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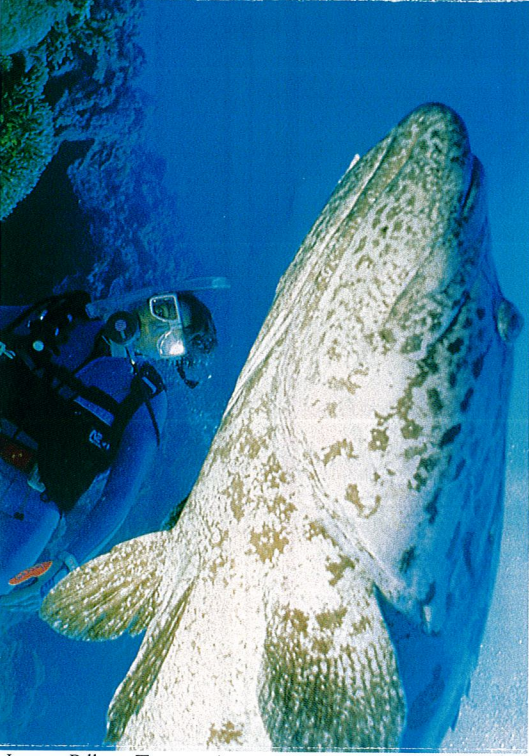


Image: Pilbara Tourism Association

Managing the marine environment

The State Government is committed to the conservation of the State's marine biodiversity and the sustainable use of our coastal resources. A major strategy to achieve these objectives is to establish a network of marine conservation reserves along our coast. The WA system of marine reserves is part of Australia's National Representative System of Marine Protected Areas.

activities in the region.

An archipelago of more than 250 low lying islands and islets in the Pilbara offshore marine bioregion, the Montebello/Barrow islands are an important marine conservation area, as well as one of the State's most productive areas for hydrocarbon production and pearl culture. Recreational and commercial fishing and an expanding nature-based tourism industry are also key activities in the region.

The reserves are part of a network of marine conservation reserves that protect the marine environments of the Pilbara and Ningaloo coasts.

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The Montebello/Barrow Islands marine conservation reserves are located between 60 and 100 km off the north-west coast of Western Australia, approximately 1600 km north of Perth. The Montebello Islands Marine Park includes the waters around the Montebello Islands while the Barrow Island Marine Park includes an area of high conservation value on the western side of Barrow Island. The Barrow Island Marine Management Area includes the remainder of the waters around Barrow Island as well as the waters around the Lowendal Islands.

Montebello/Barrow Islands Marine Conservation Reserves

The State Government has created a new marine park at the Montebello Islands, a new marine park at Barrow Island and a new marine management area at the Barrow and Lowendal Islands.

What are marine conservation reserves?

Marine conservation reserves (also known as marine protected areas or MPAs) are special areas of the ocean and estuaries that are established to provide increased legal protection for marine flora and fauna and their habitats, to promote wise use and enjoyment of these areas and enhanced management of commercial and recreational activities.

In some parts of Australia MPAs are areas where no fishing or collecting is permitted (i.e. no-take areas or marine sanctuaries). In other instances, governments have adopted a multiple-use approach that allows for a variety of uses, including fishing and tourism within reserves.

Most existing marine conservation reserves in WA,

Further information

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Cover main and inset (left) images: Pilbara Tourism Association

Below: Eva Boogaard/Lochman Transparencies

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How will the reserves affect where I can conduct my activities?

While many of the existing activities can continue, there are restrictions on activities in some zones (see the permitted use table on the back of this brochure). With respect to the major commercial and recreational activities in the area:

- access by boats is permitted throughout the marine parks and marine management area;
- recreational fishing is permitted in the recreation, general use and special purpose (pearling) zones of the marine park and all areas of the marine management area;
- commercial fishing is permitted in the general use zone of the marine park and in the unclassified areas of the marine management area;
- trolling (only) is permitted in the special purpose (benthic protection) zone of the marine park; and
- petroleum industry activities are permitted in general use zones of the marine park and throughout the marine management area subject to assessment by the Environmental Protection Authority.

