

# **THE MOSI-OA-TUNYA/VICTORIA FALLS WORLD HERITAGE PROPERTY**



## **STATE OF CONSERVATION REPORT**

2017-2018



*ZAMBIA AND ZIMBABWE*

**MOSI-OA-TUNYA/VICTORIA FALLS WORLD HERITAGE SITE**

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***THE STATE OF CONSERVATION REPORT***

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**ZAMBIA AND ZIMBABWE**

**2017 - 2018**

## PROPERTY DETAILS

- a) **States Parties:** *Zambia and Zimbabwe*
- b) **Name of World Heritage Property:** *Mosi-Oa-Tunya/ Victoria Falls*
- c) **Property Identification Number:** N509
- d) **Geographical coordinates to the nearest second:** *17°56" S and 25°55" E*
- e) **Date of inscription on the World Heritage List:** *15<sup>th</sup>December 1989.*
- f) **Organisation or entity responsible for the preparation of the Report:** *National Heritage Conservation Commission (Zambia) and Parks and Wildlife Management Authority (Zimbabwe) and National Museums and Monuments (Zimbabwe).*
- g) **Reporting period:** *2017 and 2018*
- h) **Date of the Report** - *November 2018*

### Signature on behalf of the States Parties

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Hon. Charles R. Banda (MP)  
Minister  
Ministry of Tourism and Arts

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Hon. Prisca Mupfumira (MP)  
Minister  
Ministry of Environment, Tourism and  
Hospitality Industry

ZAMBIA  
Date \_\_\_\_\_

ZIMBABWE  
Date \_\_\_\_\_

# 1 EXECUTIVE SUMMARY OF THE REPORT

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The two States Parties of Zambia and Zimbabwe have continued their joint efforts in the management and conservation of the Mosi-Oa-Tunya/Victoria Falls World Heritage Site. The last State of Conservation Report was submitted in November 2016. This report covers the period 2017 and part of 2018. It covers the following sections: Responses to the current decision, conservation issues and the disclosure clause according to paragraph 172 of the Operational Guidelines.

The current decision 41 COM 7B.22 on the property highlighted areas of success on one hand and areas of concern on the other hand. Key areas of concern were the proposed developments. The States Parties have taken note of the concerns and provided appropriate responses to the same.

Further, the States Parties have taken note of the guidance given in the decision to undertake a specific assessment on the impacts of the proposed Batoka dam and all its associated infrastructure on the Outstanding Universal Value of the property.

Other conservation issues encompassed activities related to Research and Monitoring, Resource Protection and Site maintenance, Public Awareness Initiatives and Capacity Building. The States Parties have continued undertaking research and monitoring of wildlife, river flows and tourism management. The two States Parties have also identified other areas to undertake joint monitoring such as monitoring on river bank erosion.

Workshops and training programmes were undertaken to accord knowledge and skills to the selected human resources involved in the conservation of the property. These included the UNESCO/AWHF training workshop, marine rescue training workshop to mention a few.

In concert with paragraph 172 of the Operational Guidelines, the proposed developments have been highlighted with reference to the area they are proposed to be situated. Almost all the developments cited are still in their preliminary or conceptual stages.

Four developmental projects/activities are being proposed in the property, one(1) in the buffer zone and five (5) in the Municipal area.

An Action plan and monitoring plan for the period 2019-2020 to guide the Joint activities between the two States Parties has been formulated. The Action Plan outlines the key resolutions that require urgent attention from the States Parties while the Monitoring plan focuses on the activities that require particular parameters to be captured on a regular basis to help in understanding particular phenomena.

