IUCN Conservation Outlook Assessment 2014 **(archived)**
Finalised on 12 November 2014

Please note: this is an archived Conservation Outlook Assessment for Whale Sanctuary of El Vizcaíno. To access the most up-to-date Conservation Outlook Assessment for this site, please visit https://www.worldheritageoutlook.iucn.org.

Whale Sanctuary of El Vizcaíno

SITE INFORMATION

Country:
Mexico
Inscribed in: 1993
Criteria:
(x)

Site description:

Located in the central part of the peninsula of Baja California, the sanctuary contains some exceptionally interesting ecosystems. The coastal lagoons of Ojo de Liebre and San Ignacio are important reproduction and wintering sites for the grey whale, harbour seal, California sea lion, northern elephant-seal and blue whale. The lagoons are also home to four species of the endangered marine turtle. © UNESCO

SUMMARY

2014 Conservation Outlook

Good with some concerns

While all indicators of the current state of the property's biodiversity values point to a rating of "low concern" and "stable", the future projected impacts associated with the depletion of freshwater aquifers and climate change in all of its manifestations might be significant. At the same time, lesser levels of threat from agricultural and livestock development, over-fishing, waste disposal, and illegal hunting indicate that threats have been reduced considerably in the past decade, and the condition of conservation targets has improved. Potential threats from inappropriate tourism development, accidental release of brine into lagoons, and exploration and development of oil, gas, geothermal resources, and mining are potential need to be monitored closely.

Current state and trend of VALUES

Low Concern
Trend: Stable

From all indicators, the current state of world heritage values is of "low concern" and is "stable". The NAMPAN Scorecard rated water quality as being of "low concern", though human activities point to deterioration. Habitat quality is "good" and "stable". Biodiversity in general, and keystone and indicator species are rated as "low concern" and "improving". The status of harvested species, and species of common concern is rated as being of "high concern" but "stable". Monitoring of the populations of big horn sheep and grey whales also indicates that trends are positive.

Overall THREATS

High Threat

The greatest threats are from climate change and the depletion of freshwater aquifers. Agricultural and livestock development, over-fishing, waste disposal and

illegal hunting are also significant threats, while inappropriate tourism development, accidental release of brine into lagoons, and exploration and development of oil, gas, geothermal resources, and mining are potential threats that need to be actively monitored.

Overall PROTECTION and MANAGEMENT

Mostly Effective

Indicators of threat reduction and the condition of terrestrial and marine conservation targets indicate that threats have been reduced considerably in the past decade, and the condition of conservation targets has improved. The reserve is well integrated into the national system of protected areas and its management is also supported by various NGOs. There is however a serious concern about the level of available funding.

FULL ASSESSMENT

Description of values

Values

World Heritage values

► Habitats of endangered and endemic species

Criterion:(x)

The Whale Sanctuary of El Vizcaino contains the most important breeding grounds of the Eastern subpopulation of the North Pacific Grey Whale. Its protection is intricately linked with saving the species from extinction and recovery after near-collapse due to excessive commercial whaling. Many environmental factors, such as depth, temperature, nutrients, and salinity coincide in Ojo de Liebre and San Ignacio lagoons to make them ideal mating, breeding and calving grounds. The lagoons also provide valuable habitat for numerous other marine mammals, such as Bottlenose Dolphin, California Sea Lion and Harbor Seal. Four species of marine turtles have been recorded in the lagoons and adjacent coasts, the most important being the green and the loggerhead sea turtles. The shallow, well-protected lagoons with their mangrove stands are also highly productive nurseries for a diverse fish fauna and boast rich invertebrate fauna, and an impressive natural landscape and seascape. The surrounding wetlands attract an extraordinary diversity and abundance of resident and migratory bird species with several hundreds of thousands of wintering birds. The drier terrestrial areas belong to the Sonoran Desert, well-known for its remarkably diverse flora and fauna and a high degree of endemism (SoOUV, 2013).

Other important biodiversity values

► Other international designations

The Park lies within a Conservation International-designated Conservation Hotspot and a WWF Global 200
Eco-region. It lies within a UNESCO Biosphere Reserve and each lagoon is a Ramsar wetland. (WDPA, 2011)

Assessment information

Threats

Current Threats

High Threat

Currently the greatest threat is the depletion of freshwater aquifers, though agricultural and livestock development, over-fishing, waste disposal, and illegal hunting are also significant threats.