Before engaging in recreational or commercial activities, users should refer to the permitted activities table and map in this brochure and check with the Department of Fisheries for fishing regulations that apply.

Other complementary ways of conserving and managing our marine environment include pollution control, environmental impact assessment of development proposals, fisheries management, wildlife protection, oil spill response capability and maritime safety regulations.

including the Montebello/Barrow Islands marine conservation reserves, are multiple use reserves that usually have a range of zone types, including sanctuary zones, within their boundaries.

to be separated.

Montebello Islands Marine Park and Barrow Island Marine Park zones

The Montebello Islands Marine Park has sanctuary, recreational, special purpose (benthic protection), special purpose (pearling) and general use zones. The Barrow Island Marine Park is all sanctuary zone.

Sanctuary zones are 'look but don't take' areas managed for nature conservation and low-impact recreation and tourism. Sanctuary zones are important for research and monitoring programs as they provide relatively 'undisturbed' sites for comparisons with other areas of the marine park. Sanctuary zones are also important as refuge areas for marine life as well as helping to replenish adjacent areas.

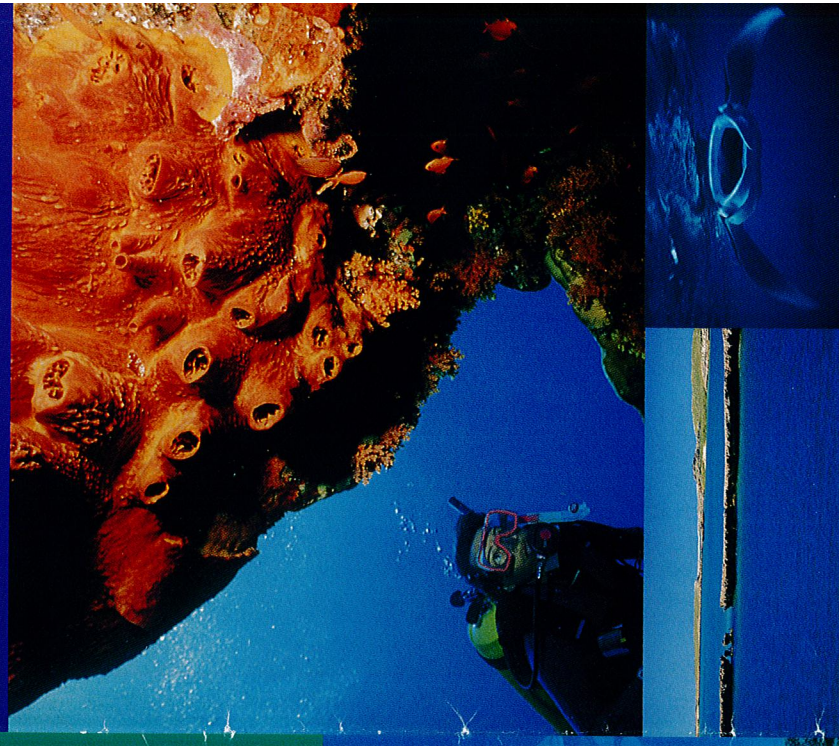
Recreation zones are managed for nature conservation and recreation, including recreational fishing, where this is comparable with conservation values.

Special purpose (benthic protection) zones provide protection for benthic communities and allow trolling only.

Special purpose (pearling) zones are managed for the priority use of pearling. Other permitted uses in the marine park that are compatible with pearling are also allowed in these zones.

General-use zones are managed for nature conservation while allowing for sustainable commercial and recreational activities.

YOUR GUIDE TO MONTEBELLO / Barrow Islands Marine Conservation Reserves



Entrusted to the Marine Parks and Reserves Authority and managed by the Department of Conservation and Land Management, in partnership with other Government departments and local communities, on behalf of all Australians



The Barrow Island Marine Management Area

The Barrow Island Marine Management Area has a classified area to protect benthic fauna and seabirds in Bandicoot Bay. The unclassified area of the marine management area is similar to general use zones in marine parks. Sustainable commercial and recreational activities are permitted where these are compatible with the values of the reserves.