## 2 RESPONSE TO THE DECISION OF THE WORLD HERITAGE COMMITTEE

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Responses to the most recent Decision on the Mosi-Oa-tunya/Victoria Falls World Heritage Property are outlined below:

**Paragraph 1:** Having examined document WHC/17/41.COM/7B

**Paragraph 2:** Recalling Decision 38 COM. 7B.96 adopted at its 38<sup>th</sup> Session (Doha, 2014)

**Paragraph 3:** Appreciates the submission of the Joint Integrated Management Plan (JIMP) for the period 2016 to 2021, and efforts to develop a sustainable tourism strategy for the property, and requests the States Parties to finalize this strategy as soon as possible in consultation with the World Heritage Centre and IUCN;

The States Parties take note of the request to finalize the Tourism Strategy and are currently reviewing the 2017 Draft Tourism Strategy to ensure that it takes into account all recent developments.

**Paragraph 4:** Also appreciates the decision taken by the State Party of Zambia to further reduce water abstraction from the Zambezi River, but also requests the States Parties of Zambia and Zimbabwe to ensure that the Environmental and Social Impact Assessment (ESIA) for the Batoka Gorge Hydroelectric Scheme includes a specific assessment of the impacts of the dam and all of its associated infrastructures, on the Outstanding Universal Value (OUV) of the property, in line with IUCN's World Heritage Advice Note on Environmental Assessment, and to submit it to the World Heritage Centre for review by IUCN, in accordance with Paragraph 172 of the Operational Guidelines;

Cognizant of the IUCN's World Heritage Advice Note on Environmental Assessment, and Paragraph 172 of the Operational Guidelines, the State Parties have tasked the relevant agencies including Zambezi River Authority, National Heritage Conservation Commission, Department of National Parks and Wildlife, Zimbabwe National Parks, Zambia Environmental Management Agency and Environmental Management Agency of Zimbabwe, to review the draft ESIA to ensure that the impact of the Batoka Gorge Hydroelectric Scheme and all of its associated infrastructures on the property is ascertained to mitigate any possible detrimental impact on the Outstanding Universal Value (OUV) of the property. Further, the ESIA is being subjected to a robust public consultative process.

**Paragraph 5:** Noting with significant concern that construction of a Ferris wheel is proposed within a high ecologically sensitive zone of the Eastern Cataract inside the property, which would be incompatible with the permitted infrastructural development as prescribed in the JIMP, and which will likely have a significant detrimental impact on the OUV of the property, urges the States Parties to not permit the project;

The State Party took note of the concern raised with respect to the proposed Ferris Wheel in the World Heritage Site. The States Parties would like to report that there are no developments on the ground and will continue to update the committee should there be any developments.

**Paragraph 6:** *Also noting with concern the State Party of Zambia's intention to partner with private investors to construct a hotel and recreational facilities inside the property, further requests the States Parties to clarify the exact locations of all developments and the plans to utilize Cataract Island for tourism, and to submit to the World Heritage Centre for review by IUCN, an ESIA for each of these projects, including a specific assessment of the impacts on OUV, in line with IUCN's Advice Note, before taking any decision that may be difficult to reverse, in accordance with Paragraph 172 of the Operational Guidelines;*

The States Parties took note of the concern raised relating to the construction of a hotel, recreational facilities inside the property and utilisation of the Cataract Island for tourism. The States Parties therefore, would like to report that there are no developments on the ground and will update the committee in line with the operational guidelines.

**Paragraph 7:** *Notes that the development of the sustainable financing/business plan is in progress and reiterates its request to the States Parties to expedite its completion, taking into consideration mechanisms for financing management operations;*

To expedite the finalization of the sustainable financing/business plan with consideration of the mechanisms for financing management operations, a Task Force headed by the Joint Site Management Committee has been put in place to complete the plan by the end of the first quarter of 2019.

**Paragraph 8:** *Acknowledging that the States Parties recorded a drop in Zambezi River water flow over the last two years and, noting that the States Parties will be assessing the cause of the decline by analysing water flow data, rainfall data and upstream activities, requests furthermore the States Parties to utilize the findings to inform the management of the property, also taking into consideration the added impact expected from climate change;*

The States Parties have noted the advice to utilize findings from the analysis of water flow data, rainfall data, upstream activities and impact of climate change to inform the management of the property.