► Other

Very High Threat
Inside site

Increasing demands outstrip water supplies causing the depletion of freshwater aquifers (Parkswatch, 2004)

► Livestock Farming / Grazing

High Threat
Inside site

Agricultural and livestock development competes with and displaces native biota, especially through competition for water; physical damage by livestock, tramples vegetation and increases wind erosion (Parkswatch, 2004; Instituto de Ecologia, 2000)

▶ Fishing / Harvesting Aquatic Resources

High Threat
Inside site
Outside site

Illegal fishing leads to overfishing of stocks which in turns lowers productivity (WDPA, 2011; Parkswatch, 2004; Ramsar, 2003)

▶ Solid Waste

High Threat
Inside site
Outside site

Waste disposal is a problem for widely dispersed communities, and particularly serious with respect to organic wastes from fisheries (WDPA, 2011; Ramsar, 2003, Ramsar, 2003b)

▶ Commercial hunting

High Threat
Inside site
Outside site

Illegal hunting has a particularly devastating effect on targets species populations, and displaces wildlife to regions where there is less hunting pressure. Susbistence hunting is practiced in a few local communities and has reduced populations of target species. (WDPA, 2011; Parkswatch, 2004; Instituto de Ecologia, 2000)

Potential Threats

High Threat

The greatest threat overall is from climate change, though potential threats from inappropriate tourism development, accidental discharge of brine into lagoon environments, and exploration and development oil, gas, geothermal resources and mining are also concerns that need to be actively monitored.

▶ Temperature changes

Very High Threat

Inside site

Predictions are for stronger hurricanes, temperature increases, rainfall decreases (-18% by 2020, and – 30% by 2050), sea-level rise, and greater annual and seasonal variations in weather. These changes will cause a loss of vegetation and soil, delays in the annual migration of gray whales, ocean acidification and saline intrusions into freshwater aquifers (Mexidata.com, 2010; Cavasos, 2008)

► Tourism/ visitors/ recreation

High Threat
Inside site

Inappropriate tourism development exacerbates water scarcity, displaces native biota, degrades and fragments natural habitats, increases solid and liquid waste problems, and degrades scenic qualities. (Parkswatch, 2004)

► Other

High Threat
Inside site

Should one of the artificial salt pans of the salt works at Laguna San Ignacio be accidentally breached, it would release brine into the Lagoon impacting marine mammals, fisheries, and shorebirds (Ramsar, 2003).

► Oil/ Gas exploration/development

High Threat
Inside site

Exploration for oil, gas, geothermal resources, and minerals has been proposed in multiple instances, and these would impact especially sensitive environments such as the San Ignacio and Ojo de Liebre Lagoons, or important archaeological features, such as rupestrian rock art sites. (Parkswatch, 2004)

Protection and management

Assessing Protection and Management

► Relationships with local people

Some Concern

Efforts by the Reserve’s managers and cooperating NGOs to involve other government agencies at the national and state level, as well as local communities in management of the Reserve have had their ups and downs over the years. In general, however, the organized sectors of society (for example government agencies, ejidos, fishing cooperatives, tourism operators) have been able to have a greater say in management than non-organized farmers, ranchers, and laborers, and independent fishermen (Klarer, 2012; WDPA, 2011; Instituto de Ecologia, 2000; Young, 1999).

► Legal framework and enforcement

Data Deficient

The Reserve was established by decree in 1988, and in 2000, the National Institute of Ecology developed the reserve's management program, which considers the main factors influencing the protected area. (K;larer, 2012, WDPA, 2011, Parkswatch, 2004; Instituto de Ecologica, 2000). Information is deficient on actual enforcement of legal requirements and regulations.

► Integration into regional and national planning systems

Mostly Effective

The Reserve is well integrated into the national system of protected areas and planning and the state level. (Klarer, 2012; WDPA, 2011; Instituto de Ecologia, 2000)