PROTECTING THE KEY VALUES Ecological values

The Montebello/Barrow islands marine environment's diverse mix of habitats and oceanographic conditions have created an extremely rich marine biodiversity. The convoluted coastlines of these low lying islands are characterised by extensive high energy coral reefs, similar to Ningaloo Reef, sheltered lagoons, channels, intertidal embayments, extensive sandy intertidal areas, shallow limestone platforms, barrier and fringing coral reefs and rocky intertidal shorelines.

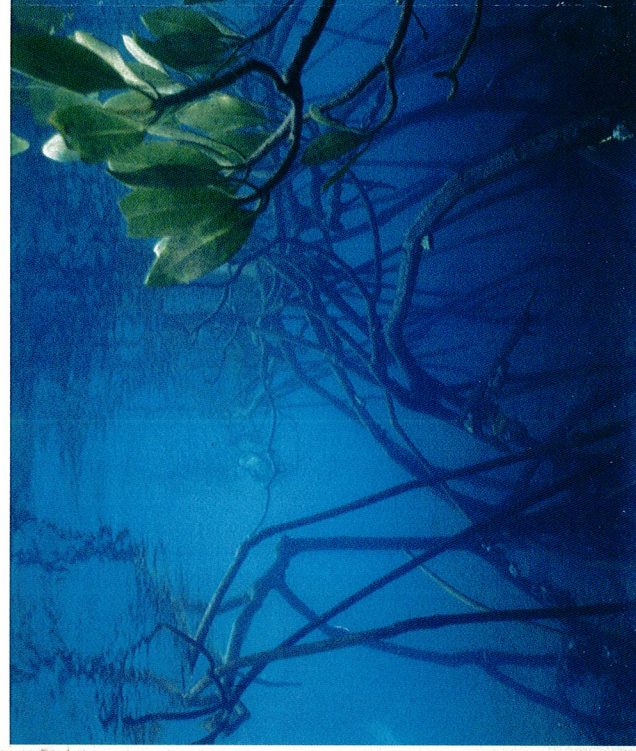
Limestone reef areas have extensive meadows of macroalgae such as *Sargassum* which, along with the extensive coral reefs, are the area's most important primary producers. Neighbouring fringing and patch coral reefs are home to more than 150 species of coral and a wealth of reef fish typical of the Indo-Pacific fauna and the coral reefs of the Pilbara and Ningaloo coasts. The area's productivity reflects the strong interconnectivity of these habitats with juvenile and adult fish using different habitats at different times in their lives.

At least 10 whale and dolphin species have been recorded in the area with humpback whales consistently resting in the reserves during their annual migration along WA's coastline. Dugong forage among the seagrasses and algae, and the islands are important rookeries for at least 15 seabird species along with WA's largest breeding colony of roseate terns.

WA is home to six species of marine turtle, five of which are found in the Montebello/Barrow Island marine conservation reserves. WA's hawksbill population is the largest remaining in the Indian Ocean and these turtles regularly nest on the beaches of the reserves. Green and flatback turtles also regularly nest in the reserves with loggerhead nestings more occasionally recorded.

Leatherbacks are less frequent visitors to the reserves but the importance of the area to turtle populations in general is reflected in the large turtle aggregations that regularly occur. Turtles are specially protected under the *Wildlife Conservation Act 1950* in recognition of their threatened status internationally.

The mangroves of the Montebello/Barrow Islands marine conservation reserves are highly unusual in that lagoonal mangroves are seldom found on oceanic islands. Named to reflect their diverse colour and form, the six species of mangroves in the reserves include the ribbed-fruit orange mangrove and the yellow-leaf spurred mangrove. Under-appreciated, these spectacular coastal forests are highly productive, supporting organisms adapted to this rich environment such as mud crabs, and providing valuable nursery areas for juvenile fishes and crustaceans.



