

Periodic Report - Second Cycle

1. World Heritage Property Data

1.1 - Name of World Heritage Property

Hawaii Volcanoes National Park

1.2 - World Heritage Property Details

State(s) Party(ies)

- United States of America

Type of Property

natural

Identification Number

409


Year of inscription on the World Heritage List

1987

1.3 - Geographic Information Table

Name	Coordinates (longitude / latitude)	Property (ha)	Buffer zone (ha)	Total (ha)	Inscription year
Mauna Loa and Kilauea Volcanoes , Hawaii	19.333 / -155.5	84033	?	84033	
Ola'a Forest Tract , Hawaii	19.5 / -155.25	3907	?	3907	
Total (ha)		87940	0	87940	

1.4 - Map(s)

Title	Date	Link to source
Hawaii Volcanoes National Park - Map of the inscribed property	04/12/1986	

1.5 - Governmental Institution Responsible for the Property

- Jonathan Putnam
US National Park Service Office of International Affairs
World Heritage Program Officer

1.6 - Property Manager / Coordinator, Local Institution / Agency

- Cynthia Orlando
Hawaii Volcanoes National Park
Superintendent

1.7 - Web Address of the Property (if existing)

- [View photos from OUR PLACE the World Heritage collection](#)
- [Hawaii Volcanoes National Park \(U.S. World Heritage\)](#)
- [Hawaii Volcanoes National Park \(U.S. National Park Service\)](#)
-
- [World Heritage in the United States](#)

Comment

Please delete # 1 , 2 and # 5. Add: www.nps.gov/havo
www.facebook.com/hawaii/volcanoes Twitter: @PacificNPS

Section II-Hawaii Volcanoes National Park

1.8 - Other designations / Conventions under which the property is protected (if applicable)

Comment

International Biosphere Reserve 123,100 acres designated wilderness 121,015 eligible wilderness

2. Statement of Outstanding Universal Value

2.1 - Statement of Outstanding Universal Value / Statement of Significance

Statement of Significance

Hawaii Volcanoes National Park contains Mauna Loa and Kilauea, two of the world's most active and accessible volcanoes where ongoing geological processes are easily observed. This property serves as an excellent example of island building through volcanic processes. Through the process of shield-building volcanism, the park's landscape is one of relatively constant, dynamic change. Criterion (viii) This property is a unique example of significant island building through ongoing volcanic processes. It represents the most recent activity in the continuing process of the geologic origin and change of the Hawaiian Archipelago. The park contains significant parts of two of the world's most active and best understood volcanoes, Kilauea and Mauna Loa. The volcano Mauna Loa, measured from the ocean floor, is the greatest volcanic mass on earth.

2.2 - The criteria (2005 revised version) under which the property was inscribed

(viii)

2.3 - Attributes expressing the Outstanding Universal Value per criterion

2.4 - If needed, please provide details of why the Statement of Outstanding Universal Value should be revised

2.5 - Comments, conclusions and / or recommendations related to Statement of Outstanding Universal Value

3. Factors Affecting the Property

3.14. Other factor(s)

3.14.1 - Other factor(s)

Landscape level alliances that affect multiple landowners and biological resources to protect ecosystems. Cultural landscapes that serve as traditional cultural properties.

3.15. Factors Summary Table

3.15.1 - Factors summary table

	Name	Impact				Origin	
3.1	Buildings and Development						
3.1.1	Housing						
3.1.4	Major visitor accommodation and associated infrastructure						
3.1.5	Interpretative and visitation facilities						
3.2	Transportation Infrastructure						
3.2.1	Ground transport infrastructure						
3.2.2	Air transport infrastructure						
3.2.3	Marine transport infrastructure						
3.2.4	Effects arising from use of transportation infrastructure						
3.3	Services Infrastructures						
3.3.2	Renewable energy facilities						
3.3.4	Localised utilities						
3.3.5	Major linear utilities						
3.4	Pollution						
3.4.1	Pollution of marine waters						
3.4.2	Ground water pollution						
3.4.3	Surface water pollution						
3.4.4	Air pollution						
3.4.5	Solid waste						
3.4.6	Input of excess energy						
3.5	Biological resource use/modification						
3.5.3	Land conversion						
3.5.4	Livestock farming / grazing of domesticated animals						
3.5.5	Crop production						
3.5.7	Subsistence wild plant collection						
3.5.8	Commercial hunting						
3.5.9	Subsistence hunting						
3.5.10	Forestry /wood production						
3.7	Local conditions affecting physical fabric						
3.7.1	Wind						
3.7.2	Relative humidity						
3.7.3	Temperature						
3.7.6	Water (rain/water table)						
3.7.7	Pests						
3.7.8	Micro-organisms						
3.8	Social/cultural uses of heritage						
3.8.1	Ritual / spiritual / religious and associative uses						
3.8.2	Society's valuing of heritage						
3.8.3	Indigenous hunting, gathering and collecting						
3.8.4	Changes in traditional ways of life and knowledge system						
3.8.5	Identity, social cohesion, changes in local population and community						
3.8.6	Impacts of tourism / visitor / recreation						
3.9	Other human activities						