**Paragraph 9:** *Welcomes the continued efforts by the States Parties to control the highly invasive alien weed, Lantana camara, which has been cleared from 70% of the property, and requests moreover the States Parties to continue their efforts to control this species, and to provide an update on the status of water hyacinth (Eichhornia crassipes) inside the property;*

The States Parties continue to control the highly invasive alien weed, Lantana camara, and have noted the request to provide update on the status of water hyacinth (Eichhornia crassipes) inside the property. The States Parties have

mapped the area in the property that is infested by *Lantana camara*. Nonetheless, there are still challenges in removing the invasive species especially on the slopes of gorges due to the nature of the terrain. Mechanical removal of water hyacinth is on-going.

### 3 OTHER CURRENT CONSERVATION ISSUES IDENTIFIED BY THE STATE(S) PARTY(IES) WHICH MAY HAVE /AN IMPACT ON THE PROPERTY’S OUTSTANDING UNIVERSAL VALUE

The States Parties identified and undertook several conservation activities to uphold the Outstanding Universal Values of the property. The activities undertaken are detailed below.

#### 3.1 RESEARCH AND MONITORING

Research and monitoring remains key to the protection of the OUVs as it provides States Parties with knowledge and understanding fundamental to the identification, management, and monitoring of World Heritage properties.

#### 3.2 ACTIVITIES UNDERTAKEN

The following activities were undertaken to provide continuous documentation and monitoring of the state of the property:

- Bird Monitoring: This activity is conducted twice a year involving different stakeholders. Currently the site has recorded 94 bird species (woodland and water birds) between the years 1994 and 2018.



Bird monitoring activity

- Archaeological/geological Study: Some excavations are being conducted in conjunction with University of Liverpool on selected sites in the property. The three year project seeks to provide new insights on the interpretation of the evolution of the property.



Archaeological/geological Study

- Site patrols and inspections: these were carried out to curb the site of other illegal activities other than poaching. There were conducted by the local Site Management Committee comprising various stakeholders.



Stakeholders undertaking Site patrols

### 3.3 ACTIVITIES PLANNED AND BEING UNDERTAKEN

There are a number of ongoing research programs being undertaken in and around the property including:

1. *Vulture Aerial survey*

The Survey focuses on vulture nesting site distribution and success; it is being undertaken in conjunction with the Victoria Falls wildlife Trust.

2. *Human wildlife conflict mitigation project.*

Various conflict mitigation strategies are being tried in and around the property including fencing of waste disposal and management sites. This approach also includes education/awareness campaigns and recycling.

3. *Wildlife Management*

Elephant and lion collaring to advise dispersal movement and connectivity in and around Victoria Falls and the Greater Kavango Zambezi Trans-frontier Conservation Area Landscape (VFWT, ALERT and Wildcru).

4. *Joint Raptor Survey on Batoka Gorge.*

The survey aims to provide insight into Taita falcon and Rock pratincole presence and distribution in the proposed Batoka hydropower project.

5. *River Bank Erosion Study*

States parties have agreed to undertake a joint study on the possible causes of river bank erosion and recommend appropriate mitigation measures.

- The States Parties have continued to monitor the flows of the Zambezi River upstream of the falls. The river flows for the period under consideration are depicted below. The average flows for the years 2016 and 2017, were 1,145 and 1,081 cumecs respectively.