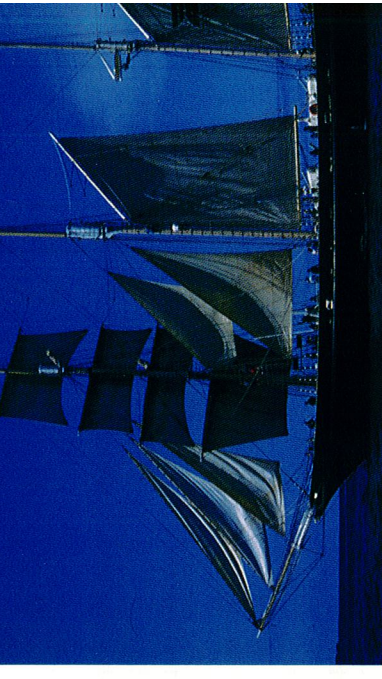
The Department of Conservation and Land Management (CALM) is the primary day-to-day manager of the marine reserves, in partnership with other State Government agencies, industry and major users of the area. The Department of Fisheries will continue to manage commercial and recreational fishing, pearling and aquaculture in the marine reserves in close cooperation with CALM. The detailed management arrangements for the marine reserves are outlined in the Management Plan for the Montebello/Barrow Islands Marine Conservation Reserves.

The primary focus of management in the initial years will be the implementation of the new zoning scheme and the establishment of education, public participation, research and monitoring programs.

Education and public participation programs help to raise community awareness, understanding and support for the marine reserves and promote community cooperation and involvement in management.

Research programs aim to develop an understanding of the natural and social environment of the marine reserves, provide baseline information for monitoring programs and information to assist management.

Monitoring programs detect changes in the environment and provide the information to trigger management action before undesirable impacts occur.



Social and commercial values

The Montebello/Barrow islands area is commercially significant because it is the State's most productive petroleum area, with Barrow Island producing 34 per cent of the State's oil.

The warm pristine waters of the Montebello Islands Marine Park produce high quality pearls for which WA is well-recognised and sustain the commercial fishing of finfish, shark and *beche de mer* (edible sea cucumber).

The diversity of marine life supports an expanding nature-based tourism industry and recreational fishing. A growing number of charter boats take visitors to the Montebello Islands to participate in activities such as fishing, diving, wildlife viewing, island exploring and surfing. Excellent shore and boat based recreational fishing opportunities target a variety of pelagic and reef finfish, as well as crabs and other edible invertebrates.

Visitors are also attracted to the area for its spectacular seascapes, wilderness feeling and rich maritime heritage which includes exploration, whaling, turtle harvesting and cultured pearl farming.

Enjoyment of the marine parks and marine management area is likely to increase significantly during the next decade as the reputation of the Montebello and Barrow islands as a unique tourism and conservation experience grows. These values will need to be carefully managed.

What can you do to care for the Montebello Islands Marine Park, Barrow Island Marine Park and Barrow Islands Marine Management Area?

KNOW your reserves, the boundaries, the regulations, the zones and what you can do, and where.

UNDERSTAND how your activities may affect the marine reserves.

INVOLVE yourself and others in caring for the marine reserves:

- Take your litter home with you when you leave.
- Avoid disturbing or feeding marine wildlife such as birds or fish.
- Observe fishing restrictions, bag limits and size limits.
- Be active and take part in the Marine Community Monitoring Program (contact CALM for details).

The Community Monitoring Program

Your group can become actively involved in conserving the Montebello/Barrow Islands Marine Conservation Reserves by taking part in integrated programs to monitor and increase our understanding of the marine plants and animals on the seabed, fish species, and how the area is used.

The Management Advisory Committee

Industry, local users and the community will be able to contribute to the ongoing management of the marine reserves through the Management Advisory Committee that helps CALM to manage the marine reserves (contact CALM for details).

Remember if we all work together we can protect and enjoy this magnificent environment!