	Name	Impact						Origin	
3.9.1	Illegal activities								
3.9.2	Deliberate destruction of heritage								
3.9.3	Military training								
3.10	Climate change and severe weather events								
3.10.1	Storms								
3.10.2	Flooding								
3.10.3	Drought								
3.10.6	Temperature change								
3.10.7	Other climate change impacts								
3.11	Sudden ecological or geological events								
3.11.1	Volcanic eruption								
3.11.2	Earthquake								
3.11.3	Tsunami/tidal wave								
3.11.6	Fire (wildfires)								
3.12	Invasive/alien species or hyper-abundant species								
3.12.1	Translocated species								
3.12.2	Invasive/alien terrestrial species								
3.12.4	Invasive / alien marine species								
3.12.5	Hyper-abundant species								
3.12.6	Modified genetic material								
3.13	Management and institutional factors								
3.13.1	Low impact research / monitoring activities								
3.13.2	High impact research / monitoring activities								
3.13.3	Management activities								
Legend	Current	Potential	Negative	Positive	Inside	Outside			

3.16. Assessment of current negative factors

3.16.1 - Assessment of current negative factors

	Spatial scale	Temporal scale	Impact	Management response	Trend	
3.2 Transportation Infrastructure						
3.2.2	Air transport infrastructure	extensive	on-going	significant	medium capacity	increasing
3.2.4	Effects arising from use of transportation infrastructure	widespread	on-going	significant	medium capacity	increasing
3.3 Services Infrastructures						
3.3.4	Localised utilities	localised	on-going	minor	medium capacity	decreasing
3.3.5	Major linear utilities	localised	on-going	minor	medium capacity	static
3.4 Pollution						
3.4.1	Pollution of marine waters	widespread	intermittent or sporadic	significant	no capacity and / or resources	static
3.4.2	Ground water pollution	localised	intermittent or sporadic	significant	no capacity and / or resources	static
3.4.3	Surface water pollution	localised	on-going	significant	medium capacity	increasing
3.4.4	Air pollution	localised	intermittent or sporadic	minor	no capacity and / or resources	static
3.4.5	Solid waste	localised	intermittent or sporadic	minor	medium capacity	decreasing
3.4.6	Input of excess energy	localised	intermittent or sporadic	significant	medium capacity	decreasing
3.5 Biological resource use/modification						
3.5.3	Land conversion	extensive	frequent	significant	no capacity and / or resources	static
3.5.4	Livestock farming / grazing of domesticated animals	extensive	frequent	significant	no capacity and / or resources	static
3.5.7	Subsistence wild plant collection	localised	intermittent or sporadic	minor	high capacity	static