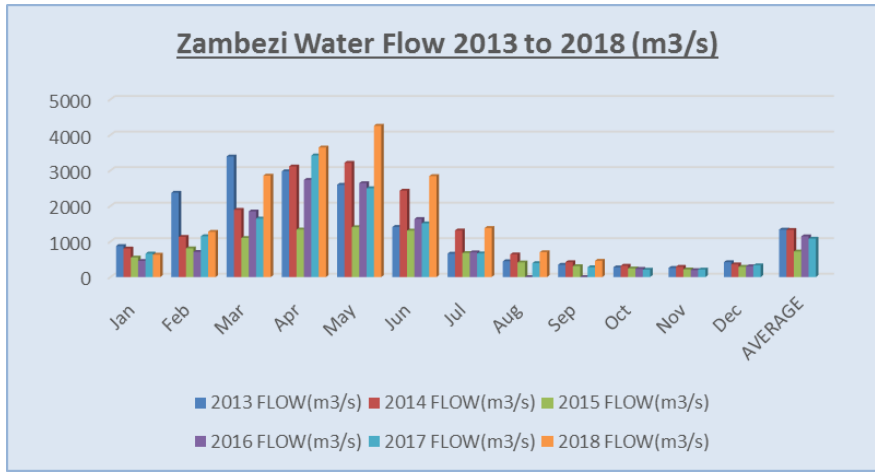


Figure 1: Zambezi Water flows 2013-2018

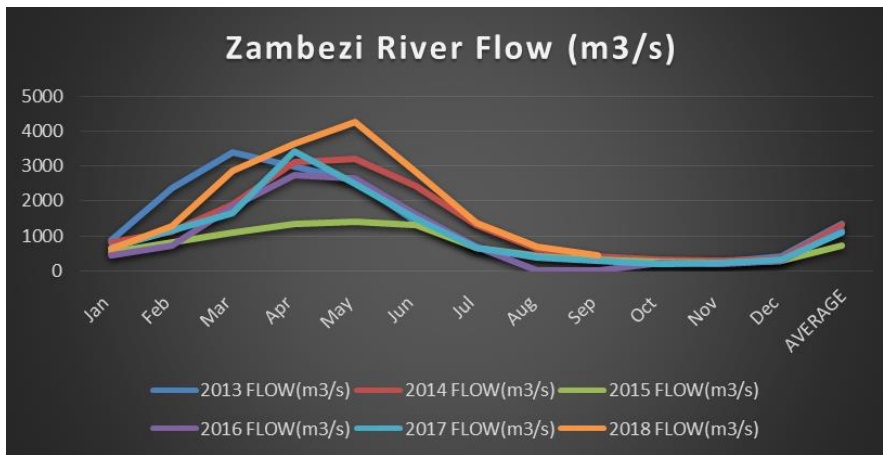


Figure 2: Zambezi Water flows trends 2013-2018

- Artificial water provision has been instituted in the southern section of Zambezi National Park to ensure even game distribution for tourism. There is a total of 9 solar powered boreholes in the southern part of Zambezi National Park running with the assistance from stakeholders.
- Anti-poaching operations have been maintained with patrols being conducted to curb illegal harvesting of wildlife (flora and fauna). Efforts are underway to mobilise resources such as motorbikes, vehicles, bicycles and marine equipment to support anti-poaching operations.
- There is continuous collection of Visitor Statistics to monitor the inflow of tourists through controlled entry points. The visitors' statistics were recorded as follows:

Year	2016	2017	2018
<b>Total</b>	<b>417 372</b>	<b>467 408</b>	<b>463 578</b>

**N.B. The statistics for the year 2018 reflect the period January to October**

The Property recorded an increase in tourist numbers between 2016 and 2017. A total of 417,372 and 467,408 tourists visited the site in 2016 and 2017 respectively, representing a 12 % increase. The increase in the numbers could be attributed to marketing efforts and tourism product development within the destination.

### 3.4 RESOURCE PROTECTION

Protection measures undertaken include the following:

- Preparation and implementation of Fire Management Plans (firebreaks and early burning in and around the property).
- Maintenance of 2km length of rainforest barriers using *Terminalia* branches.
- Improvement of barricades using natural and different tree species based on the geo-makeup of the property
- Baboon-proof bins were fabricated and mounted at strategic points.
- The High-Water Mark National Monument was secured by the erection of a boundary fence and information panel.

### 3.5 SITE MAINTENANCE

The site management undertook a cycle of short, medium and long-term actions to protect, conserve and present the property to ensure that all aspects of the Outstanding Universal Value are maintained. Site maintenance activities undertaken included the following:

- Revegetation:** A variety of indigenous and endemic tree species were planted based on the geo-makeup of the property. This activity is ongoing.