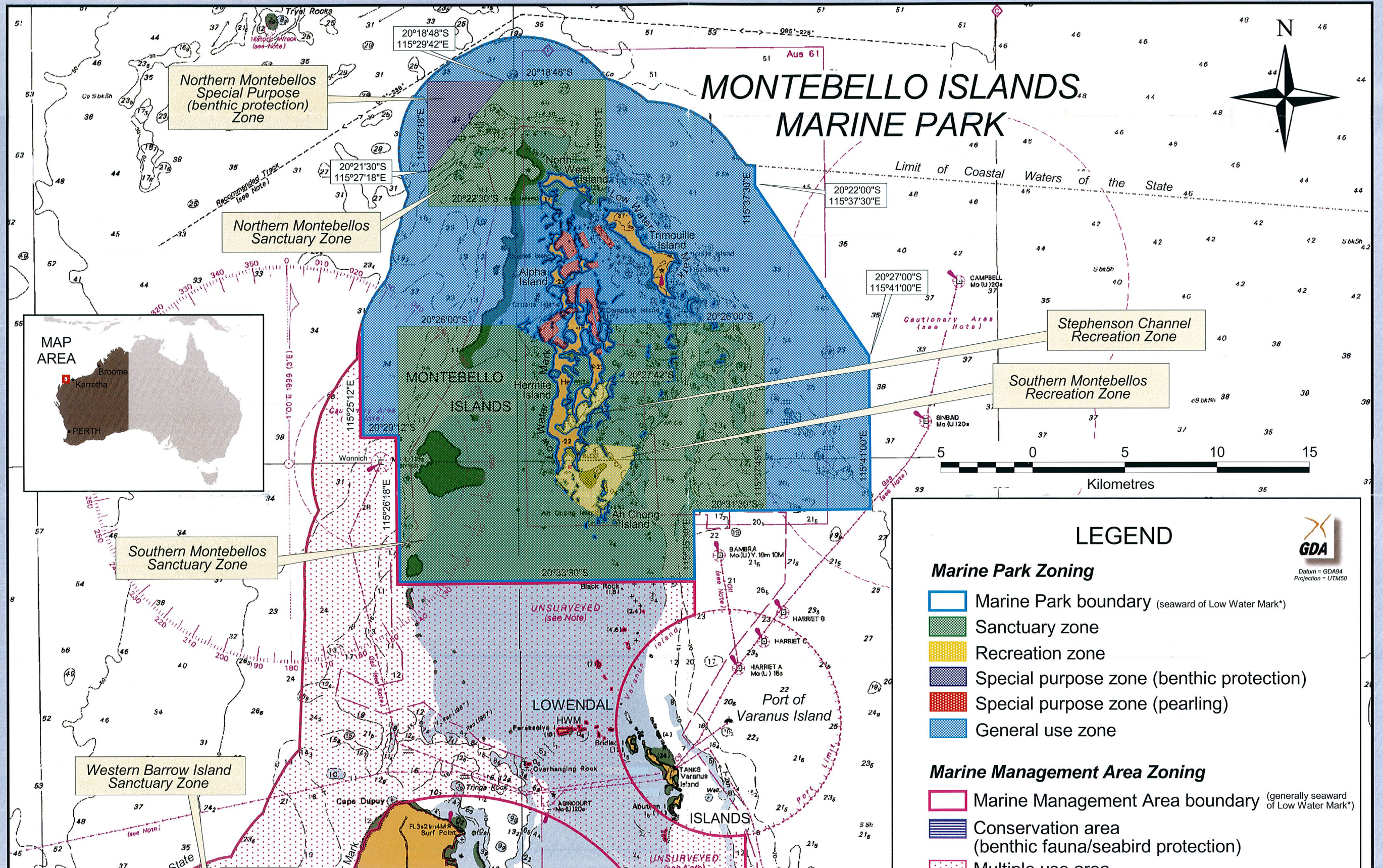
How will the Montebello/Barrow Islands Marine Conservation Reserves be managed?

