sites, fertilisers, light industrial areas *etc*)
- Contamination from boat engines, especially adjacent to launch facilities.
- Water diversion (*eg* for irrigation and/or human consumption).
- Diversion of saline drainage channels into waterways.
- Agricultural chemical contamination.
- Accidental chemical spills.

Current major pressure/s

- None currently known.

Management objective/s

- To increase knowledge of the impacts of human use on water quality in and surrounding the proposed reserve.
- Identify possible contaminant ingress points into the inlet system and develop a strategy to cope with accidental spills.

Target/s (desired endpoint/s)

- No significant change from background water quality as a result of human activity.

Notes:

- *No current generation two-stroke motors to be used on the estuaries after the park has been proclaimed for 10 years? Recent fuel efficient and less oil polluting two-strokes would be acceptable.*

Sandy beaches: *Although outside the proposed marine conservation reserve boundary, sandy beaches of the inlet system are of high social and ecological importance to the estuarine system.*

Current status

- All inlet beaches fall into the WNNP
- Most inlet beaches have limited access and are undegraded.
- Coalmine beach is modified and heavily used, while sandy beach also has vehicle access.

Existing and potential uses and/or pressures

- People access.
- Vehicles on beaches.
- Litter.
- Exotic species.

Current major pressure/s

- People access

Management objective/s

- Facilitate integrated shoreline management.
- Manage people access and use to minimise disturbance.

Target/s (desired endpoint/s)

- No significant change to sandy beaches as a result of human activity.

Notes:

- *Higher human impacts occur at Coalmine Beach, Sandy Beach and Our Beach with little facilities for very small beach areas.*

Draft ecological values tables (from Section 1)

Shoreline vegetation: *Although not falling within the proposed reserve boundary, the high ecological significance of shoreline vegetation to the inlet system must be recognised.*
Current status • Most shoreline vegetation is in the WNNP or is Unallocated Crown Land or Crown Reserve vested in Local Government (*eg* the Walpole town foreshore). • Mostly intact, with localised clearing, weed infestations and degradation around townships and tourist infrastructure. • Overall composition and condition is not well documented.
Existing and potential uses and/or pressures • Erosion caused by boat wake. • Degradation caused by unmanaged shoreline access. • Water drainage. • Clearing. • Weeds.
Current major pressure/s • Erosion caused by boat wake. • Degradation caused by unmanaged shoreline access.
Management objective/s • Facilitate integrated shoreline management. • Monitor and increase knowledge of the impacts caused by boats and unmanaged shoreline access.
Target/s (desired endpoint/s) • No further degradation of shoreline vegetation caused by human impacts. • Improvements to degraded areas.
Notes: • *Walpole Yacht club jetty and boat ramp to be upgraded to relieve pressure on town jetty ramp.* • *No more boat ramps in Nornalup, we already have a crowding problem.*

Macroalgae and seagrass: *Sub-tidal macroalgae and seagrass communities, which are important primary producers and refuge areas for invertebrates and fishes.*
Current status • Most likely to currently approximate natural diversity and abundance, although there have been algal blooms in previous years.
Existing and potential uses and/or pressures • Eutrophication from proximate (*eg* townsite, recreation and/or tourist facilities) or distant (*eg* catchment) sources (there have been algal blooms and excessive growth of *Ruppia megacarpa*, especially in the Walpole Inlet). • Introduced species.
Current major pressure/s • None currently known.
Management objective/s • To gain an increased understanding of the natural dynamics of seagrass and macroalgae in the proposed reserve.
Target/s (desired endpoint/s) • No significant change in the abundance and diversity of seagrass and macroalgae in the proposed reserve due to human impacts.
Notes: • *None.*

Draft ecological values tables (from Section 1)

