



# Priority Actions for Spaans Lagoen

November 2017

## A Vision for Spaans Lagoen

*The biodiversity, landscape and cultural heritage of Spaans Lagoen will be maintained, restored, enhanced and managed now and in the future for the benefit of the communities of Aruba and for the broader international environment. Spaans Lagoen will provide a regional and national example for the conservation, management and restoration of an internationally important wetland area.*





## Priority Actions: A Short Term Action Plan for Spaans Lagoen

### Critical, short-term priority issues for Spaans Lagoen

This short term action plan is based on the comprehensive management plan for Spaans Lagoen that was developed as a two-day participative management planning process by Dr. Lawrence Jones-Walters of Wageningen Environmental Research (Alterra), staff of the Arikok National Park and invited stakeholders held at the University of Aruba in April 2017. It is a prioritised list of actions that need to be completed in the short term (6-24 months) and is based on a combination of Park, stakeholder and expert views, experience and knowledge of the key issues in and around the Spaans Lagoen and their potential solutions. Spaans Lagoen is a Ramsar site Ramsar Site and became an extension to the Park in February 2017. The delivery of these actions is a critical element in the future protection, management and restoration of the site as one of the key elements within the natural heritage of Aruba.

### 1. Habitat and species management and restoration

Issue	Impact	Action	When	Who
Mangrove management and restoration	The impact of mangrove management should be either positive for ecosystem and its associated wildlife. The creation of new watercourses and/or areas of open water will provide habitat diversity, increased potential for the movement of fish and other wildlife through the site.	1) The planting of mangroves within the restored area by local schoolchildren/ community groups.	Towards the end of the next dry season when safe access to the site is possible for community groups	Appropriate NGO in Association with Arikok National Park
		2) The ongoing maintenance of the restored area, e.g. to replace any failed mangrove shoots, to take any remedial action that might be required as a result of unexpected events (e.g. extreme weather, etc)	Following the planting exercise.	Arikok National Park

### 2. Specific/Alien invasive species management

Issue	Impact	Action	When	Who
Boa Constrictor	Decline, loss and/or eradication of native species high cultural and nature conservation value	1) Regular removal and destruction of snakes from the lagoon by experts.	Weekly during wet season (when snakes are most active); regular visits at other times to assess and remove snakes if necessary.	Snake expert on contract to Arikok National Park
		2) Restart/ give fresh momentum to the wider Government initiative/ campaign for the removal and	Combine with stakeholder meetings at government level (see communication actions)	Park manager and board chairman



		destruction of snakes from Aruba as a whole.		
Mozambique tilapia	Decline, loss and/or eradication of native species high commercial, and nature conservation value	1) Trial of electrofishing to remove adults from the population (use opportunity to monitor lion fish and remove if necessary)	As soon as possible. Then link to monitoring effort	Directie Natuur en Milieu in association with Arikok National Park
		2) Introduce 'targeted fishing' event for fishermen and other local community members to attempt to fish out as many tilapia as possible.	Within six months. Link to programme of community events (see communication actions)	Appropriate NGO and Fishing groups in collaboration with Arikok National Park

### 3. Public access and recreation (and physical infrastructure)

Issue	Impact	Action	When	Who
Casual recreation	Disturbance, in particular to feeding, roosting and breeding birds.	Provide signage to inform people of the interest of the site at the key entrance points and advise them of the appropriate behaviour (link to communications actions).	As soon as possible	Arikok National Park
Off-roading	Disturbance to birds and direct damage to, for example, the breeding burrows of the Aruban Burrowing Owl; impacts on vegetation including the potential to damage the regenerating mangrove.	1) The signage referred to above should also contain messages for potential off-roaders. Signage should also be placed to be visible from obvious access points to the site (together with the boulders).	As soon as possible	Arikok National Park
		2) Boulders should be placed in all sensitive areas in order to discourage off-roaders from entering the site. Any boulders that have been removed should be replaced.	As soon as possible	DOW
		3) Discuss with local police the potential, through policing activities by Park and other official authorities, the possibility of catching off roaders in the act. Once apprehended perform prosecution and ensure media coverage (link to general issues of legal implementation)	In next six months	Arikok National Park and Aruban police force



Paddle boarding and other organised recreation	Disturbance, in particular to feeding, roosting and breeding birds.	Direct contact with the tour operators and hotels in order to discuss best practice with them.	In the next 18 months	Arikok National Park in cooperation with hotels and tour operators
Fishing	Disturbance to feeding, roosting and breeding birds. Disruption of breeding and other activities by fish and (potentially) marine reptiles, e.g. turtles.	Involvement of the stakeholders (fishermen) in joint problem-solving with a view to managing the current activities to reduce the impact to a minimum (link to communications actions).	In the next 18 months	Arikok National Park in cooperation with fishing groups/ individual fishermen