		Spatial scale	Temporal scale	Impact	Management response	Trend
3.5.10	Forestry /wood production	localised	frequent	significant	no capacity and / or resources	static
3.7	Local conditions affecting physical fabric					
3.7.1	Wind	localised	intermittent or sporadic	significant	no capacity and / or resources	increasing
3.7.2	Relative humidity	widespread	on-going	minor	no capacity and / or resources	static
3.7.3	Temperature	widespread	on-going	significant	no capacity and / or resources	increasing
3.7.6	Water (rain/water table)	widespread	on-going	significant	no capacity and / or resources	increasing
3.7.7	Pests	localised	on-going	significant	medium capacity	decreasing
3.7.8	Micro-organisms	extensive	frequent	significant	medium capacity	static
3.9	Other human activities					
3.9.1	Illegal activities	localised	intermittent or sporadic	minor	medium capacity	decreasing
3.9.2	Deliberate destruction of heritage	restricted	one off or rare	insignificant	high capacity	decreasing
3.9.3	Military training	extensive	frequent	significant	medium capacity	increasing
3.10	Climate change and severe weather events					
3.10.1	Storms	widespread	intermittent or sporadic	significant	medium capacity	increasing
3.10.2	Flooding	localised	intermittent or sporadic	significant	low capacity	static
3.10.3	Drought	localised	frequent	significant	medium capacity	increasing
3.10.6	Temperature change	widespread	on-going	significant	medium capacity	increasing
3.10.7	Other climate change impacts	widespread	on-going	significant	medium capacity	increasing
3.11	Sudden ecological or geological events					
3.11.1	Volcanic eruption	widespread	on-going	catastrophic	low capacity	static
3.11.2	Earthquake	widespread	frequent	catastrophic	low capacity	static
3.11.3	Tsunami/tidal wave	extensive	intermittent or sporadic	catastrophic	low capacity	static
3.12	Invasive/alien species or hyper-abundant species					
3.12.1	Translocated species	localised	intermittent or sporadic	significant	no capacity and / or resources	increasing
3.12.2	Invasive/alien terrestrial species	localised	frequent	catastrophic	medium capacity	decreasing
3.12.4	Invasive / alien marine species	extensive	frequent	significant	low capacity	increasing
3.12.5	Hyper-abundant species	extensive	frequent	significant	low capacity	increasing
3.12.6	Modified genetic material	restricted	one off or rare	insignificant	no capacity and / or resources	static
3.13	Management and institutional factors					
3.13.2	High impact research / monitoring activities	localised	intermittent or sporadic	minor	high capacity	decreasing

3.17. Comments, conclusions and / or recommendations related to factors affecting the property

3.17.1 - Comments

4. Protection, Management and Monitoring of the Property

4.1. Boundaries and Buffer Zones

4.1.1 - Buffer zone status

There is no buffer zone, and it is not needed

4.1.2 - Are the boundaries of the World Heritage property adequate to maintain the property's Outstanding Universal Value?

The boundaries of the World Heritage property are **adequate** to maintain the property's Outstanding Universal Value

4.1.3 - Are the buffer zone(s) of the World Heritage property adequate to maintain the property's Outstanding Universal Value?

The property had no buffer zone at the time of its inscription on the World Heritage List

4.1.4 - Are the boundaries of the World Heritage property known?

The boundaries of the World Heritage property are known by both the management authority and local residents / communities / landowners.

4.1.5 - Are the buffer zones of the World Heritage property known?

The property had **no buffer zone** at the time of its inscription on the World Heritage List

4.1.6 - Comments, conclusions and / or recommendations related to boundaries and buffer zones of the World Heritage property

Though there is no UNESCO recognized buffer zone the manager recognizes that the site faces external threats to the property boundaries. In attempting to achieve these protections in other ways adjacent community Comprehensive Development Plans identify the World Heritage and Biosphere Reserve values and identify specific actions to protect those values working with the site.

4.2. Protective Measures

4.2.1 - Protective designation (legal, regulatory, contractual, planning, institutional and / or traditional)

Owner : The United States Department of the Interior, Washington, D.C.

An Act of the United States Congress of August 1, 1916 (39 Stat. 432), authorized Hawaii National Park, in two non-contiguous units on two different islands of what was then the Territory of Hawaii-Kilauea unit on Hawaii and Haleakala unit on Maui. The park was created from federally owned lands and by donation from the Territory of Hawaii.

In 1961, Congress separated these two units into separate national parks (75 Stat. 577), Hawaii Volcanoes National Park on Hawaii and Haleakala National Park on Maui. In the intervening 45 years, Congressional authorizations of 1922 (45 Stat. 503), 1928 (45 Stat. 424) and 1938 (52 Stat. 781) more than doubled the original acreage set aside for the Kilauea/Mauna Loa unit in 1916.

A Congressional Act of April 19, 1930 (46 Stat. 227), granted exclusive legal jurisdiction for park lands to the Federal Government of the United States.

Part of the June 23, 1938, Congressional Act (52 Stat. 781) gave the Secretary of the Interior discretionary authority to allow homesite leases with the Kalapana extension of the park. It also restricted coastal fishing in the extension to native Hawaiians of Kalapana and persons guided by them. To date, the homesite lease discretionary authority has not been exercised.

The 'Ola'a Forest Tract was obtained by donation of ceded Territorial lands in 1951 and 1953 (Exec. Order #1640 by Territorial Governor Long). Title is vested in the United States Federal Government and the U.S National Park service has protective custody, though the land is not technically part of Hawaii Volcanoes National Park. Under terms of the 1938 Extension Act, all lands acquired must be adjacent or contiguous to the existing park boundary. This 'Ola'a Forest Tract is separated by several small parcels of private intervening lands.

