Pontcysyllte Aqueduct and Canal

1. World Heritage Property Data

1.1 - Name of World Heritage property

Pontcysyllte Aqueduct and Canal

1.2 - World Heritage property details

1.3 - Geographic information table

Name	Coordinates	Property (ha)	Buffer zone (ha)	Total (ha)	Inscription year
Pontcysyllte Aqueduct and Canal	52.97 / -3.088	105	4145	4250	2009
Total (ha)		105	4145	4250	
1.4 - Map(s)					
Title			Date	Link to s	ource
Pontcysyllte Aqueduct and Canal - inscribed property			2008		

Comment

The World Heritage Centre identified in December 2022 that they did not hold an up-to-date clear map which showed the delimitation of the property. We are in the process of producing the requested map in line with the WHC's technical requirements, with support from Historic England and CADW. It will be submitted for the approval of the World Heritage Committee in advance of 46COM along with others from the UK State Party.

1.5 - Web and Social Media data of the property (if applicable)

1. Pontcysyllte Aqueduct & Canal

2. Other Conventions/Programmes under which the World Heritage property is protected (if applicable)

2.1 - Records indicate that your World Heritage property (in whole or in part) is designated and/or protected under the Conventions/programmes shown in the prefilled table below. Please check and amend as necessary.

		The World Heritage property (in whole or in part) <u>is</u> designated and/or protected under this convention/programme	The World Heritage property (in whole or in part) <u>is not</u> designated and/or protected under this convention/programme
2.1.1	International Register of Cultural Property under Special Protection (1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict)		×
2.1.2	List of Cultural Property under Enhanced Protection (Second Protocol to the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict)		×
2.1.3	The List of Wetlands of International Importance (The Ramsar List) (Convention on Wetlands of International Importance (Ramsar Convention))		×
2.1.4	World Network of Biosphere Reserves Man and the Biosphere (MAB) Programme		×
2.1.5	Global Geoparks Network UNESCO Global Geoparks		×

2.2 - Please provide comments on 2.1 if necessary

2.3 - Do your national authorities intend to request the granting of Enhanced Protection (if relevant) under the Second Protocol to the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict for the World Heritage property in the next three years?

No

2.4 - Do your national authorities intend to designate whole or part of the World Heritage property for inclusion in the List of Wetlands of International Importance (The Ramsar List), if relevant, in the next three years?

2.5 - Do your national authorities intend to designate whole or part of the World Heritage property as a Man and Biosphere Reserve (if relevant) in the next three years?

No

2.6 - Do your national authorities intend to apply for whole or part of World Heritage property to be designated as a UNESCO Global Geopark (if relevant) in the next three years?

No

2.7.1	1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict	
2.7.1	There is no contact with the Focal Point(s) of this designation/programme.	×
2.7.2	The World Heritage Site Manager occasionally communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager regularly communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager also manages this designation/programme.	
2.7.2	Second Protocol to the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict	
2.7.1	There is no contact with the Focal Point(s) of this designation/programme.	×
2.7.2	The World Heritage Site Manager occasionally communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager regularly communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager also manages this designation/programme.	
2.7.3	Convention on Wetlands of International Importance (Ramsar Convention)	
2.7.1	There is no contact with the Focal Point(s) of this designation/programme.	×
2.7.2	The World Heritage Site Manager occasionally communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager regularly communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager also manages this designation/programme.	
2.7.4	Man and the Biosphere (MAB) Programme	
2.7.1	There is no contact with the Focal Point(s) of this designation/programme.	×
2.7.2	The World Heritage Site Manager occasionally communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager regularly communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager also manages this designation/programme.	
2.7.5	UNESCO Global Geoparks	
2.7.1	There is no contact with the Focal Point(s) of this designation/programme.	×
2.7.2	The World Heritage Site Manager occasionally communicates with the Focal Point(s) of this designation/programme.	
2.7.3	The World Heritage Site Manager regularly communicates with the Focal Point(s) of this designation/programme.	
2.7.4	The World Heritage Site Manager also manages this designation/programme.	

2.7 - Please indicate the level of cooperation at property level between designations under different Conventions/Programmes

2.8 - Please add any further comments on cooperation with the other designation(s)/programme(s)

Much of the property and buffer zone of our WHS is the Dee Valley and Clwydian AONB. Work closely with this Programme for mutual benefit of the WHS and AONB.

2.9 - Are you aware of any elements associated with the World Heritage property that have been inscribed on the Representative List of the Intangible Cultural Heritage?

No

2.10 - Please list any elements associated with the World Heritage property inscribed under the Convention for the Safeguarding of the Intangible Cultural Heritage of which you are aware

2.11 - Are you aware of any documentary heritage listed under the Memory of the World Programme associated with the World Heritage property?

No

2.12 - Please list any documentary heritage associated with the World Heritage property listed under the Memory of the World Programme of which you aware.

3. Statement of Outstanding Universal Value

3.1 - Statement of Outstanding Universal Value for the property as adopted by the World Heritage Committee

Statement of Outstanding Universal Value

The Pontcysyllte Canal is a remarkable example of the construction of a human-engineered waterway in a difficult geographical environment, at the end of the 18th century and the start of the 19th century. It required extensive and boldly conceived civil engineering works. The Pontcysyllte Aqueduct is a pioneering masterpiece of engineering and monumental architecture by the famous civil engineer Thomas Telford. It was constructed using metal arches supported by tall, slender masonry piers. The Pontcysyllte Aqueduct and Canal are early and outstanding examples of the innovations brought about by the Industrial Revolution in Britain, where they made decisive development in transport capacities possible. They bear witness to very substantial international interchanges and influences in the fields of inland waterways, civil engineering, land-use planning, and the application of iron in structural design.

Criterion (i): The Pontcysyllte Aqueduct is a highly innovative monumental civil engineering structure, made using metal arches supported by high, slender masonry piers. It is the first great masterpiece of the civil engineer Thomas Telford and formed the basis of his outstanding international reputation. It bears witness to the production capacities of the British ironmaking industry, which were unique at that time.

Criterion (ii): The intensive construction of canals in Great Britain, from the second half of the 18th century onwards, and that of the Pontcysyllte Canal in particular in a difficult region, bear witness to considerable technical interchanges and decisive progress in the design and construction of artificial waterways.

Criterion (iv): The Pontcysyllte Canal and its civil engineering structures bear witness to a crucial stage in the development of heavy cargo transport in order to further the Industrial Revolution. They are outstanding representatives of its new technical and monumental possibilities.

Integrity and authenticity

The integrity of the waterway has been maintained in hydraulic and civil-engineering structures that have remained in their original form. However, the historic embankments, made of rubble, have raised significant problems of stability and waterproofing, particularly in the second half of the 20th century. The repairs have involved the use of technical solutions that are different from the simple initial backfills, both for structural resistance and waterproofing: concrete, steel pilings, geotextiles, etc. From the point of view of integrity, these works have made it possible to maintain the hydraulic operation of the waterway and to conserve its overall morphological characteristics. The integrity of the landscapes and the buffer zone of the property contributes to the expression of the value of the property. The property has all the elements of integrity necessary for the expression of its value, as a major historic canal of the Industrial Revolution. The few structural changes that have been made to the two large aqueducts have remained secondary, contributing to maintaining the property in use. Changes in materials have remained restricted over the history of the property. During the 20th century repairs to masonry did not always use the original types of mortar or stone. The buildings associated with the canal and its immediate environment usually achieve a good degree of authenticity.