Planting trees in the property and tending indigenous tree nursery

- Control of Invasive plants:** The States Parties continued to control the highly invasive alien weed, *Lantana camara*, and have noted the request to provide update on the status of water hyacinth (*Eichhorniacrassipes*) inside the property.



Control of invasive alien species (*lantana camara*)

- Road maintenance:** Roads in and around the property were maintained through grading, gravelling, and culverting

- iv. **Site clean-up:** Clean-up operations were conducted with the support of the local Tourism Industry (*TBCZ, LTA*) *Environmental Management Agencies (EMA and ZEMA)* and *Environment Africa*. The exercise also included the introduction of animal proof litter bins in the World Heritage Property.



Clean up campaigns with stakeholders

- v. **Infrastructure:** The sustenance of tourism infrastructure in the property has been ongoing with the following insights;
- a) Rainforest rest rooms refurbished
  - b) Rainforest pathways repaired
  - c) Refurbishment of septic tanks and sewer systems
  - d) Completion of one ablution block
  - e) Constructed 1 staff house
  - f) Renovated 15 staff houses

### 3.6 PUBLIC AWARENESS AND ENGAGEMENT INITIATIVES

Public awareness initiatives employed a variety of media directed at community leaders, World Heritage resource users, students, private and government partners. This was aimed at improving community understanding on the importance of biodiversity conservation and initiate action towards sustainable solutions for site management. These undertakings include:

- Establishment of Interpretation and Extension office within Victoria Falls Town
- Signage in and around the property.
- Creation of Heritage Conservation Club at the Palm Groove Primary School



Palm Groove Heritage Conservation club

### 3.7 CAPACITY BUILDING

An array of capacity building training workshops were conducted that included the following:

- a) People centered approach on the conservation of cultural and natural heritage
- b) Marine rescue operations
- c) Geographic Information Systems training
- d) Wildlife diseases surveillance training
- e) Protective Security training
- f) Landscape connectivity workshops

## 4 PROPOSED DEVELOPMENTS AND ACTIVITIES IN CONFORMITY WITH PARAGRAPH 172 OF THE *OPERATIONAL GUIDELINES*

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The following developments within the property, buffer zones are proposed:

### 4.1 PROPOSED DEVELOPMENTS WITHIN THE WORLD HERITAGE PROPERTY

#### 4.1.1 Funicular and Restaurant

This development is proposed within the Boiling Point area. Based on concepts submitted, the development is similar to a cable car. The proposed development is likely to assist the physically challenged access lower parts of the gorge.

#### 4.1.2 One Stop Border Post

The Ultimate goal is to bring together all the border agencies for improved efficiency through streamlined, coordinated and harmonised operations through a virtual border post.

### 4.2 PROPOSED ACTIVITIES WITHIN THE WORLD HERITAGE PROPERTY

#### 1. *Jetboat*

The project is proposed for the area between rapids 1 and 4 where the project previously operated

#### 2. *Picnic Site*

The project seeks to regularise and formalise the use of an area popular with the local community while addressing the environmental issues relating to the site, including littering and uncontrolled access

#### 3. *Night viewing and dinner in the property*

The project seeks to extend access into the Rainforest to 10:00PM (22:00hrs). The activity is restricted to visitors under the supervision of a registered guide.

### 4.3 PROPOSED DEVELOPMENT WITHIN BUFFER

The State Party of Zambia received a proposal for the construction of Mosi-Oa-Tunya Livingstone Resort Hotel and golf course. The construction of the resort is

proposed to be constructed in the buffer zone of the property adjacent to the Maramba River, along the Mosi-Oa-Tunya road. The resort plans to construct a 300 bed space facility and 18 hole golf course. The proprietor has been advised to undertake an Environmental Impact Assessment.

#### **4.4 PROPOSED DEVELOPMENTS WITHIN THE MUNICIPAL AREAS**

##### **4.4.1 Mixed use Developments – (within Main Municipal offices)**

The Victoria Falls Municipality is looking into developing its current stand measuring 7.86 ha located within the centre of the town into mixed use developments that will have a state of the art Civic Centre, Theme park, Conference Centre , Shopping mall and a 5 star hotel.