An Act of Congress, approved November 20, 1978, formally designated 48, 818 hectares (123,100 acres) of the park as Wilderness lands (P. L. 95-625).

Hawaii Volcanoes National Park is legally established as a conservation unit per an act of Congress, August 1, 1916. Hawaii Volcanoes National Park was also designated an International Biosphere Reserve property on November 20, 1980.

Comment

Spelling national parks; on Hawaii Island

4.2.2 - Is the legal framework (i.e. legislation and / or regulation) adequate for maintaining the Outstanding Universal Value including conditions of Integrity and / or Authenticity of the property?

The legal framework for the maintenance of the Outstanding Universal Value including conditions of Authenticity and / or Integrity of the World Heritage property provides **an adequate or better basis** for effective management and protection

4.2.3 - Is the legal framework (i.e. legislation and / or regulation) adequate in the buffer zone for maintaining the Outstanding Universal Value including conditions of Integrity and / or Authenticity of the property?

The legal framework for the maintenance of the Outstanding Universal Value including conditions of Authenticity and / or Integrity of the World Heritage property provides **an adequate or better basis** for effective management and protection

4.2.4 - Is the legal framework (i.e. legislation and / or regulation) adequate in the area surrounding the World Heritage property and buffer zone for maintaining the Outstanding Universal Value including conditions of Integrity and / or Authenticity of the property?

The legal framework for the area surrounding the World Heritage property and the buffer zone provides **an adequate or better basis** for effective management and protection of the property, contributing to the maintenance of its Outstanding Universal Value including conditions of Authenticity and / or Integrity

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4.2.5 - Can the legislative framework (i.e. legislation and / or regulation) be enforced?

There is **excellent** capacity / resources to enforce legislation and / or regulation in the World Heritage property

4.2.6 - Comments, conclusions and / or recommendations related to protective measures

4.3. Management System / Management Plan

4.3.1 - Management System

Management authority for the park rests with the Superintendent of Hawai'i Volcanoes National Park, who reports to the National Park Service Pacific West Regional Director, who reports to Director of the National Park Service in Washington, D.C. Within the park, the Superintendent is assisted by several division chiefs including resources management, interpretation, visitor protection, administration, and maintenance.

There is a Master Plan that has been in use since 1975. The plan covers the regional environment, the park and its resources, planning consideration, and future management and use.

Issues addressed in the plan include:

- General information on the regional environment, populations, land character, and use.
- Information regarding the Park and its resources such as the geology, vegetation, animal life, history and archeology, and visitor use potential.
- Planning considerations including legal issues, climate, special conditions (primarily volcano eruptions), visitor use, and adjacent resources (what lands adjacent to the Park should be considered for future inclusion).
- Future management and use is next identified. Issues relating to an overall plan are discussed. Interpretation should be comprehensive and flexible, and cover a wide variety of topics. Lands that would complete the story of the Park's resources will be reviewed and listed on a proposed addition list. Continued and expanded research opportunities are identified (environmental stability, effects of fire, oceanographic investigations, exotic species control, threatened and endangered species protection, historical and archeological investigations, etc.). Visitor use issues including traffic patterns, carrying capacities, access, facilities, wilderness, and backcountry use are discussed.

An amendment to the Master Plan is underway to address specific issues regarding the addition of the new lands. The Master Plan can be found at www.nps.gov/havo. Click on the Management Plans icon to find this document.

Comment

Add: A new General Management Plan is being developed that will: -Preserve resources and provide long-term protection of the park; -Provide a range of high quality visitor experiences; -Preserve wilderness character and values of the area; -Provide for cost-effective, efficient and sustainable facilities and operations; -Provide for conservation-focused commercial services. -

4.3.2 - Management Documents

Comment

New General Management Plan will be available in 2014. Environmental Impact Statement for Protecting and Restoring Native Ecosystems by Managing Non-native Ungulates. Record of Decision 2013 NPS Management Policies

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4.3.3 - How well do the various levels of administration (i.e. national / federal; regional / provincial / state; local / municipal etc.) coordinate in the management of the World Heritage Property ?

There is **excellent coordination** between all bodies / levels involved in the management of the property

4.3.4 - Is the management system / plan adequate to maintain the property's Outstanding Universal Value ?

The management system / plan is **fully adequate** to maintain the property's Outstanding Universal Value

4.3.5 - Is the management system being implemented?

The management system is being **fully** implemented and monitored

4.3.6 - Is there an annual work / action plan and is it being implemented?