Protection and management requirements

The technical and monumental management by British Waterways is satisfactory. The management plan is acceptable; it clearly defines the objectives of conservation, but it would be improved by a unified approach to the preservation of the buffer zone and the drafting of a plan for tourism development and site interpretation.

Comment

Within the Protection and Management requirements section of the OUV statement 'British Waterways' are mentioned. British Waterways no longer exists and the assets and responsibilities transferred to 'Canal & River Trust'. Therefore in the OUV statement 'British Waterways' should be replaced with 'Canal & River Trust'.

3.2 - Please list the key attributes of Outstanding Universal Value of your property and give an assessment of their condition. As a guideline, it is suggested to focus on approximately five key attributes (no more than 15 overall).

	Brief identification of attribute	Preserved	Compromised	Seriously compromised	Lost
3.2.1	Pontcysyllte and Chirk Aqueducts	×			
3.2.2	Horseshoe Falls	×			
3.2.3	Whitehouse and Chirk Tunnels	×			
3.2.4	Embankments, earthworks formations	×			
3.2.5	Located within AONB	×			
3.2.6	Thomas Telford and William Jessop	×			
3.2.7		×			
3.2.8					
3.2.9					
3.2.10					
3.2.11					
3.2.12					
3.2.13					
3.2.14					
3.2.15					

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

No further updates to the SOUV have been made since inscription in 2009. The ongoing work of the Management Board and sub-groups has maintained the OUV of the WHS and ongoing work and investment will enhance the OUV over the coming years.

4. Factors Affecting the Property

4.1. Buildings and Development

4.1.1 - Housing

Previous answer Cycle 2 (30/07/2013):

• Relevant, Positive, Potential, Outside

X Relevant				Not relevant				
	Impact		Origin		Trend of impact			
Impact	Gurrent	Potential	 Inside 	C Outside	> Decreasing	⇒ Stable	Increasing	
O Positive X		×		×		\rightarrow		
Negative								

4.1.2 - Commercial development

- Previous answer Cycle 2 (30/07/2013):
 - Relevant, Negative, Potential, Outside

X Relevant				Not relevant				
	Impact		Origin		Trend of impact			
Impact	Gurrent	Potential	 Inside 	Cutside	> Decreasing	⇒ Stable	Increasing	
O Positive X		×	×	×		\rightarrow		
Negative X		×		×				

4.1.3 - Industrial areas

Previous answer Cycle 2 (30/07/2013):

• Relevant, Negative, Potential, Outside

X Relevant				Not relevant				
	Impact		Origin		Trend of impact			
Impact	4 Current	Potential	Inside	Cutside	> Decreasing	⇒ Stable	Increasing	
O Positive								
Negative X	×	×		×				

4.1.4 - Major visitor accommodation and associated infrastructure

Previous answer Cycle 2 (30/07/2013):

• Relevant, Positive, Potential, Outside

X Relevant				Not relevant				
	Impact		Origin		Trend of impact			
Impact	4 Current	9 Potential	Inside	Outside	> Decreasing	⇒ Stable	Increasing	
O Positive X	×	×		×			1	
Negative								

4.1.5 - Interpretative and visitation facilities

Previous answer Cycle 2 (30/07/2013):

Relevant, Positive, Current, Inside, Outside

X Relevant				Not relevant			
	Impact		Origin		Trend of impact		
Impact	4 Current	9 Potential	 Inside 	C Outside	> Decreasing	⇒ Stable	Increasing
O Positive X	×	×	×	×			
Negative							

4.1.6 - Please comment as necessary on how the factors selected as relevant in 4.1 are affecting the property either negatively or positively

Limited and controlled housing and commercial development taken place within the WHS buffer zone since the last review, therefore skyline and OUV maintained. Some industrial development has taken place in a small section of the WHS buffer zone in the Chirk area causing a negative effect. Ongoing development of this site is planned by the company, this will be monitored closely so not to affect the OUV. Creation of caravan/ camping site adjacent to WHS on the outskirts of Llangollen a positive.

4.2. Transportation Infrastructure

4.2.1 - Ground transport infrastructure

Previous answer Cycle 2 (30/07/2013):

• Relevant, Positive, Potential, Outside

X Relevant				Not relevant				
	Impact		Origin		Trend of impact			
Impact	4 Current	9 Potential	Inside	Cutside	> Decreasing	⇒ Stable	Increasing	
O Positive X	×	×	×	×				
Negative X	×			×			1	

4.2.2 - Underground transport infrastructure

Previous answer Cycle 2 (30/07/2013):

Not relevant

Relevant	
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× Not relevant

4.2.3 - Air transport infrastructure

Previous answer Cycle 2 (30/07/2013):

Not relevant

Relevant

× Not relevant

4.2.4 - Marine transport infrastructure

Previous answer Cycle 2 (30/07/2013):

• Relevant, Negative, Current, Potential, Outside

X Relevant				Not relevant				
	Impact		Origin		Trend of impact			
Impact	Gurrent	Potential	 Inside 	Cutside	> Decreasing	⇒ Stable	Increasing	
O Positive X		×	×					
Negative X	×		×			\rightarrow		

4.2.5 - Effects arising from use of transportation infrastructure

Previous answer Cycle 2 (30/07/2013):

Not relevant

X Relevant			I	Not relevant			
	Impact Or		Origin		Trend of impact		
Impact	4 Current	9 Potential	 Inside 	Cutside	> Decreasing	⇒ Stable	Increasing
O Positive							
Negative X	×			×			1

4.2.6 - Please comment as necessary on how the factors selected as relevant in 4.2 are affecting the property either negatively or positively

Parking issues in various locations, most notably Trevor Basin, Horseshoe Falls and Froncyslite. Increased use of the waterway causing mooring issues and congestion on the canal at peak season.