##### **4.4.2 Helipad – (relocation of the Elephant Hills helipad)**

The relocation of the Helipad next to the Elephant Hills Hotel was a result of recommendations of the Joint Integrated Management Plan of 2007, where it was indicated that clients and tourist residing in the Elephant Hills Hotel were uncomfortable with the noise.

##### **4.4.3 Hotel – (next to A Zambezi, Caravan Park)**

A proposal was received to construct a Hotel on the Caravan stand located along Park way Drive next to A 'Zambezi River Lodge. Currently the proposal is undergoing EIA

##### **4.4.4 Upgrading of the Golf Course**

To promote sporting tourism, there is a proposal to upgrade and rehabilitate Elephant Hills golf course to international Standards.

##### **4.4.5 Expansion of Shearwater village (close to the railway loop)**

A proposal to extend the current Shearwater Village into the area close to the railway loop within the CBD was submitted to the Municipality for consideration.

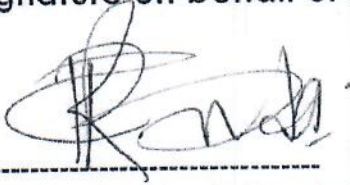
## **5 PUBLIC ACCESS TO THE STATE OF CONSERVATION REPORT**

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The States Parties have no objection to having the Report uploaded for public access.

6 SIGNATURE OF THE AUTHORITY

Signature on behalf of the States Parties:



Hon. Dr. Charles R. Banda (MP)  
Minister  
Ministry of Tourism and Arts



Hon. Prisca Mupfema (MP)  
Minister  
Ministry of Environment, Tourism and  
Hospitality Industry

ZAMBIA

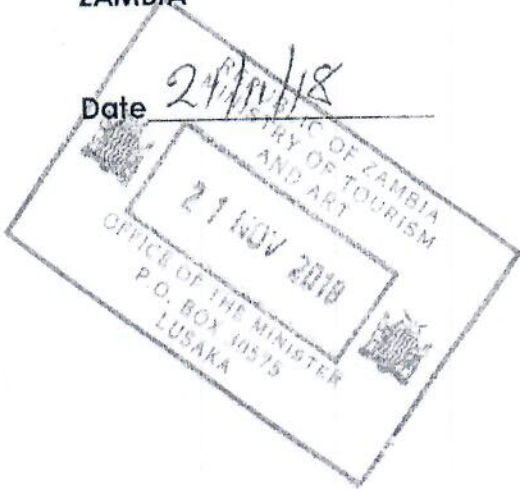
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## APPENDIX 1: Action Plan for Joint Activities

Aspect	Objective	Activity	Time frame	Performance Indicator	Target	Resources Required	Cost	Responsibilities	Result
<b>Environmental Aspects</b>									
<b>Water Monitoring</b>									
<i>Quality</i>	To establish trends in water quality	Collection of water samples up and downstream.	April and November	Records of water quality produced	Ecosystem integrity	Portable laboratory equipment		ZEMA, EMA	Monthly water samples are collected. Results show trends in the environmentally friendly band of blue except during rainy season when they get to green due to higher tepidity.
<i>Flow</i>	To maintain minimum environmental flows	Monitor Water flows	Daily	Record of water flow Volume estimates	Daily flows Discharge maintained between 53m3/s (dry) and 117m3 (rainy).	Hydrological equipment		ZESCO, ZINWA	Water abstraction from the Zambezi River is restricted to minimum levels, allowing enough water to flow over the lip of the Falls.
<b>Vegetation Monitoring</b>									
<i>Invasive alien species</i>	To monitor and control the spread of invasive alien species in the WHP	Removal of invasive alien species	Ongoing	% of Area cleared of invasive alien species.	- 70% of accessible areas - Natural vegetation regeneration	-Manpower, Chemicals, mattocks, machetes, Protective clothing		NHCC, ZPWMA, ZAWA, ZEMA, EMA,	70% of the 5.24Km <sup>2</sup> invaded area cleared of the invasive weed.
<b>Land degradation</b>									
<i>Erosion</i>	To maintain Island and riverbank integrity	Monitor the effects of erosion on key areas of the WHP	Seasonally	Extent of erosion on key areas of the WHP	Minimize human induced erosion	-Manpower and equipment		NHCC, ZPWMA, ZAWA, VFM, LCC, ZEMA, EMA,	-Walking trails in the core area rehabilitated. -Barriers erected at some viewing points to prevent access to the river bank and gorges - construction & maintenance of storm water drains and gully reclamation