#### 4. Legal protection and enforcement

Issue	Impact	Action	When	Who
General enforcement/ implementation of nature protection regulations	If activities are not regulated there is a danger of direct and indirect damage to the nature and other cultural heritage within the site.	A programme of education and training for key government officials, stakeholders and the island police about the content of the regulations would raise their profile as instruments for use and implementation. (Note communication actions included in the relevant section)	In the next 18 months	Arikok National Park in collaboration with government departments and Aruban police force
New buildings	Impacts include direct damage and removal of habitat, disturbance to and destruction of species, impeding of water courses and the construction of associated road and other infrastructure in order to service the new buildings/ properties.	Agree protocol (and link to training above) for consultation on planning applications with the Park in order that the planning process avoid licensing any new construction. Any illegal construction should be penalised and removed.	In the next 18 months	Arikok National Park in cooperation with DOW and other relevant government departments
Clearance for agricultural use	Impacts therefore include direct damage and removal of habitat, disturbance to and destruction of species, impeding of and changes to water courses that to gather can create the potential for increased erosion and siltation within the lagoon habitats themselves.	Agree protocol (and link to training above) so that any applications for changing land use should be the subject of consultation with the relevant Ministry department and the National Park authority. Unlicensed agricultural clearance should be reversed.	In the next 18 months	Arikok National Park in cooperation with government departments



## 5. Research and monitoring

Issue	Impact	Action	When	Who
The availability of basic data and information relating to the natural processes, species and habitats	Improved 1) selection and prioritisation of management and other actions and 2) more effective and accurate decision-making in relation to the delivery and implementation of policy and practical work on site	1) A desk study to review and collate relevant existing published and other information and to include a gap analysis in order to identify specific areas for future research, data collection and information provision. [Note: should include a review of the potential impacts of environmental change on the site focusing specifically on the impacts of climate change - this part could be a separate study depending on resources]	In the next 18 months	Arikok National Park in cooperation with Directie Natuur en Milieu research institutes
		2) Based on 1 above, the development of a research agenda to identify and prioritise specific areas within which research is required in order to support better decision-making in relation to the protection and management of specific species and habitats, the control of the identified alien invasive species and the management of activities such as fishing and tourist-based recreation.	In the next 18 months	Arikok National Park in cooperation with Directie Natuur en Milieu research institutes/ local and international experts
Monitoring	Improved 1) selection and prioritisation of future management and other actions and 2) decision-making in relation to maintaining or changing the delivery and implementation of policy and practical work on site and 3) funding potential	1) Monitoring of the recently completed restoration work; specifically use of the area by birds and fish and the appearance of regenerating mangrove.	As soon as possible	Arikok National Park in cooperation with Directie Natuur en Milieu research institutes/ local and international experts
		2) Monitoring (leading to specific controlling actions) of alien invasive species: boa constrictor, and lion fish.		
		3) Bird monitoring; breeding, migrating and feeding bird species and numbers	In the next 24 months	
		4) Fish monitoring; presence-absence recording, breeding/ spawning		

## 6. Communication

Issue	Impact	Action	When	Who
Stakeholder involvement	The current impacts are direct and indirect and in both cases result in the loss and/or deterioration of the wildlife interest of the site.	Develop a programme to identify and engage the key stakeholders in one on one and small-group/ focus group meetings with the specific purpose of providing them with: <ul style="list-style-type: none"> <li>increased awareness of the issues around the site</li> <li>an opportunity to input their views and opinions on the present and future protection and management of the site</li> <li>a common, agreed vision for the site, ownership of the solutions and a commitment to being part of their delivery.</li> </ul>	Next 6 months (preparation in coming 6 months, begin process in 6 months' time)	Arikok National Park with advice/ assistance of key experts
Awareness raising	The impact of a lack of awareness are largely the same as those described above. With an increased understanding and awareness of the issues and other factors surrounding the site, people are likely to change their behaviour in order to reduce the impact of their activities. They continue to carry out those activities they can no longer claim that they were unaware making regulation and/or prosecution a more straightforward process.	1) Leaflets targeted specifically at individual stakeholders/ stakeholder groups to raise their awareness of the issues and opportunities for them in becoming more engaged in the future protection and management of the site. Specific, priority target groups could include: <ul style="list-style-type: none"> <li>Tour operators/ Hotels</li> <li>Government officials</li> <li>Fishermen</li> <li>Property owners within and just outside the site boundaries</li> </ul>	Next 6 months	Arikok National Park and Aruba Tourism Authority with advice/ assistance of key experts
		2) General leaflets explaining the interest and importance of the site, giving advice on how to avoid damaging the site and	As soon as possible	Arikok National Park and Aruba Tourism Authority



		how to get the most out of a visit in terms of exploring the cultural and natural interest.		with advice/ assistance of key experts
		<p>4) Organisation of a range of events on the site that could include:</p> <ul style="list-style-type: none"> <li>• Community involvement in mangrove planting/ restoration</li> <li>• Guided tours to see the cultural and natural interest, targeted at the local community (but also worth considering for government officials and politicians, hotel and tour operators, fishermen, etc)</li> </ul>	As soon as possible (mangrove planting)	Arikok National Park in cooperation with local NGOs

## 7. Resources

Issue	Impact	Action	When	Who
Acquisition of sufficient and sustainable resources	Insufficient resources will result in less, limited or no action for the present and future protection and management of the site (which may potentially threaten the international and national status).	1) The delivery of a prioritised, short term action plan that can be the basis of a bidding document for financial and other resources (see section 5, also available as a separate document).	This plan – action completed	Arikok National Park in cooperation with research institutes/ experts
		2) The identification of key government stakeholders (via the communication actions listed above) in relation to engaging them within the process and convincing them of the value for providing funding for specific actions identified within the short term action plan.	Beginning asap	Arikok National Park
		3) Together with key NGO/international partners find potential sources of external funding in order to deliver specific projects for the protection and management of the site, the engagement of local communities and stakeholders, etc.	Beginning asap	Arikok National Park in collaboration/ partnership with research institutes/ experts