4.3. Services Infrastructures

4.3.1 - Water infrastructure

Previous answer Cycle 2 (30/07/2013):

• Relevant, Positive, Potential, Inside, Outside

× Relevant

	Impact		Origin		Trend of impact		
Impact	4 Current	9 Potential	Inside	Cutside	Solution Decreasing	⇒ Stable	Increasing
O Positive X	×	×	×			→	
Negative							

4.3.2 - Renewable energy facilities

Previous answer Cycle 2 (30/07/2013):

• Relevant, Positive, Negative, Potential, Outside

× Relevant			1	Not relevant			
	Impact Origin		Origin		Trend of impact		
Impact	4 Current	Potential	 Inside 	Cutside	Secreasing	⇒ Stable	Increasing
O Positive X		×		×			1
Negative							

4.3.3 - Non-renewable energy facilities

Previous answer Cycle 2 (30/07/2013):

Not relevant

Relevant	X Not relevant
4.3.4 - Localised utilitiesPrevious answer Cycle 2 (30/07/2013):Not relevant	
Relevant	X Not relevant
 4.3.5 - Major linear utilities Previous answer Cycle 2 (30/07/2013): Not relevant 	
Relevant	X Not relevant

4.3.6 - Please comment as necessary on how the factors selected as relevant in 4.3 are affecting the property either negatively or positively

No significant change since previous periodic reporting

4.4. Pollution

4.4.1 - Pollution of marine waters

- Previous answer Cycle 2 (30/07/2013):
 - Not relevant

Relevant

× Not relevant

4.4.2 - Ground water pollution

Previous answer Cycle 2 (30/07/2013):

Not relevant

X Relevant			Not relevant				
	Impact Origin		Origin	Trend of impact			
Impact	4 Current	9 Potential	 Inside 	C Outside	> Decreasing	⇒ Stable	Increasing
O Positive							
Negative X		×	×	×		→	
4.4.3 - Surface water pollut Previous answer Cycle 2 (30/07/ • Not relevant							
X Relevant				Not relevant			

Trend of impact

Origin

Impact	4 Current	9 Potential	 Inside 	C Outside	Secreasing	⇒ Stable	Increasing			
O Positive										
Negative X		×		×		\rightarrow				
 4.4.4 - Air pollution Previous answer Cycle 2 (30/07/2013): Not relevant 										
× Relevant				Not relevant						
	Impact Origin		Origin	Drigin Trend of impact						
Impact	Current	9 Potential	 Inside 	C Outside	> Decreasing	⇒ Stable	Increasing			
O Positive										
Negative X	×			×	8					
 4.4.5 - Solid waste Previous answer Cycle 2 (30/07/2013): Not relevant 										
Relevant			X Not relevant							
Relevant			4.4.6 - Input of excess energy Previous answer Cycle 2 (30/07/2013): • Not relevant							

Relevant

× Not relevant

4.4.7 - Please comment as necessary on how the factors selected as relevant in 4.4 are affecting the property either negatively or positively

Property not currently affected significantly by issues raised in section 4.4. Litter from visitors can be unsightly but measures are in place to manage. Surface water pollution is a potential risk to the canal from agricultural run-off and diesel spills from boats etc. Dust produced from Industrial process in Chirk.

4.5. Biological resource use/modification

4.5.1 - Fishing/collecting aquatic resources

Previous answer Cycle 2 (30/07/2013):

Not relevant

Relevant	X Not relevant
4.5.2 - AquaculturePrevious answer Cycle 2 (30/07/2013):Not relevant	
Relevant	X Not relevant
 4.5.3 - Land conversion Previous answer Cycle 2 (30/07/2013): Not relevant 	
Relevant	X Not relevant
 4.5.4 - Livestock farming/Grazing of domesticated animals Previous answer Cycle 2 (30/07/2013): Not relevant 	
Relevant	X Not relevant
 4.5.5 - Crop production Previous answer Cycle 2 (30/07/2013): Relevant, Negative, Current, Potential, Inside 	
Relevant	X Not relevant
4.5.6 - Commercial wild plant collection Previous answer Cycle 2 (30/07/2013):	

Not relevant

Relevant	X Not relevant
 4.5.7 - Subsistence wild plant collection Previous answer Cycle 2 (30/07/2013): Not relevant 	
Relevant	X Not relevant
4.5.8 - Commercial huntingPrevious answer Cycle 2 (30/07/2013):Not relevant	
Relevant	X Not relevant
 4.5.9 - Subsistence hunting Previous answer Cycle 2 (30/07/2013): Not relevant 	
Relevant	X Not relevant
 4.5.10 - Forestry/Wood production Previous answer Cycle 2 (30/07/2013): Not relevant 	
Relevant	X Not relevant
4.5.11 - Please comment as necessary on how the factors positively	selected as relevant in 4.5 are affecting the property either negatively or

4.6. Physical resource extraction

4.6.1 - Mining

- Previous answer Cycle 2 (30/07/2013):
 - Not relevant

Relevant	X Not relevant
4.6.2 - QuarryingPrevious answer Cycle 2 (30/07/2013):Not relevant	
Relevant	X Not relevant
4.6.3 - Oil and gasPrevious answer Cycle 2 (30/07/2013):Not relevant	
Relevant	X Not relevant
 4.6.4 - Water (extraction) Previous answer Cycle 2 (30/07/2013): Not relevant 	
Relevant	X Not relevant

4.6.5 - Please comment as necessary on how the factors selected as relevant in 4.6 are affecting the property either negatively or positively

4.7. Local conditions affecting physical fabric

4.7.1 - Wind

- Previous answer Cycle 2 (30/07/2013):
 - Not relevant

Relevant

× Not relevant

4.7.2 - Relative humidity

Previous answer Cycle 2 (30/07/2013):

Not relevant

Relevant

× Not relevant

4.7.3 - Temperature

Previous answer Cycle 2 (30/07/2013):

Not relevant

X Not relevant
X Not relevant

4.7.9 - Please comment as necessary on how the factors selected as relevant in 4.7 are affecting the property either negatively or positively

4.8. Social/Cultural uses of heritage

4.8.1 - Ritual/Spiritual/Religious and associative uses

Previous answer Cycle 2 (30/07/2013):

Not relevant

Relevant			× Not releva	X Not relevant					
 4.8.2 - Society's valuing of Previous answer Cycle 2 (30/07// Relevant, Positive, Current 	2013):	e, Outside							
X Relevant				Not relevant					
	Impact		Origin		Trend of impact				
Impact	4 Current	9 Potential	 Inside 	C Outside	Secreasing	⇒ Stable	Increasing		
O Positive X	×	×	×	×					
Negative									
 4.8.3 - Indigenous hunting, Previous answer Cycle 2 (30/07/2 Not relevant 		l collecting							
Relevant	Relevant X Not relevant								
4.8.4 - Changes in tradition Previous answer Cycle 2 (30/07/2	-	and knowledge	system						

• Relevant, Positive, Current, Potential, Inside, Outside

× Relevant

	Impact		Origin		Trend of impact		
Impact	4 Current	Potential	Inside	Cutside	Solution Decreasing	⇒ Stable	Increasing
O Positive X	×	×	×	×			
Negative							

4.8.5 - Identity, social cohesion, changes in local population and community

Previous answer Cycle 2 (30/07/2013):

Not relevant

Relevant	× Not relevant

4.8.6 - Impacts of tourism/Visitation/Recreation

Previous answer Cycle 2 (30/07/2013):

• Relevant, Positive, Negative, Current, Potential, Inside, Outside

X Relevant				Not relevant			
	Impact Or		Origin		Trend of impact		
Impact	4 Current	Potential	Inside	C Outside	> Decreasing	⇒ Stable	Increasing
O Positive X	×	×	×	×			1

4.8.7 - Please comment as necessary on how the factors selected as relevant in 4.8 are affecting the property either negatively or positively

Visitor numbers to the WHS continue to increase year on year. This is clearly a positive in terms of sharing knowledge and showcasing the heritage of the site. These increased visitors also generate economic value to the area and help support local businesses. The negative aspect of the increased visitor numbers is the affect on local communities in terms of increased traffic and parking issues.