Invertebrates: *The inlets support a higher diversity of benthic invertebrates than most other south coast estuaries.*
Current status • Mostly undisturbed, although some species are targeted for fishing (*eg* crabs) or bait (*eg* cockles). • While concerns exist about the current rarity of some previously abundant fauna, such as cockles, mussels and oysters, the cause of this decline is not known. • The diversity, ecology and distribution of invertebrates in the proposed reserve are not well understood.
Existing and potential uses and/or pressures • Collection for bait and/or food. • Introduced species. • Aquaculture developments.
Current major pressure/s • None currently known.
Management objective/s • To increase our knowledge of the diversity, ecology and distributions of invertebrates in the proposed reserve. • To research and monitor the abundance and distribution of cockles, mussels and oysters to facilitate the sustainable management of these species in the proposed reserve.
Target/s (desired endpoint/s) • No further change in the abundance and diversity of invertebrates in the proposed reserve due to human impacts. • An understanding of the population dynamics and/or the effects of human impacts on apparently diminished invertebrate species.
Notes: • *None.*

Bony fishes: *Approximately 35 marine and estuarine bony fish species commonly inhabit the inlets and lower rivers.*
Current status • Anecdotal knowledge suggests that fish populations are stable, although they are not regularly monitored. • The ecology of many species is well understood, but the biology of relatively few has been studied in detail.
Existing and potential uses and/or pressures • Fishing. • Illegal fishing. • Introduced species. • Disease. • Habitat degradation. • Pollution.
Current major pressure/s • Fishing.
Management objective/s • Work with DoF to ensure effective management of fishing activity and prevent illegal fishing in the proposed reserve. • To increase knowledge of the ecology and biology of bony fishes in the proposed reserve.
Target/s (desired endpoint/s) • No significant loss of bony fish diversity or abundance as a result of human activity in the proposed reserve.
Notes: • *Fish bag limits need review with a view to reduce. Increased surveillance of bags and size, and regular creel surveys.*

Draft ecological values tables (from Section 1)

Elasmobranches (sharks and rays): *Unlike most south coast estuaries, the inlets support a variety of shark and ray species.*
Current status • Anecdotal knowledge suggests that populations of some species are stable, although none are regularly monitored. • The ecology of these species in the inlets is poorly understood.
Existing and potential uses and/or pressures • Fishing. • Illegal fishing. • Disease. • Habitat degradation. • Pollution. • Stingray tourism contact (including habituated feeding).
Current major pressure/s • None currently known, although stingray tourism contact is likely to increase.
Management objective/s • To increase knowledge of the ecology and biology of elasmobranches in the proposed reserve. • To protect stingrays subject to tourist interactions.
Target/s (desired endpoint/s) • No significant loss of elasmobranch diversity or abundance as a result of human activity in the proposed reserve.
Notes: *None.*

Waterbirds: *The varied habitats of the inlets, rivers and adjacent forest and coastal areas means that numerous inland and marine waterbird species utilize the inlets and lower rivers.*
Current status • Generally good.
Existing and potential uses and/or pressures • Disturbance by people, dogs, boats and vehicles, which occurs mostly in accessible places around the inlets. • Entanglement in litter.
Current major pressure/s • Disturbance.
Management objective/s • To minimise disturbance of waterbirds by people, dogs, boats and vehicles.
Target/s (desired endpoint/s) • No significant loss of waterbird diversity or abundance as a result of human activity in the proposed reserve.
Notes: • *Public wildlife feeding (occurs at Nornalup).* • *Tourists feeding birds.* • *May need to consider limiting houseboat mooring areas so that they don't negatively impact on bird activity/nesting areas.*

Draft social values tables (from Section 1)

Recreational fishing: *The inlets are a very popular destination for shore and boat-based recreational fishing for species such as black bream, King George whiting and blue-spot flathead.*
Requirements • Recognition of the importance of fishing as a major attraction to Walpole/Nornalup. • Sustainable maintenance of healthy fish fauna. • Good water quality. • Equity of access (boat and shore infrastructure)
Management objectives • Maintain the natural values of the proposed reserve that are important to recreational fishing. • Ensure that recreational fishing activity and infrastructure is managed in a manner consistent with maintaining the values of the proposed Marine Park.
Notes: *None.*