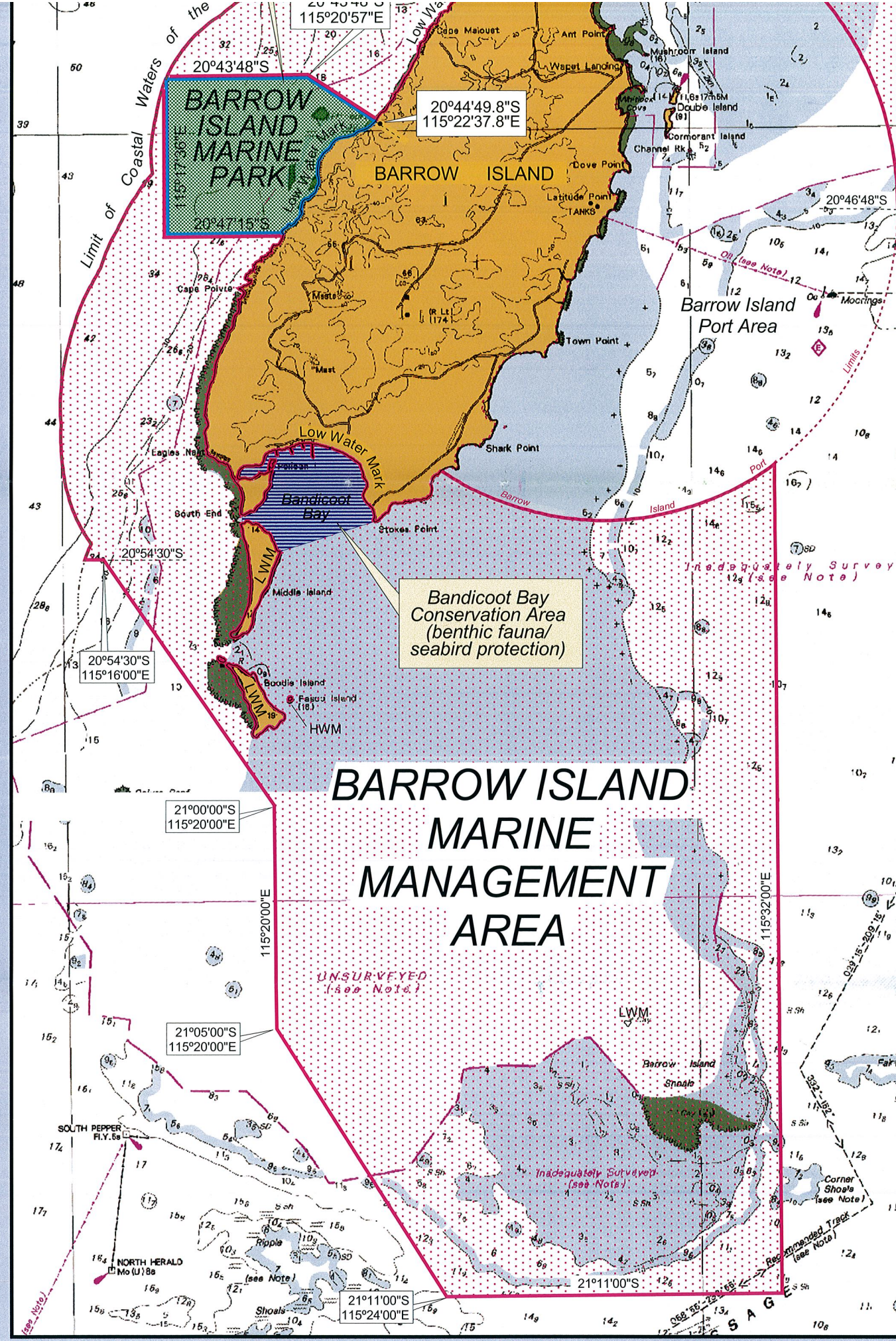
The Montebello/Barrow Islands marine conservation reserves are offshore and relatively remote.

Effective management of the marine parks and the marine management area depends on the support, cooperation and participation of the major users: the petroleum, pearling, commercial fishing and nature-based tourism sectors. Visitors also need to acknowledge, understand and support the objectives of the reserves. Local and State government organisations' activities inside and outside the reserves will be sympathetic to the purposes of the reserves.

The Montebello Islands Marine Park, Barrow Island Marine Park and Barrow Island Marine Management Area are vested (legally entrusted) to the Marine Parks and Reserves Authority, a community-based body established by the State Government to oversee the statewide system of marine conservation reserves.