4.9. Other human activities

4.9.1 - Illegal activities

Previous answer Cycle 2 (30/07/2013):

Not relevant

Relevant

× Not relevant

4.9.2 - Deliberate destruction of heritage

Previous answer Cycle 2 (30/07/2013):

• Relevant, Negative, Current, Potential, Inside, Outside

X Relevant				Not relevant			
	Impact C		Origin		Trend of impact		
Impact	4 Current	Potential	 Inside 	C Outside	Solution Decreasing	⇒ Stable	Increasing
O Positive							
Negative X	×	×	×	×		→	
4.9.3 - Military training							

Previous answer Cycle 2 (30/07/2013):

Not relevant

Relevant	X Not relevant
4.9.4 - War	
Previous answer Cycle 2 (30/07/2013): • Not relevant	
Relevant	X Not relevant
 4.9.5 - Terrorism Previous answer Cycle 2 (30/07/2013): Not relevant 	

Relevant

× Not relevant

4.9.6 - Civil unrest

4.9.6 - Civil unrest	
Previous answer Cycle 2 (30/07/2013): • Not relevant	
Relevant	X Not relevant
 4.9.7 - Please comment as necessary on how the factors positively Vandalism and graffiti at a very low level consistent with previous yee 4.10. Climate change and severe weather events 4.10.1 - Storms Previous answer Cycle 2 (30/07/2013): Not relevant 	s selected as relevant in 4.9 are affecting the property either negatively or ars
Relevant	X Not relevant
 4.10.2 - Flooding Previous answer Cycle 2 (30/07/2013): Relevant, Positive, Current, Potential, Inside 	
Relevant	X Not relevant
4.10.3 - DroughtPrevious answer Cycle 2 (30/07/2013):Not relevant	
Relevant	X Not relevant
4.10.4 - DesertificationPrevious answer Cycle 2 (30/07/2013):Not relevant	
Relevant	X Not relevant
 4.10.5 - Changes to oceanic waters Previous answer Cycle 2 (30/07/2013): Not relevant 	
Relevant	X Not relevant
4.10.6 - Temperature changePrevious answer Cycle 2 (30/07/2013):Not relevant	
Relevant	X Not relevant
 4.10.7 - Other climate change impacts Previous answer Cycle 2 (30/07/2013): Not relevant 	
Relevant	X Not relevant
4.10.8 - Please comment as necessary on how the facto positively	rs selected as relevant in 4.10 are affecting the property either negatively or
4.11. Sudden ecological or geological events	
 4.11.1 - Volcanic eruption Previous answer Cycle 2 (30/07/2013): Not relevant 	
Relevant	X Not relevant
4.11.2 - Earthquake Previous answer Cycle 2 (30/07/2013):	

Not relevant

Relevant

× Not relevant

4.11.3 - Tsunami/Tidal wave

Previous answer Cycle 2 (30/07/2013):

Not relevant	,									
Relevant			× Not relevan	X Not relevant						
4.11.4 - Avalanche/Landsli Previous answer Cycle 2 (30/07 • Not relevant										
X Relevant				Not relevant						
	Impact		Origin		Trend of impact					
Impact	4 Current	9 Potential	 Inside 	C Outside	> Decreasing	⇒ Stable	Increasing			
O Positive										
Negative X		×	×			\rightarrow				
Previous answer Cycle 2 (30/07	 4.11.5 - Erosion and siltation/Deposition Previous answer Cycle 2 (30/07/2013): Relevant, Negative, Potential, Inside 									
X Relevant				Not relevant						
	Impact		Origin		Trend of impact					
Impact	4 Current	9 Potential	Inside	Coutside	Solution Decreasing	⇒ Stable	Increasing			
O Positive										

4.11.6 - Fire (wildfire)

Previous answer Cycle 2 (30/07/2013):

Not relevant

Negative X

X Relevant			1	Not relevant			
	Impact		Origin		Trend of impact		
Impact	4 Current	Potential	Inside	Outside	> Decreasing	⇒ Stable	Increasing
O Positive							
Negative X		×	×	×		→	

4.11.7 - Please comment as necessary on how the factors selected as relevant in 4.11 are affecting the property either negatively or positively

Although most of the canal has concrete sides there are sections that have soil/rock side that are affected by erosion. This is monitored and managed by CRT. Wildfire is a potential risk on embankment of WHS and buffer zone. Landslide of embankment could result in canal bursting its banks. This risk is monitored and managed and no such event has happened in the last 40 years.

4.12. Invasive/alien species or hyper-abundant species

4.12.1 - Translocated species

Previous answer Cycle 2 (30/07/2013):

Not relevant

Relevant

× Not relevant

4.12.2 - Invasive/Alien terrestrial species

- Previous answer Cycle 2 (30/07/2013):
 - Relevant, Negative, Current, Inside, Outside

X Relevant				Not relevant				
	Impact C		Origin		Trend of impact			
Impact	4 Current	9 Potential	Inside	C Outside	> Decreasing	⇒ Stable	Increasing	
O Positive								
Negative X	×	×	×	×		\rightarrow		

4.12.3 - Invasive/Alien freshwater species

Previous answer Cycle 2 (30/07/2013):

Not relevant

Relevant	X Not relevant
 4.12.4 - Invasive/Alien marine species Previous answer Cycle 2 (30/07/2013): Not relevant 	
Relevant	X Not relevant
 4.12.5 - Hyper-abundant species Previous answer Cycle 2 (30/07/2013): Not relevant 	
Relevant	X Not relevant
 4.12.6 - Modified genetic material Previous answer Cycle 2 (30/07/2013): Not relevant 	
Relevant	X Not relevant

4.12.7 - Please comment as necessary on how the factors selected as relevant in 4.12 are affecting the property either negatively or positively

Continue to monitor levels of mink within the WHS. Requirement to remove Japanese Knotweed with the understanding that this can't be fully eradicated, but will be part of an ongoing management Programme to assess and monitor.

4.13. Management and institutional factors

4.13.1 - Management system/Management plan

X Relevant			I	Not relevant			
	Impact O		Origin		Trend of impact		
Impact	4 Current	Potential	Inside	Cutside	> Decreasing	⇒ Stable	Increasing
O Positive X	×		×	×			1
Negative							

4.13.2 - Legal framework

X Relevant			١	Not relevant			
	Impact		Origin		Trend of impact		
Impact	4 Current	9 Potential	Inside	Coutside	> Decreasing	⇒ Stable	Increasing
O Positive X	×		×	×		→	
Negative							

4.13.3 - Governance

X Relevant				Not relevant					
	Impact Origin			Trend of impact					
Impact	Current	9 Potential	 Inside 	Cutside	> Decreasing	⇒ Stable	Increasing		
O Positive X	×		×	×		\rightarrow			
Negative									

4.13.4 - Management activities

Previous answer Cycle 2 (30/07/2013):

• Relevant, Positive, Current, Potential, Inside, Outside

× Relevant	Not relevant							
	Impact		Origin		Trend of impact			
Impact	4 Current	9 Potential	 Inside 	C Outside	Secreasing	⇒ Stable	Increasing	