► Management system

Mostly Effective

The National Commission of Natural Protected Areas (CONANP) is responsible for Reserve management. This reserve is divided into 16 core zones covering 362,438 hectares in which permitted activities are restricted to environmental education, scientific research, recreation, and tourism. The rest of the Reserve is part of the buffer zone. The buffer zone's objective is to maintain and improve ecosystem conditions and ensure the continuity of ecological processes. There are four field stations, also used as offices and

patrol posts, one of which is the Reserve's central office located in the town of Guerrero Negro. Management is theoretically guided by an officially sanctioned Conservation and Management Program, but it was developed in 2000, and is thus out-of-date. Annual Operations Programs guide activities on an annual basis (Klarer, 2012; WDPA, 2011; Parkswatch, 2004, Instituto de Ecologia, 2000). NGOs combined in a
Conservation Alliance led by Wildcoast, have agreed with a local ejido of communal landholders to create an easement of 308,000 hectares to limit development around Laguna San Ignazio in return for payment. This will protect both the whales and the local fishery (Hispanically Speaking News, 2012)

► Management effectiveness

Mostly Effective

Indicators of threat reduction and the condition of terrestrial and marine conservation targets indicate that threats have been reduced considerably in the past decade, and the condition of conservation targets has improved (Swartz, 2012; NAMPAM, 2010; Weinig, 2009; Lee, 2008).

► Implementation of Committee decisions and recommendations

Highly Effective

The State Party has responded to Committee decisions as appropriate.The State Party has responded to Committee decisions as appropriate.

► Boundaries

Mostly Effective

The boundaries of the site are adequate.

► Sustainable finance

Some Concern

The average total available funding for the Reserve is approximately USD 1 million. This amount is five times larger than the budget available 10 years ago; however it is still limited considering the size of the area and the need to protect marine and terrestrial ecosystems. The cost per hectare is approximately USD 0,38, almost 10% of the Mexican average expenditure in

protected areas. The financial needs projection for the coming three years suggests that the area is operating below its basic needs, and that it should triple its 2011 baseline in order to achieve an ideal management scenario. (Klarer, 2012)

▶ Staff training and development

Some Concern

Staff take part in sporadic training events organized by CONAP and cooperating NGOs, but there is no systematic program is in place. (WDPA,2011)

▶ Sustainable use

Mostly Effective

Most fisheries stocks fished by local cooperatives on a sustainable as determined by independent observers. (Beadle, 2010).

▶ Education and interpretation programs

Data Deficient

Data deficient

▶ Tourism and interpretation

Mostly Effective

The RARE Center for Tropical Conservation and the US/Mexican NGO Wildcoast, have worked in the Reserve training naturalist guides and offering courses to train locals in ecotourism, to create and strengthen the bases for community development and to run campaigns to improve knowledge of the threats to the region's natural resources (Carreón, 2004).Twenty nature guides have been trained in environmental interpretation and half are working as whale-watching guides. Preparations also began for training in ecotourism promotion. (WDPA, 2011)

▶ Monitoring

Mostly Effective

Fisheries conducted by Cooperatives are monitored on a regular basis, as are bighorn sheep, pronghorn antelope, and ospreys. The Reserve participates in

CONAP’s information, monitoring, and evaluation and monitoring system (SIMEC).

► Research

Mostly Effective

Studies of the terrestrial, marine and island flora and fauna of the whole area were initiated by the
Centro de Investigaciones de Baja California Sur by a joint USA/Mexican scientific team, supported by IUCN/WWF, which undertook whale censuses and tagging over a five-year period. PRO-ESTERO a USA/Mexican environmental education organisation, has a wealth of bibliographic information on the Vizcaíno wetlands and on research into the Ojo de Liebre, San Ignacio, and Guerrero Negro lagoons. Its descriptive profiles include full information on the physical and biological characteristics with flora and fauna lists. The salt mining company at Guerrero Negro has contributed to the area's conservation and research by water quality monitoring in the bays, and monitoring of gray whales, sea turtles, marine mammals, and wintering birds. The Unidades del
Centro de Investigaciones Biológicas, investigating arid land agriculture, is also located in Guerrero
Negro. Other national institutions working in the area, primarily on whales, birds and vegetation, have
been the Universidad Autónoma de Baja California, Universidad Autónoma de Baja California Sur,
Universidad Autónoma de Chihuahua, Centro de Ecología, Universidad Autónoma de México and the
Centro Interdisciplinario de Ciencias Marinas (WDPA, 2011).

Overall assessment of protection and management

Mostly Effective

Indicators of threat reduction and the condition of terrestrial and marine conservation targets indicate that threats have been reduced considerably in the past decade, and the condition of conservation targets has improved. The reserve is well integrated into the national system of protected areas and its management is also supported by various NGOs. There is however a serious

concern about the level of available funding.