<i>Sand Mining and stone extraction</i>	To curb land degradation	Enforce compliance	Daily	Extent of sand mining and stone extraction	Minimum sand mining and stone extraction	-Manpower, transport, financial		NHCC, ZPWMA, EMA, ZEMA, ZAWA, VFM, LCC	-Culprits arrested through night raids conducted.
<b>Waste management</b>									
<i>Solid waste</i>	To curb environmental pollution within the WHP	Monitor the management of solid waste within the WHP	Daily	Levels of pollution	Pollution free ecosystem	-Manpower, Statutory Instrument		ZEMA, EMA, LCC, VFM	-Most tourism properties were provided with receptacles -One municipality acquired a new refuse compactor -Distribution of refuse receptacles to some residents -Door to door campaigns - Adherence to scheduled waste collection times. - New landfill being constructed and current one is being fenced to limit accessibility.
	To monitor landfill designs, commissioning, operations, and decommissioning		Bi-annually	Efficiency of landfill sites	-Number of consultative meetings on designs -Number of landfills commissioned or decommissioned -Volume of litter disposed				-Designs for new landfill done, currently at tender stage
<i>Liquid waste</i>	To protect the aquatic environment	Monitor the discharge of industrial and sewerage waste in the open and aquatic environment	Daily	Open and aquatic environment	Pollution kept to minimal levels	Portable laboratory equipment		ZEMA, EMA, VFM, LCC	- A Water Sanitation and Hygiene program is being implemented. -Consultant hired and at final stages of producing designs - Removal of water

									hyacinth and desludging is on- going), -Monthly ambient monitoring and enforcement done to influence adherence to standards. -New pumps purchased and installed.
<b>Wildlife</b>									
<i>Human wildlife conflicts</i>	To promote co-existence	-Sensitisations and proactive actions -Fencing of wildlife	Ongoing	Number of human-wildlife conflicts	50% reduction in the number of incidences				-Fence erected on the Southern part of the WHP.
<i>Poaching</i>	To maintain species diversity	Increase anti-poaching patrols -Awareness raising -Conduct compliance activities	Daily	The number of anti-poaching patrols -Number of awareness meetings -Number of activities conducted	Species diversity maintained -Number of snares retrieved -Reduction of animal numbers per specie poached	Manpower, transport,		ZAWA, ZPWMA, Security agencies	-Patrols were conducted on a daily basis.  -Wire snares recovered have reduced by almost 50% in 3 years.
<i>Wild fires</i>	To reduce incidents of uncontrolled fires	Develop and implement fire management strategies	Annually	Extent and distribution of wildfires	Area burnt	Maps, satellite images		ZPWMA, EMA, NHCC, ZAWA	-Fire management plan developed. -Fire prevention programs conducted annually. -Implemented an integrated national fire strategy and enforcement programme - Satellite fire detection (near real time)