O Positive X	×	×	×	\rightarrow	
Negative					

4.13.5 - Financial resources

× Relevant				Not relevant					
	Impact Origin			Trend of impact					
Impact	4 Current	9 Potential	 Inside 	C Outside	Solution Decreasing	⇒ Stable	Increasing		
O Positive X	×	×	×	×			1		
Negative									

4.13.6 - Human resources

× Relevant				Not relevant			
	Impact		Origin		Trend of impact		
Impact	Current	Potential	 Inside 	C Outside	Solution Decreasing	⇒ Stable	Increasing
Positive X	×		×	×		\rightarrow	
Negative							

4.13.7 - Low impact research/monitoring activities

- Previous answer Cycle 2 (30/07/2013):
 - Relevant, Positive, Current, Potential, Inside, Outside

X Relevant				Not relevant			
	Impact		Origin				
Impact	4 Current	Potential	Inside	C Outside	Secreasing	⇒ Stable	Increasing
O Positive X	×	×	×	×		→	
Negative							

4.13.8 - High impact research/monitoring activities

Previous answer Cycle 2 (30/07/2013):

Not relevant

Relevant

× Not relevant

4.13.9 - Please comment as necessary on how the factors selected as relevant in 4.13 are affecting the property either negatively or positively

Management and institutional factors of the property are in a strong position. The existence of the management board along with its various sub-groups ensures the WHS is protected and the OUV is maintained. The management plan provides us with a work program to enhance the WHS and deliver long-term improvements to the site and buffer zone for the benefit of local communities and visitors alike.

4.14. Other factor(s)

4.14.1 - Other factor(s)