Boating: *The inlet system is a popular destination for a diverse range of boating activities.*
Requirements • Recognition of the importance of boating as a major attraction to Walpole/Nornalup. • Adequate regulation and enforcement of boating regulations. • Adequate infrastructure.
Management objectives • Maintain the natural values of the proposed reserve that are important to boating. • To ensure that boating activity and infrastructure is managed in a manner that is consistent with maintaining the values of the proposed reserve. • Investigate a strategy to separate incompatible boating activities.
Notes: • *Need to cater for paddlers differently than powerboats – if there are to be powerboat exclusion zones, don't exclude paddlers from these areas..*

Nature-based tourism: *The inlets are an important nature-base tourism destination for activities such as tours, houseboats, wildlife viewing, canoeing and exploring.*
Requirements • Nature/environment in good condition. • Access. • Identify and manage important sites. • Quiet. • Aesthetics. • Wildlife. • Infrastructure and facilities. • Access to fishing.
Management objectives • Maintain the natural values of the proposed reserve that are important to nature-based tourism. • Manage nature-based tourism in a manner that is consistent maintaining the values of the proposed reserve.
Notes: *None.*

Draft social values tables (from Section 1)

Aesthetic values (scenery, peace and quiet, wilderness): *The scenery of the inlet system is unique in WA, and the lack of development, particularly in the Nornalup Inlet and lower rivers, provides a strong sense of wilderness.*
Requirements • Maintain the tranquillity. • Quiet. • Visual values of inlets and the adjacent National Park. • Minimal shoreline development. • Maintain fauna with visual appeal. • No intrusive infrastructure.
Management objectives • To ensure that the aesthetic values of the proposed reserve are not degraded by human activities.
Notes: • *Minimise the use of signage (eg NP signs on beaches near Muir's landing at inlet mouth. Will spoil 'wilderness' experience of area.* • *Link with Local Government (Manjimup Shire) planning strategies to protect aesthetic values (eg like Denmark Shire has for Wilson Inlet).*

Local community ownership
Requirements • Maintain and enhance the communities' ownership of the inlets. • Ensure community assets are maintained and/or enhanced (*eg* Yacht club jetty). • Communication of readable scientific information to the community. • Increase public knowledge and awareness of the inlets. • Maintain community access to sites where possible.
Management objectives • To ensure that the local community participates in management of the proposed reserve.
Notes: *None.*

Indigenous and European cultural and historical significance: *The inlet system and surrounding lands have a rich indigenous and European heritage that exists as sites and stories.*
Requirements • Indigenous and European sites to be identified. • Indigenous and European sites to be protected. • Public awareness. • Identify and catalogue sites and stories. • Education and interpretation. • Maintain a connection with the history of the inlets and their uses.
Management objectives • To ensure that Indigenous and European culture and history associated with the proposed reserve is recognised, protected and promoted in a sensitive and sustainable manner.
Notes: • *Coalmine Beach Jetty to be replaced in the Marine Park.*

Draft social values tables (from Section 1)

Education: *The inlets comprise a variety of largely undegraded landscapes and biota as well as a rich Indigenous and European history that represents a diverse and accessible educational resource.*
Requirements • Results of research readily available to community in a form that is readily interpreted. • Education to be available in a wide range of formats (written, verbal, electronic) to local and wider community.
Management objectives • To promote and provide educational opportunities that are consistent with maintaining the values of the proposed reserve.
Notes: *None.*

Scientific research: *The largely undisturbed nature of the inlet system and variety of habitats and communities within the proposed reserve provide excellent opportunities for scientific research.*
Requirements • Provide access to the inlets for research and monitoring. • Supportive community. • Encourage community involvement. • Funding and resources. • Co-ordination of research. • Interpretation of results available in a form easily understood by community. • Identify research priorities (community). • Utilise results to improve management.
Management objectives • Promote and provide opportunities for ethical and sustainable research in the proposed reserve that enhances understanding of the functioning of the ecosystem and the short and long-term effects of human usage.
Notes: *None.*