An annual work / action plan exists and **most or all activities** are being implemented and monitored

4.3.7 - Please rate the cooperation / relationship with World Heritage property managers / coordinators / staff of the following

Local communities / residents	Good
Local / Municipal authorities	Good
Indigenous peoples	Good
Landowners	Good
Visitors	Good
Researchers	Good
Tourism industry	Good
Industry	Fair

4.3.8 - If present, do local communities resident in or near the World Heritage property and / or buffer zone have input in management decisions that maintain the Outstanding Universal Value?

Local communities **directly contribute** to some decisions relating to management

4.3.9 - If present, do indigenous peoples resident in or regularly using the World Heritage property and / or buffer zone have input in management decisions that maintain the Outstanding Universal Value?

Indigenous peoples directly participate in **all relevant** decisions relating to management, i.e. co-management

4.3.10 - Is there cooperation with industry (i.e. forestry, mining, agriculture, etc.) regarding the management of the World Heritage property, buffer zone and / or area surrounding the World Heritage property and buffer zone?

There is **regular contact** with industry regarding the management of the World Heritage property, buffer zone and / or area surrounding the World Heritage property and buffer zone and **substantial co-operation** on management

4.3.11 - Comments, conclusions and / or recommendations related to human resources, expertise and training

4.3.12 - Please report any significant changes in the legal status and / or contractual / traditional protective

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measures and management arrangements for the World Heritage property since inscription or the last Periodic report

4.4. Financial and Human Resources

4.4.1 - Costs related to conservation, based on the average of last five years (relative percentage of the funding sources)

Multilateral funding (GEF, World Bank, etc)	0%
International donations (NGO's, foundations, etc)	0%
Governmental (National / Federal)	45%
Governmental (Regional / Provincial / State)	0%
Governmental (Local / Municipal)	0%
In country donations (NGO's, foundations, etc)	5%
Individual visitor charges (e.g. entry, parking, camping fees, etc.)	45%
Commercial operator payments (e.g. filming permit, concessions, etc.)	5%
Other grants	

4.4.2 - International Assistance received from the World Heritage Fund (USD)

Comment

None to my knowledge

4.4.3 - Is the current budget sufficient to manage the World Heritage property effectively?

The available budget is **acceptable** but could be further improved to fully meet the management needs

4.4.4 - Are the existing sources of funding secure and likely to remain so?

The existing sources of funding are **secure** in the medium-term and planning is underway to secure funding in the long-term

4.4.5 - Does the World Heritage property provide economic benefits to local communities (e.g. income, employment)?

There is a **major flow** of economic benefits to local communities from activities in and around the World Heritage property

4.4.6 - Are available resources such as equipment, facilities and infrastructure sufficient to meet management needs?

There are **adequate** equipment and facilities

4.4.7 - Are resources such as equipment, facilities and infrastructure adequately maintained?

Equipment and facilities are **well maintained**

4.4.8 - Comments, conclusion, and / or recommendations related to finance and infrastructure

4.4.9 - Distribution of employees involved in managing the World Heritage property (% of total)

Full-time	100%
Part-time	0%

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4.4.10 - Distribution of employees involved in managing the World Heritage property (% of total)

Permanent	75%
Seasonal	25%

4.4.11 - Distribution of employees involved in managing the World Heritage property (% of total)

Paid	75%
Volunteer	25%

4.4.12 - Are available human resources adequate to manage the World Heritage property?

A range of human resources exist, but these are **below optimum** to manage the World Heritage Property.

4.4.13 - Considering the management needs of the World Heritage property, please rate the availability of professionals in the following disciplines

Research and monitoring	Fair
Promotion	Fair
Community outreach	Fair
Interpretation	Fair
Education	Fair
Visitor management	Fair
Conservation	Fair
Administration	Fair
Risk preparedness	Fair
Tourism	Fair
Enforcement (custodians, police)	Fair

4.4.14 - Please rate the availability of training opportunities for the management of the World Heritage property in the following disciplines

Research and monitoring	Medium
Promotion	Medium
Community outreach	Medium
Interpretation	Medium
Education	Medium
Visitor management	Medium
Conservation	Medium
Administration	Medium
Risk preparedness	Medium
Tourism	Medium
Enforcement (custodians, police)	Medium

4.4.15 - Do the management and conservation programmes at the World Heritage property help develop local expertise?