4.15. Factors Summary Table

4.15.1 - Factors Summary Table

Name	Impact			Origin		Trend
4.1 Buildings and Development						
4.1.1 Housing	٢		9		Ċ	→
4.1.2 Commercial development	٢		9	۲	Ċ	→
	0		9		Ċ	
4.1.3 Industrial areas						
	٢	9	9		Ċ	
4.1.4 Major visitor accommodation and associated infrastructure	٢	9	9		٢	

		~~~			~	
4.1.5 Interpretative and visitation facilities	0	4	4	٩	Ċ	-
4.2 Transportation Infrastructure						
4.2.1 Ground transport infrastructure	٢	4	9	٢	Ċ	
	0	4			Ċ	
4.2.4 Marine transport infrastructure	٢		9	۲		
	0	9		۲		<b>→</b>
4.2.5 Effects arising from use of transportation infrastructure						
	0	4			( <b>14</b>	7
4.3 Services Infrastructures					9	
4.3.1 Water infrastructure	٢	4	4	٢		<b>→</b>
4.3.2 Renewable energy facilities	٢		9		Ċ	
4.4 Pollution						
4.4.2 Ground water pollution						
	٢		<i>a</i>	۲	14	_→
			-1		Ģ	-
4.4.3 Surface water pollution						
	0		9		Ċ	<b>→</b>
4.4.4 Air pollution						
	0	4			Ċ	$\mathbf{N}_{i}$
4.8 Social/Cultural uses of heritage						
4.8.2 Society's valuing of heritage	٢	9	9	۲	Ċ	
4.8.4 Changes in traditional ways of life and knowledge system	٢	4	9	٩	Ċ	
4.8.6 Impacts of tourism/Visitation/Recreation	٢	4	9	۲	1	,
	0		9		G	
4.9 Other human activities						
4.9.2 Deliberate destruction of heritage						
	0			۲	100	
4.11 Sudden ecological or geological events	-	-1	-1	ঝ	Ģ	
4.11.4 Avalanche/Landslide						
	9		9	٢		<b>→</b>
4.11.5 Erosion and siltation/Deposition						
	0		9	٢		<b>→</b>
4.11.6 Fire (wildfire)						
	0		9	٢	Ċ	<b>→</b>
4.12 Invasive/alien species or hyper-abundant species						
4.12.2 Invasive/Alien terrestrial species						
		<b>1</b>		2	110	
4.13 Management and institutional factors	<b>U</b>	-1	-1	٩	G.	
4.13 Management and institutional factors 4.13.1 Management system/Management plan		-				
	$\bigcirc$	9		۲	100	

4.13.2 Legal framework	٥	4		۲	Ċ	<b>→</b>
4.13.3 Governance	٢	9		۲	Ċ	<b>→</b>
4.13.4 Management activities	٢	9		٢	Ċ	<b>→</b>
4.13.5 Financial resources	٢	9	9	٢	Ċ	/
4.13.6 Human resources	٢	4		٢	Ċ	<b>→</b>
4.13.7 Low impact research/monitoring activities	٢	9	9	٢	Ċ	<b>→</b>
Legend Current Potential O Negative O Positive	<ol> <li>Insi</li> </ol>	de		C Outsi	de	

4.16. Assessment of current and potential positive and negative factors

### 4.16.1 - Assessment of current and potential negative and positive factors

4.1 Buildings and Development

Name		Impact	t		Origin		Trend
4.1.1 Hous	ng	٢		9		Ċ	<b>→</b>
Spatial sca	le - Area affected by the factor						
×	Restricted						
	Localised						
	Extensive						
	Widespread						
Temporal s	cale - Occurence of the impact						
	One off or rare						
×	Intermittent or sporadic						
	Frequent						
	On-going						
Impact - Im	pact on the attributes						
×	Insignificant						
	Minor						
	Significant						
	Major						
Manageme	nt response - Capacity of management to respond						
×	High capacity						
	Medium capacity						
	Low capacity						
	No capacity and / or resources						
Trend - De	velopement over the last 6 years						

Decreasing

Static

×

Increasing

Name	Impact	t		Origin	I	Trend
4.1.2 Commercial development	٢		9	۲	Ċ	<b>→</b>
	٢		9		Ċ	

### Spatial scale - Area affected by the factor

Spatial sca	ale - Area affected by the factor
×	Restricted
	Localised
	Extensive
	Widespread
Temporal s	scale - Occurence of the impact
×	One off or rare
	Intermittent or sporadic
	Frequent
	On-going
Impact - Im	npact on the attributes
	Insignificant
	Minor
×	Significant
	Major
Manageme	ent response - Capacity of management to respond
	High capacity
×	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Dev	velopement over the last 6 years
	Decreasing
×	Static
	Increasing

Name	Impact			Origin		Trend
4.1.3 Industrial areas						
	0	9	9		Ċ	

### Spatial scale - Area affected by the factor

×	Restricted
	Localised
	Extensive
	Widespread
Temporal s	cale - Occurence of the impact
	One off or rare

×	Intermittent or sporadic
	Frequent
	On-going
Impact - Im	apact on the attributes
	Insignificant
	Minor
×	Significant
	Major
Manageme	Int response - Capacity of management to respond
	High capacity
×	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - De	velopement over the last 6 years
	Decreasing
	Static
×	Increasing

Name	Impact		Origin		Trend	
4.1.4 Major visitor accommodation and associated infrastructure	٢	9	9		Ċ	

Spatial sca	ale - Area affected by the factor
×	Restricted
	Localised
	Extensive
	Widespread
Temporal	scale - Occurence of the impact
×	One off or rare
	Intermittent or sporadic
	Frequent
	On-going
Impact - In	npact on the attributes
	Insignificant
	Minor
×	Significant
	Major
Manageme	ent response - Capacity of management to respond
	High capacity
×	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - De	velopement over the last 6 years

	Decreasing
	Static
×	Increasing

Name		Impact	:		Origin		Trend
4.1.5 Interp	1.1.5 Interpretative and visitation facilities		9	9	۲	Ċ	
Spatial sca	Ile - Area affected by the factor						
	Restricted						
	Localised						
	Extensive						
×	Widespread						
Temporal s	scale - Occurence of the impact						
	One off or rare						
	Intermittent or sporadic						
	Frequent						
×	On-going						
Impact - Im	spact on the attributes						
	Insignificant						
	Minor						
	Significant						
×	Major						
Manageme	nt response - Capacity of management to respond						
×	High capacity						
	Medium capacity						
	Low capacity						
	No capacity and / or resources						
Trend - De	velopement over the last 6 years						
	Decreasing						
	Static						
×	Increasing						

### 4.2 Transportation Infrastructure

Name		Impact			Origin		Trend				
4.2.1 Grou	2.1 Ground transport infrastructure		round transport infrastructure		Ground transport infrastructure		9	9	۲	Ċ	
		0	4			Ċ					
Spatial scale - Area affected by the factor											
Spatial Sca	e - Area affected by the factor										
	Restricted										
	Localised										
×	Extensive										
	Widespread										
Temporal s	cale - Occurence of the impact										

	One off or rare					
	Intermittent or sporadic					
×	Frequent					
	On-going					
Impact - In	pact on the attributes					
	Insignificant					
	Minor					
×	Significant					
	Major					
Manageme	ent response - Capacity of management to respond					
	High capacity					
	Medium capacity					
×	Low capacity					
	No capacity and / or resources					
Trend - De	velopement over the last 6 years					
	Decreasing					
×	Static					
	Increasing					
Name		Impact		~7	Origin	Trend
4.2.4 Marin	e transport infrastructure	٢		9	٢	
		0	4		٢	$\rightarrow$
Spatial sca	ale - Area affected by the factor	9	4		٢	<b>→</b>
Spatial sca	ale - Area affected by the factor Restricted	•	9		٩	→
Spatial sca		0	4		۲	→
Spatial sca	Restricted		9		0	→
Spatial sca	Restricted	•	4		0	
×	Restricted Localised Extensive	9	9		0	
×	Restricted Localised Extensive Widespread	9	9		0	
×	Restricted Localised Extensive Widespread scale - Occurence of the impact	9	9		0	
×	Restricted Localised Extensive Widespread scale - Occurence of the impact One off or rare	9	9		0	
×	Restricted Localised Extensive Widespread scale - Occurrence of the impact One off or rare Intermittent or sporadic	9	9			
× Temporal	Restricted Localised Extensive Widespread Scale - Occurrence of the impact One off or rare Intermittent or sporadic Frequent	•	9			
× Temporal	Restricted         Localised         Extensive         Widespread         scale - Occurence of the impact         One off or rare         Intermittent or sporadic         Frequent         On-going	9	9			
× Temporal	Restricted Localised Extensive Widespread <b>scale - Occurence of the impact</b> One off or rare Intermittent or sporadic Frequent On-going		9			
× Temporal	Restricted         Localised         Extensive         Widespread         scale - Occurence of the impact         One off or rare         Intermittent or sporadic         Frequent         On-going         mpact on the attributes         Insignificant		9			
× Temporal : × Impact - In	Restricted         Localised         Extensive         Widespread         scale - Occurence of the impact         One off or rare         Intermittent or sporadic         Frequent         On-going         maintermittenton the attributes         Insignificant         Minor		9			
× Temporal : Minpact - In	Restricted Localised Extensive Widespread Cone off or rare Intermittent or sporadic Frequent On-going Turer ton the attributes Insignificant Minor Significant		9			
× Temporal : Minpact - In	Restricted         Localised         Extensive         Widespread         scale - Occurence of the impact         One off or rare         Intermittent or sporadic         Frequent         On-going         Insignificant         Minor         Significant         Minor         Significant         Major		9			