▶ **Assessment of the effectiveness of protection and management in addressing threats outside the site**

Data Deficient

Data deficient

State and trend of values

Assessing the current state and trend of values

World Heritage values

▶ **Habitats of endangered and endemic species**

Low Concern
Trend:Stable

From all indicators, the current state of world heritage values is of “low concern” and is “stable”, or in some cases improving. The NAMPAN Scorecard rated water quality as being of “low concern”, though human activities point to deterioration. Habitat quality is “good” and “stable”. The ratings for living resources vary. The situation with alien species is “good” and stable. Biodiversity in general, and keystone and indicator species are rated as “low concern” and “improving”. The status of harvested species, and species of common concern is rated as being of “high concern” but “stable”. (NAMPAN, 2010). Monitoring of the populations of big horn sheep and grey whales, and of marine threats in general also indicate that trends are positive. (Swartz, 2012; Weinig, 2009; Lee, 2008).

Other important biodiversity values

▶ **Other international designations**

The Park lies within a Conservation International-designated Conservation Hotspot and a WWF Global 200
Eco-region. It lies within a UNESCO Biosphere Reserve and each lagoon is a

Ramsar wetland. (WDPA, 2011)

Summary of the Values

▶ **Assessment of the current state and trend of World Heritage values**

Low Concern

Trend: Stable

From all indicators, the current state of world heritage values is of “low concern” and is “stable”. The NAMPAN Scorecard rated water quality as being of “low concern”, though human activities point to deterioration. Habitat quality is “good” and “stable”. Biodiversity in general, and keystone and indicator species are rated as “low concern” and “improving”. The status of harvested species, and species of common concern is rated as being of “high concern” but “stable”. Monitoring of the populations of big horn sheep and grey whales also indicates that trends are positive.

▶ **Assessment of the current state and trend of other important biodiversity values**

Low Concern

Trend: Stable

The indicators that rate the state of World Heritage values for the site as “low concern” and “stable” apply equally to the biodiversity values associated with the other international designations for the site, such as a Conservation International-designated Conservation Hotspot, WWF Global 200 Eco-region, Biiosphere Reserve, and Ramsar wetlands. .

Additional information

Key conservation issues

▶ **Climate change**

Global

Predictions are for stronger hurricanes, temperature increases, rainfall

decreases, sea-level rise, and greater annual and seasonal variations in weather. These changes will cause a loss of vegetation and soil, delays in the annual migration of gray whales, variations in the harvests of lobsters and abalone, ocean acidification and saline intrusions into freshwater aquifers (Mexidata.com, 2010; Cavasos, 2008)

▶ **Depletion of freshwater aquifers**

Local

Increasing demands outstrip water supplies causing the depletion of freshwater aquifers. Not only will this affect all human activities, but will also impact biodiversity and threatened species (Parkswatch, 2004)

Benefits

Understanding Benefits

▶ **Is the protected area valued for its nature conservation?**

The conservation value of the site is indicated by its inscription as a World Heritage Site.

▶ **Fishing areas and conservation of fish stocks, Traditional agriculture, Livestock grazing areas**

The Reserve’s natural and cultural resources are the drivers of the local economy through fishing, agriculture, ranching, tourism, and mining.

▶ **Importance for research**

The site provides excellent opportunities for research that is relevant on a global scale.

Summary of benefits

Benefits that are most valued at the global scale are conservation and knowledge development, while locally the benefits most valued are the economic benefits that are generated from the use of the Reserve’s natural

and cultural resources.

Projects

Compilation of active conservation projects

№	Organization/ individuals	Project duration	Brief description of Active Projects
1	CONAP, Pronatura Mexico, A.C,. U..S. Fish and Wildlife Service, Division of Bird Habitat Conservation		Conservation of Pacific Brant Wintering Habitat in the Vizcaino Wetlands. This project will be implemented in two priority coastal wetlands in northwestern Mexico, critical for the winter habitat of the Pacific Black Brant: the 204,000-acre Ojo de Liebre-Guerrero Negro wetland complex, and the 266,000-acre San Ignacio Lagoon. The project will acquire 18,000 acres on the northern shore of San Ignacio Lagoon and establish a 207,000-acre conservation area on the western shore of the lagoon; strengthen conservation in priority coastal areas surrounding the Ojo de Liebre-Guererro Negro complex; educate and create capacity to manage and conserve migratory birds in and around the El Vizcaino Biosphere Reserve; and monitor the migratory bird populations at both sites.

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