ZONING SCHEME for the MONTEBELLO/BARROW ISLANDS MARINE CONSERVATION RESERVES





PERMITTED USES IN ZONES

Y = Yes N = No
 Assess = Proposal will be assessed by relevant agencies in accordance with standard procedures.

a Subject to the *Western Australian Marine Act 1982*.
 b Subject to the *Fish Resources Management Act 1994* and the *Pearling Act 1990*.
 c Subject to the *Conservation and Land Management Act 1984* and the *Wildlife Conservation Act 1950*.
 d Licence required from Dept of Conservation and Land Management and/or Dept of Fisheries and/or Dept of Industry and Resources and/or Dept of Environment/Environmental Protection Authority.
 e Activities permitted unless the activity is shown to be incompatible with the specified primary purpose of the zone.
 f Subject to the *Environmental Protection Act 1986*.
 g Boating and associated activities, and surface water sports may be restricted in specific areas where there is a clear need for such restrictions.
 h Charter vessel fishing is not permitted in the two recreation zones, however unguided recreational fishing by customers of charter operators is permitted in recreation zones.

ACTIVITY	MONTEBELLO ISLANDS MARINE PARK, BARROW ISLAND MARINE PARK					BARROW ISLAND MARINE MANAGEMENT AREA	
	Sanctuary Zone	Recreation Zone	Special Purpose (benthic protection) Zone	Special Purpose (pearling) Zone	General Use Zone	Conservation Area (benthic fauna/ seabird protection)	Unzoned areas
COMMERCIAL							
Pearling ^{b, d}	N	N	N	Assess ^e	Assess	N	Assess
Aquaculture ^{b, d}	N	N	N	Assess ^e	Assess	N	Assess
Commercial beche de mer fishing ^{b, d}	N	N	N	Y ^e	Y	N	Y
Commercial trap fishing ^{b, d}	N	N	N	N	Y	N	Y
Commercial long line ^{b, d}	N	N	N	N	Y	N	Y
Commercial beach seine ^{b, d}	N	N	N	N	Y	N	Y
Commercial wetlining ^{b, d}	N	N	Y ^g (trawling only)	N	Y	N	Y
Commercial prawn trawling ^{b, d}	N	N	N	N	N	N	Y
Commercial mud crabbing ^{b, d}	N	N	N	N	N	N	N
Commercial aquarium collecting ^{b, d}	N	N	N	Y ^e	Y	N	Y
Commercial specimen collecting ^{b, d}	N	N	N	Y ^e	Y	N	Y
Mineral and petroleum exploration (seismic) ^f	Assess	Assess	Assess	Assess ^e	Assess	Assess	Assess
Petroleum drilling and mineral development ^f	N	N	Assess	N	Assess	Assess	Assess
Charter vessels - fishing ^{b, d}	N	N ^h	Y ^g (trawling only)	Y ^e	Y	N	Y
Charter vessels - other ^{c, d}	Y	Y	Y	Y ^e	Y	Y	Y
RECREATIONAL							
Boating (motor and non-motorised) ^a	Y ^g	Y ^g	Y ^g	Y ^{e, g}	Y ^g	Y ^g	Y ^g
Surface water sports ^a	Y ^g	Y ^g	Y ^g	Y ^{e, g}	Y ^g	Y ^g	Y ^g
Recreational rock lobster fishing ^b	N	Y	N	Y ^e	Y	N	Y
Recreational line fishing ^b	N	Y	Y ^g (trawling only)	Y ^e	Y	Y	Y
Recreational netting ^b	N	N	N	N	Y	Y	Y
Spearfishing ^b	N	N	N	Y ^e	Y	N	Y
Recreational crabbing ^b	N	Y	N	Y ^e	Y	N	Y
Recreational aquarium & specimen collecting ^b	N	N	N	N	N	N	Y
Snorkelling and diving	Y	Y	Y	Y ^e	Y	Y	Y
Wildlife interaction ^c	Y	Y	Y	Y ^e	Y	Y	Y
Surfing	Y	Y	Y	Y	Y	Y	Y
OTHER							
Proposals for marine infrastructure (e.g. moorings) ^{a, d}	Assess	Assess	Assess	Assess ^e	Assess	Assess	Assess
Pipelines (including dredging for pipelines) ^f	N	N	Assess	N	Assess	Assess	Assess
Dredging and dredge spoil dumping for shipping activities	N	N	N	N	N	N	Assess
Research ^d	Y	Y	Y	Y ^e	Y	Y	Y
Military flying training in restricted airspace R852A & R852B (above 10,000 ft)	Y	Y	Y	Y	Y	Y	Y