× Temporal : Minpact - In	Restricted         Localised         Extensive         Widespread         scale - Occurence of the impact         One off or rare         Intermittent or sporadic         Frequent         On-going         pact on the attributes         Insignificant         Minor         Significant         Major         Texponse - Capacity of management to respond		4			
× Temporal : X Impact - In X	Restricted   Localised   Extensive   Widespread   Solution of the impact   One off or rare   Intermittent or sporadic   Frequent   On-going   number of the attributes   Insignificant   Minor   Significant   Minor   Significant   Major   High capacity					

Trend - I	evelopement over the last 6 years						
	Decreasing						
	Static						
×	Increasing						
Name	ame		Impact				Trend
4.2.5 Effe	ects arising from use of transportation infrastructure						
		0	9			Ċ	
Spatial s	cale - Area affected by the factor						
	Restricted						
	Localised						
	Extensive						
×	Widespread						
Tempora	I scale - Occurence of the impact						
	One off or rare						
	Intermittent or sporadic						
	Frequent						
×	On-going						
Impact -	Impact on the attributes						
	les a						

	Insignificant
	Minor
×	Significant
	Major
Manageme	nt response - Capacity of management to respond
	High capacity
×	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Dev	velopement over the last 6 years
	Decreasing
	Static
×	Increasing

### 4.3 Services Infrastructures

Name		Impact			Origin		Trend
4.3.1 Water infrastructure		٢	9	9	۲		<b>→</b>
Spatial sca	le - Area affected by the factor						
	Restricted						
×	Localised						
	Extensive						
	Widespread						

Temporal	scale - Occurence of the impact				
	One off or rare				
	Intermittent or sporadic				
×	Frequent				
	On-going				
Impact - In	npact on the attributes				
	Insignificant				
	Minor				
×	Significant				
	Major				
Managemo	Management response - Capacity of management to respond				
	High capacity				
×	Medium capacity				
	Low capacity				
	No capacity and / or resources				
Trend - De	Trend - Developement over the last 6 years				
	Decreasing				
×	Static				
	Increasing				

Name		Impact			Origin	
4.3.2 Renewable energy facilities	٢		9		Ċ	1

Spatial sca	le - Area affected by the factor				
×	Restricted				
	Localised				
	Extensive				
	Widespread				
Temporal s	scale - Occurence of the impact				
×	One off or rare				
	Intermittent or sporadic				
	Frequent				
	On-going				
Impact - Im	pact on the attributes				
	Insignificant				
×	Minor				
	Significant				
	Major				
Manageme	Management response - Capacity of management to respond				
×	High capacity				
	Medium capacity				

Low capacity

 No capacity and / or resources

 Trend - Deprement over the last 6 years

 Decreasing

 Static

 No capacity and / or resources

### 4.4 Pollution

				_		
Name		Impact		Origin		Trend
4.4.2 Grou	4.4.2 Ground water pollution					
		0	9	٢	Ċ	<b>→</b>
Spatial sca	ale - Area affected by the factor					
	Restricted					
×	Localised					
	Extensive					
	Widespread					
Temporal	scale - Occurence of the impact					
×	One off or rare					
	Intermittent or sporadic					
	Frequent					
	On-going					
Impact - In	pact on the attributes					
	Insignificant					
×	Minor					
	Significant					
	Major					
Manageme	ent response - Capacity of management to respond					
×	High capacity					
	Medium capacity					
	Low capacity					
	No capacity and / or resources					
Trend - De	velopement over the last 6 years					
	Decreasing					
×	Static					
	Increasing					
Name		Impact		Origin		Trend
4.4.3 Surfa	ce water pollution	0	-73		18	-
		9	9		٢	-
Spatial sca	ale - Area affected by the factor					
	Restricted					

Localised

Extensive

×

Widespread

Temporal scale - Occurence of the impact

×	One off or rare
	Intermittent or sporadic
	Frequent
	On-going
Impact - Im	pact on the attributes
	Insignificant

×	Minor			
	Significant			
	Major			
Manageme	Management response - Capacity of management to respond			
×	High capacity			
	Medium capacity			
	Low capacity			
	No capacity and / or resources			
Trand Day				

Trend - Developement over the last 6 years

	Decreasing
×	Static
	Increasing

Name	Impact		Origin	Trend		
4.4.4 Air pollution						
	0	9		Ċ	\$	

### Spatial scale - Area affected by the factor

Spatial scale - Area affected by the factor					
×	Restricted				
	Localised				
	Extensive				
	Widespread				
Temporal s	scale - Occurence of the impact				
	One off or rare				
	Intermittent or sporadic				
	Frequent				
×	On-going				
Impact - Im	npact on the attributes				
	Insignificant				
×	Minor				
	Significant				
	Major				
Manageme	Management response - Capacity of management to respond				
	High capacity				
	Medium capacity				

×	Low capacity
	No capacity and / or resources
Trend - De	velopement over the last 6 years
	Decreasing
×	Static
	Increasing

### 4.8 Social/Cultural uses of heritage

Name		Impact			Origin	Trend			
4.8.2 Socie	4.8.2 Society's valuing of heritage		4	9	٢	Ċ			
Spatial sca	Spatial scale - Area affected by the factor								
	Restricted								
	Localised								
	Extensive								
×	Widespread								
Temporal	scale - Occurence of the impact								
	One off or rare								
	Intermittent or sporadic								
	Frequent								
×	On-going								
Impact - Im	pact on the attributes								
	Insignificant								
	Minor								
×	Significant								
	Major								
Manageme	nt response - Capacity of management to respond								
	High capacity								
×	Medium capacity								
	Low capacity								
	No capacity and / or resources								
Trend - De	velopement over the last 6 years								
	Decreasing								
×	Static								
	Increasing								
							_		
Name	ass is traditional ways of life and knowledge system	Impact		-1	Origin	118	Trend		
4.0.4 Chan	ges in traditional ways of life and knowledge system	$\bigcirc$	9	9	٢	Ċ	P		

Spatial scale - Area affected by the factor

Restricted

Localised

×	Extensive				
	Widespread				
Temporal s	scale - Occurence of the impact				
	One off or rare				
	Intermittent or sporadic				
	Frequent				
×	On-going				
Impact - Im	pact on the attributes				
	Insignificant				
	Minor				
×	Significant				
	Major				
Manageme	nt response - Capacity of management to respond				
	High capacity				
×	Medium capacity				
	Low capacity				
	No capacity and / or resources				
Trend - De	Trend - Developement over the last 6 years				
	Decreasing				
×	Static				
	Increasing				

Name		t		Origin		Trend
4.8.6 Impacts of tourism/Visitation/Recreation		9	٢	Ċ		
	0	9	9	۲	(F	1

Spatial scale -	Area affected	by the factor	

Spatial sca	le - Area anected by the factor
	Restricted
	Localised
	Extensive
×	Widespread
Temporal s	cale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
×	On-going
Impact - Im	pact on the attributes
	Insignificant
	Minor
	Significant
×	Major
Manageme	nt response - Capacity of management to respond
	High capacity

×

Medium capacity

	Low capacity
	No capacity and / or resources
Trend - Dev	velopement over the last 6 years
	Decreasing
	Static
×	Increasing

### 4.9 Other human activities

Name		Impact	ŧ		Origin		Trend	
	4.9.2 Deliberate destruction of heritage				<b>.</b>			
		9	9	9	٢	Ċ	<b>→</b>	
	ale - Area affected by the factor							
×	Restricted							
	Localised							
	Extensive							
	Widespread							
Temporal	scale - Occurence of the impact							
	One off or rare							
×	Intermittent or sporadic							
	Frequent							
	On-going							
Impact - In	npact on the attributes							
	Insignificant							
×	Minor							
	Significant							
	Major							
Managem	ent response - Capacity of management to respond							
	High capacity							
	Medium capacity							
×	Low capacity							
	No capacity and / or resources							
Trend - De	velopement over the last 6 years							
	Decreasing							
×	Static							
	Increasing							

### 4.11 Sudden ecological or geological events

Name	Impact		Origin		Trend	
4.11.4 Avalanche/Landslide						
	0		9	٢		$\rightarrow$
Spatial scale - Area affected by the factor						

×	Restricted
~	
	Localised
	Extensive
	Widespread
Temporal s	cale - Occurence of the impact
×	One off or rare
	Intermittent or sporadic
	Frequent
	On-going
Impact - Im	pact on the attributes
	Insignificant
	Minor
	Significant
×	Major
Manageme	nt response - Capacity of management to respond
×	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Dev	velopement over the last 6 years
	Decreasing
×	Static
	Increasing

Name	Impact		Origin		Trend	
4.11.5 Erosion and siltation/Deposition						
	0		9	۲		<b>→</b>

Spatial sca	ale - Area affected by the factor