A capacity development plan or programme is **in place and fully implemented**; all technical skills are being transferred to those managing the property locally, who are assuming leadership in management

4.4.16 - Comments, conclusions and / or recommendations related to human resources, expertise and training

The operational budget of Hawaii Volcanoes National Park is insufficient to fund many science and resource management projects, operation of new park areas, boost core interpretive and educational programs to enhance visitor experience, monitor and restore threatened and endangered species, combat invasive species and further cultural resource,

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museum, archaeological and ethnographic programs. Staff positions remain vacant due to lack of funds and critical infrastructure needs exist.

4.5. Scientific Studies and Research Projects

4.5.1 - Is there adequate knowledge (scientific or traditional) about the values of the World Heritage property to support planning, management and decision-making to ensure that Outstanding Universal Value is maintained?

Knowledge about the values of the World Heritage property is **sufficient** for most key areas **but there are gaps**

4.5.2 - Is there a planned programme of research at the property which is directed towards management needs and / or improving understanding of Outstanding Universal Value?

There is a **comprehensive, integrated programme of research**, which is relevant to management needs and / or improving understanding of Outstanding Universal Value

4.5.3 - Are results from research programmes disseminated?

Research results are **shared widely** with the local, national and international audiences

4.5.4 - Please provide details (i.e. authors, title, and web link) of papers published about the World Heritage property since the last Periodic Report

Typically about one third are focused on volcanology, with the remainder focused on the evolution and ecology of native biota, characterization of plant and animal communities and the impacts of introduced species. The complete list of 566 research permits issued since 2001 is available on <http://science.nature.nps.gov/research/ac/ResearchIndex>. Examples of gaps are climate change research/data.

4.5.5 - Comments, conclusions and / or recommendations related to scientific studies and research projects

Examples: Volcanism in Hawaii-Volume I and II Eruptive history and long-term behavior of Kilauea Volcano Stratigraphy and petrology of Uwekahuna Bluff section of Kilauea Caldera the site's volcanoes and the biological and cultural diversity and ecosystems have been studied since the mid-1800's. The site is internationally renowned. We do not have a complete bibliography in the park.

4.6. Education, Information and Awareness Building

4.6.1 - At how many locations is the World Heritage emblem displayed at the property?

In **many locations and easily visible** to visitors

4.6.2 - Please rate the awareness and understanding of the existence and justification for inscription of the World Heritage property amongst the following groups

Local communities / residents	Excellent
Local / Municipal authorities within or adjacent to the property	Excellent
Local Indigenous peoples	Excellent
Local landowners	Average

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Visitors	Average
Tourism industry	Excellent
Local businesses and industries	Average

4.6.3 - Is there a planned education and awareness programme linked to the values and management of the World Heritage property?

There is a planned education and awareness programme but it only **partly meets the needs** and could be improved

4.6.4 - What role, if any, has designation as a World Heritage property played with respect to education, information and awareness building activities?

World Heritage status has influenced education, information and awareness building activities, **but it could be improved**

4.6.5 - How well is the information on Outstanding Universal Value of the property presented and interpreted?

The Outstanding Universal Value of the property is adequately presented and interpreted **but improvements could be made**

4.6.6 - Please rate the adequacy for education, information and awareness building of the following visitor facilities and services at the World Heritage property

Visitor centre	Excellent
Site museum	Excellent
Information booths	Adequate
Guided tours	Adequate
Trails / routes	Excellent
Information materials	Excellent
Transportation facilities	Not needed
Other	Not needed

4.6.7 - Comments, conclusions and / or recommendations related to education, information and awareness building

4.6.3-4.6.5 Education specialist position is currently vacant and there is no funding to support it. Education and interpretation are key tools that help the park achieve the mission of protecting our resources. Lack of access to critical information and inadequate staffing make it difficult to build a constituency and increase support of park resources and protection.

4.7. Visitor Management

4.7.1 - Please provide the trend in annual visitation for the last five years

Last year	Minor Increase
Two years ago	Minor Increase
Three years ago	Static
Four years ago	Static
Five years ago	Decreasing

4.7.2 - What information sources are used to collect trend data on visitor statistics?

Entry tickets and registries
Accommodation establishments
Tourism industry
Visitor surveys

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4.7.3 - Visitor management documents

Comment

Visitor Use is part of park management documents, including General Management Plans. These plans offer the visitors an opportunity to witness first-hand the active volcanoes, biodiversity and cultural richness of the park while encouraging enjoyment, understanding and stewardship of these resources. The GMP will provide a framework for park management to use when making decisions about visitor use and experience at various park sites incorporating visitor demand and resource sensitivity.

4.7.4 - Is there an appropriate visitor use management plan (e.g. specific plan) for the World Heritage property which ensures that its Outstanding Universal Value is maintained?