<b>Pollution</b>									
<i>Air pollution</i>	To monitor the extent and distribution of Air pollution		Quarterly	List effects and affected areas	Check lists of major points sources Non-point sources (wild fires)	Visual inspection; Air pollution measuring equipment		ZEMA, EMA, NHCC, ZPWMA, LCC, VFM	-Culprits are being apprehended
<i>Noise pollution</i>	To monitor the extent and distribution of noise pollution		Quarterly	List effects and affected areas	-Taita falcon nesting and distribution -Helicopter flying height and direction; -Helicopter activities expansion -Visitor queries	GPS, Visual inspection, Acoustic calibrator		EMA, ZEMA, ZAWA, ZPWMA, NHCC,	
<b>Tourism and Development Aspects</b>									
<i>Visitation/ Tourism pressure</i>	To measure the impact of Tourism on World Heritage site		Quarterly	Visitor statistics Environmental degradation	Arrivals Area disturbed	Records Maps/Satellite images		NHCC, ZPWMA, MOTA, ZTA, ZTB, ZDA, ZAWA,	-Impacts of tourism being monitored and mitigated.
<i>Infrastructural Developments</i>	To monitor tourism developments within and around the WHS		Annually	Distribution of semi-& permanent infrastructure within and around the WHS	Number of developments	Development approvals Inspections Checklist of developments		LCC, VFM, ZEMA, EMA, ZAWA, ZPWMA	-All development subjected to EIAs - Enforcement of urban development regulations and policies being done on new and old projects respectively
<b>Education and Awareness Aspects</b>									
<i>Awareness creation</i>	To create awareness among pupils, students and scholars on the values of the WHS		Quarterly	Schools mobilized/engaged	-Number of schools -Number of scholars visiting	Financial resources, information materials (ICEs)		NHCC, ZEMA, ZPWMA, ZAWA, EMA	-Education awareness campaigns and workshops on the WHP are being held.

## APPENDIX 2: Timelines of key activities

S/N	ACTIVITY	DATE	RESPONSIBLE	REMARKS
1	Completion of Map Shape Files of MVHS	November 9, 2018	ZIMPARKS, NHCC, DNPW, VFM, LCC	
2	Draft Maps of MVHS Produced	November 12, 2018	ZIMPARKS, NHCC, DNPW, VFM, LCC	
3	Finalisation and Printing of Maps	November 23, 2018	ZIMPARKS, NHCC, DNPW, VFM, LCC	
4	Submission of Maps	November 26, 2018	NATCOMS	Two printed copies and an electronic version (pdf/jpeg)
5	Supporting Documentation for Map Submission	November 9, 2018	Kagosi and Hillary	
6	Finalisation of SOC Report	November 9, 2018	Joint Site Management Committee	
7	Signing of SOC Report	November 16, 2018	ZPWMA, NHCC	
8	Submission of SOC Report	November 30, 2018	NATCOMS	
9	Roadmap for Riverbank Erosion Study	November 9, 2018	Site Management Committee	
10	Completion of SEA Proposal	February 28, 2019	Site Management Committee	
11	Completion of Tourism Strategic Plan	February 28, 2019	Site Management Committee	
12	Sustainable Financing Business Plan	February 28, 2019	Site Management Committee	
13	Assessment of the Abseiling Platform on the Zimbabwean Side	November 2018 – January 2019		The study shall be concluded within three months beginning November 2018.
14	JTC Meeting	May 2019	ZPWMA	Possible analysis of responses to recommendations of the Advisory Bodies

**APPENDIX 3: Zambezi water flows 2013-2018**

Year	Parameter	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Average
2013	Flow(m <sup>3</sup> /s)	874	2373	3394	2979	2598	1410	658	445	346	273	257	419	<b>1336</b>
2014	Flow(m <sup>3</sup> /s)	804	1132	1893	3113	3217	2431	1312	640	420	318	290	359	<b>1327</b>
2015	Flow(m <sup>3</sup> /s)	550	809	1101	1339	1403	1307	675	412	309	244	215	287	<b>721</b>
2016	Flow(m <sup>3</sup> /s)	454	708	1848	2734	2644	1634	697	-	-	230	196	302	<b>1145</b>
2017	Flow(m <sup>3</sup> /s)	660	1149	1647	3423	2499	1512	664	392	275	208	213	329	<b>1081</b>
2018	Flow(m <sup>3</sup> /s)	631	1274	2854	3645	4257	2842	1379	700	457				

**Source:** Zambia Electricity Supply Corporation, 2018