Visitor use of the World Heritage property is managed but **improvements could be made**

4.7.5 - Does the tourism industry contribute to improving visitor experiences and maintaining the values of the World Heritage property?

There is **excellent co-operation** between those responsible for the World Heritage property and the tourism industry to present the Outstanding Universal Value and increase appreciation

4.7.6 - If fees (i.e. entry charges, permits) are collected, do they contribute to the management of the World Heritage property?

The fee is collected and makes a **substantial contribution** to the management of the World Heritage property

4.7.7 - Comments, conclusions and / or recommendations related to visitor use of the World Heritage property

A new General Management Plan will be completed in 2014. It will provide a framework for park managers to use when making decisions about visitor use in different areas of the park by identifying the appropriate types of visitor use and experience at various park sites incorporating visitor demand and resource sensitivity. The plan will also provide guidance to promote and evaluate appropriate and desired types and levels of visitation, including managing various types of recreation.

4.8. Monitoring

4.8.1 - Is there a monitoring programme at the property which is directed towards management needs and / or improving understanding of Outstanding Universal Value?

There is a **comprehensive, integrated programme** of monitoring, which is relevant to management needs and / or improving understanding of Outstanding Universal Value

4.8.2 - Are key indicators for measuring the state of conservation used to monitor how the Outstanding Universal Value of the property is maintained?

Information on the values of the World Heritage property is **sufficient** for defining and monitoring key indicators for measuring its state of conservation

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4.8.3 - Please rate the level of involvement in monitoring of the following groups

World Heritage managers / coordinators and staff	Excellent
Local / Municipal authorities	Average
Local communities	Average
Researchers	Excellent
NGOs	Excellent
Industry	Average
Local indigenous peoples	Excellent

4.8.4 - Has the State Party implemented relevant recommendations arising from the World Heritage Committee?

Implementation is **complete**

4.8.5 - Please provide comments relevant to the implementation of recommendations from the World Heritage Committee

4.8.6 - Comments, conclusions and / or recommendations related to monitoring

4.9. Identification of Priority Management Needs

4.9.1 - Please select the top 6 managements needs for the property (if more than 6 are listed below)

Please refer to question 5.2

5. Summary and Conclusions

5.1. Summary - Factors affecting the Property

5.1.1 - Summary - Factors affecting the Property

		World Heritage criteria and attributes affected	Actions	Monitoring	Timeframe	Lead agency (and others involved)	More info / comment
3.2	Transportation Infrastructure						
3.2.4	Effects arising from use of transportation infrastructure	VIII	The new GMP will address a range of transportation methods and circulation patterns and identify approaches to visitor access that will improve visitor experiences, connect park sites and provide larger access.	Ongoing. Parking lots, park roads and trails and transportation methods are being evaluated for implementation in relationship to visitor needs, commercial-use trends, resource protection and alternative climate-friendly modes of transportation.	2 years to complete GMP. Implementation schedule will be outlined in that document.	National Park Service Federal Highways Administration	Current transportation options and infrastructure do not support the high level of visitation at the park and results in congestion and resource impacts at popular sites. Volcanic events have closed park roads and disrupt established travel patterns.
3.7	Local conditions affecting physical fabric						
3.7.3	Temperature	VIII	Proactive planning and management actions will allow the park to adjust to climate change and interpret changing conditions while reducing impacts to park resources, NPS operations and visitors. New GMP will provide guidance for implementation	Ongoing. The park is currently assessing and interpreting the impacts of global climate change on fundamental resources, developing research projects and collecting data. Park has mitigated it's impact on carbon footprint and energy use.	Ongoing-current and future. Research projects are being developed for funding, as well as partnerships with other agencies and organizations, including international organizations and WH sites.	National Park Service US Fish and Wildlife; Three Mountain Alliance; Hawaii Conservation Association; USGS Biological Resources Division; University of Haw; Kupuna; Nature Conservancy; Trust for Public Land; international WH sites and organizations	The effects of global climate change are anticipated to include changes in local weather patterns, wildfire and hurricane frequency, sea levels and ocean resources, distribution of plant and animal communities and increased avian disease.
3.7.6	Water (rain/water table)	VIII Note: there are no permanent streams in the park, and minimal surface waters. The park is terrestrial with no jurisdiction over ocean waters.	The site is part of a consortium of partner organizations and land management agencies known as the Three Mountain Alliance, the largest cooperative land management effort focused on watershed protection in Hawaii. Partner lands surround the site.	Ongoing. Volcanic topography supports one of the most fascinating biological landscapes in world. Trade winds create moisture that, in turn, sustain diverse populations of plant and animal communities across seven ecological zones; 90% are endemic.	Ongoing	National Park Service Three Mountain Alliance Many other partner organizations, both national and international	Due to the diversity of life, its distinction on the planet, the site is a fantastic laboratory for study of biogeography and evolution in the Pacific Islands and a cornerstone for recovery of native Hawaiian species found nowhere else in the world.
3.11	Sudden ecological or geological events						
3.11.1	Volcanic eruption	VIII	The volcanoes in the park, and related science, inform park management decisions. Additionally the geologic processes that are part of the active volcanism are sometimes hazardous. Safe access to lava viewing and the story are primary park goals.	On-going	In perpetuity!	National Park Service USGS-Hawaiian Volcanoes Observatory	The purpose of the park is to protect, study and provide access to Kilauea and Mauna Loa, two of the world's most active volcanoes, and to perpetuate endemic Hawaiian ecosystems and traditional Hawaiian culture connected to these landscapes.
3.11.2	Earthquake	VIII	Natural disaster we have no control over, particularly in a volcanic park. Some quakes are caused by volcanic plate shifting. Park has emergency response and communication plans and works closely with county and state civil defense. other responder	Volcanic activity is monitored 24-7.	On-going	National Park Service USGS-HVO Hawaii State Civil Defense	None/

5.2. Summary - Management Needs

5.2.2 - Summary - Management Needs

Answers provided have not outlined any serious management need.

5.3. Conclusions on the State of Conservation of the Property

5.3.1 - Current state of Authenticity

Not applicable (for sites inscribed exclusively under criteria vii to x)

5.3.2 - Current state of Integrity

The integrity of the World Heritage property is **intact**

5.3.3 - Current state of the World Heritage property's Outstanding Universal Value

The World Heritage property's Outstanding Universal Value has been **maintained**.

5.3.4 - Current state of the property's other values

Other important cultural and / or natural values and the state of conservation of the World Heritage property are **predominantly intact**

5.4. Additional comments on the State of Conservation of the Property

5.4.1 - Comments

6. World Heritage Status and Conclusions on Periodic Reporting Exercise

6.1 - Please rate the impacts of World Heritage status of the property in relation to the following areas

Conservation	Very positive
Research and monitoring	Very positive
Management effectiveness	Very positive
Quality of life for local communities and indigenous peoples	Very positive
Recognition	Very positive
Education	Very positive
Infrastructure development	Positive
Funding for the property	No impact
International cooperation	Very positive
Political support for conservation	Very positive
Legal / Policy framework	Very positive
Lobbying	Not applicable
Institutional coordination	Very positive
Security	Positive
Other (please specify)	Not applicable

6.2 - Comments, conclusions and / or recommendations related to World Heritage status

In addition to the World Heritage designation, Hawaii Volcanoes is an International Biosphere Reserve, identifying the park as an internationally significant ecosystem within the world's biogeographical provinces. Very few areas in the United States are designated as both a Biosphere Reserve and World Heritage Site and these protections. With the exception of funding, these designations contribute positively to the above listed areas.

6.3 - Entities involved in the preparation of this Section of the Periodic Report

Governmental institution responsible for the property
Site Manager/Coordinator/World Heritage property staff
Indigenous peoples

6.4 - Was the Periodic Reporting questionnaire easy to use and clearly understandable?

yes

6.5 - Please provide suggestions for improvement of the Periodic Reporting questionnaire

The factors and assessments sections were a bit cumbersome and could be streamlined..

6.6 - Please rate the level of support for completing the Periodic Report questionnaire from the following entities

UNESCO	Very good
State Party Representative	Very good
Advisory Body	Very good

6.7 - How accessible was the information required to complete the Periodic Report?

All required information was accessible

6.8 - The Periodic Reporting process has improved the understanding of the following

The World Heritage Convention
The concept of Outstanding Universal Value
The property's Outstanding Universal Value
The concept of Integrity and / or Authenticity
The property's Integrity and / or Authenticity
Managing the property to maintain the Outstanding Universal Value
Monitoring and reporting
Management effectiveness

6.9 - Please rate the follow-up to conclusions and recommendations from previous Periodic Reporting exercise by the following entities

UNESCO	Excellent
State Party	Excellent
Site Managers	Excellent
Advisory Bodies	Not Applicable

6.10 - Summary of actions that will require formal consideration by the World Heritage Committee

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6.11 - Comments, conclusions and / or recommendations related to the Assessment of the Periodic Reporting exercise