	Restricted
×	Localised
	Extensive
	Widespread
Temporal	scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
×	On-going
Impact - In	npact on the attributes
	Insignificant
×	Minor
	Significant
	Major

### Management response - Capacity of management to respond

manageme				
	High capacity			
×	Medium capacity			
	Low capacity			
	No capacity and / or resources			
Trend - De	Trend - Developement over the last 6 years			
	Decreasing			
×	Static			
	Increasing			

Name	Impact			Origin		Trend
4.11.6 Fire (wildfire)						
	0		9	٩	Ċ	$\rightarrow$

### Spatial scale - Area affected by the factor

Spatial Sca	
	Restricted
×	Localised
	Extensive
	Widespread
Temporal s	scale - Occurence of the impact
×	One off or rare
	Intermittent or sporadic
	Frequent
	On-going
Impact - Im	pact on the attributes
	Insignificant
×	Minor
	Significant
	Major
Manageme	nt response - Capacity of management to respond
×	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Dev	velopement over the last 6 years
	Decreasing
×	Static
	Increasing

### 4.12 Invasive/alien species or hyper-abundant species

Name	Impact	npact		Origin		Trend
4.12.2 Invasive/Alien terrestrial species						
	0	9	9	٢	Ċ	<b>→</b>

Spatial sca	ale - Area affected by the factor
	Restricted
×	Localised
	Extensive
	Widespread
Temporal	scale - Occurence of the impact
	One off or rare
×	Intermittent or sporadic
	Frequent
	On-going
Impact - Im	npact on the attributes
	Insignificant
×	Minor
	Significant
	Major
Manageme	ent response - Capacity of management to respond
	High capacity
×	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - De	velopement over the last 6 years
	Decreasing
×	Static
	Increasing

### 4.13 Management and institutional factors

Name		Impact		Origin		Trend
4.13.1 Man	agement system/Management plan	٢	9	۲	Ċ	
Spatial sca	le - Area affected by the factor					
	Restricted					
	Localised					
	Extensive					
×	Widespread					
Temporal s	scale - Occurence of the impact					
	One off or rare					
	Intermittent or sporadic					
	Frequent					
×	On-going					
Impact - Im	pact on the attributes					
	Insignificant					
	Minor					

Significant

× Major

Manageme	ent response - Capacity of management to respond
×	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - De	velopement over the last 6 years
	Decreasing
×	Static

Increasing

Name	Impact	Impact		Origin		Trend
4.13.2 Legal framework	٢	9		۲	Ċ	<b>→</b>

### Spatial scale - Area affected by the factor

opullal oou								
	Restricted							
	Localised							
	Extensive							
×	Widespread							
Temporal s	Temporal scale - Occurence of the impact							
	One off or rare							
	Intermittent or sporadic							
	Frequent							
×	On-going							
Impact - Im	pact on the attributes							
	Insignificant							
	Minor							
	Significant							
×	Major							
Manageme	nt response - Capacity of management to respond							
×	High capacity							
	Medium capacity							
	Low capacity							
	No capacity and / or resources							
Trend - Dev	velopement over the last 6 years							
	Decreasing							
×	Static							
	Increasing							
		_						
Name		Impact		Origin		Trend		
4.13.3 Gove	rnance	٢	4	٢	Ċ	<b>→</b>		

# Spatial scale - Area affected by the factor Restricted Localised

	Localised
	Extensive
×	Widespread
Temporal s	scale - Occurence of the impact
	One off or rare
	Intermittent or sporadic
	Frequent
×	On-going
Impact - Im	pact on the attributes
	Insignificant
	Minor
	Significant
×	Major
Manageme	ent response - Capacity of management to respond
×	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - Dev	velopement over the last 6 years
	Decreasing
×	Static

Increasing

Name		Impact		Origin		Trend
4.13.4 Man	agement activities	٢	9	٢	Ċ	<b>→</b>
Spatial sca	ale - Area affected by the factor					
	Restricted					
	Localised					
	Extensive					
×	Widespread					
Temporal	scale - Occurence of the impact					
	One off or rare					
	Intermittent or sporadic					
	Frequent					
×	On-going					
Impact - In	npact on the attributes					
	Insignificant					
	Minor					

Significant

× Major

Manageme	ent response - Capacity of management to respond
×	High capacity
	Medium capacity
	Low capacity
	No capacity and / or resources
Trend - De	velopement over the last 6 years
	Decreasing
×	Static

Increasing

Name	Impact			Origin		Trend
4.13.5 Financial resources	0	4	9	٢	Ċ	1

### Spatial scale - Area affected by the factor

Spatial sca	le - Area affected by the factor			
	Restricted			
	Localised			
×	Extensive			
	Widespread			
Temporal s	cale - Occurence of the impact			
	One off or rare			
	Intermittent or sporadic			
	Frequent			
×	On-going			
Impact - Im	pact on the attributes			
	Insignificant			
	Minor			
	Significant			
×	Major			
Manageme	nt response - Capacity of management to respond			
	High capacity			
×	Medium capacity			
	Low capacity			
	No capacity and / or resources			
Trend - Dev	velopement over the last 6 years			
	Decreasing			
	Static			
×	Increasing			
Name		Impact	Origin	Trend

4.13.6 Human resources

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Spatial scale - Area affected by the factor				
	Restricted			
	Localised			
	Extensive			
×	Widespread			
Temporal s	cale - Occurence of the impact			
	One off or rare			
	Intermittent or sporadic			
	Frequent			
×	On-going			
Impact - Im	pact on the attributes			
	Insignificant			
	Minor			
×	Significant			
	Major			
Manageme	nt response - Capacity of management to respond			
×	High capacity			
	Medium capacity			
	Low capacity			
	No capacity and / or resources			
Trend - Dev	elopement over the last 6 years			
	Decreasing			
×	Static			
	Increasing			

Name		Impact			Origin		Trend
4.13.7 Low impact research/monitoring activities		•	9	9	۲	Ċ	<b>→</b>
Spatial sca	ale - Area affected by the factor						
	Restricted						
×	Localised						
	Extensive						
	Widespread						
Temporal	Temporal scale - Occurence of the impact						
	One off or rare						
	Intermittent or sporadic						
×	Frequent						
	On-going						
Impact - Impact on the attributes							
	Insignificant						
	Minor						

×	Significant				
	Major				
Manageme	Management response - Capacity of management to respond				
	High capacity				
×	Medium capacity				
	Low capacity				
	No capacity and / or resources				
Trend - De	Trend - Developement over the last 6 years				
	Decreasing				
×	Static				
	Increasing				

### 4.17. Serial inscriptions (national or transnational)

# 4.17.1 - If your property is a serial inscription (national or transnational) please identify which components of the property are impacted by each factor

4.18. Prediction of the state of conservation at next cycle of Periodic Reporting.

# 4.18.1 - Please predict what the state of conservation of each attribute will be approximately 6 years from now (at the time of the next cycle of Periodic Reporting)

	Attribute	Preserved	Compromised	Seriously compromised	Lost
4.18.1.1	Pontcysyllte and Chirk Aqueducts	×			
4.18.1.2	Horseshoe Falls	×			
4.18.1.3	Whitehouse and Chirk Tunnels	×			
4.18.1.4	Embankments, earthwork formations	×			
4.18.1.5	Located within AONB	×			

### 5. Protection and Management of the Property

#### 5.1. Boundaries and Buffer Zones

### 5.1.1 - Are the boundaries of the World Heritage property adequate to maintain the property's Outstanding Universal Value? The boundaries are adequate to maintain the property's Outstanding Universal Value

### 5.1.2 - Are the boundaries of the World Heritage property known and recognised?

The boundaries are known by both the management authority and local communities/landowners

### 5.1.3 - Are the buffer zone(s) of the World Heritage property adequate to maintain the property's Outstanding Universal Value? The buffer zones are **adequate** to maintain the property's Outstanding Universal Value

#### 5.1.4 - Are the boundaries of the buffer zones known and recognised?

The buffer zones of the World Heritage property are known and recognised by both the management authority and local communities/landowners

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

Current buffer zones/boundaries are adequate to maintain OUV and the majority of communities and landowners are aware of these boundaries.

### 5.2. Protective Measures

#### 5.2.1 - Protective designation (legal, regulatory, contractual, planning, institutional and/or traditional).

The Transport Acts of 1962 and 1968 define the Llangollen Canal as a waterway for pleasure boating, and they entrust British Waterways with the management of the canal and its immediate surroundings .Today's owner and manager of the canal is Canal & River Trust. The contractual specification for management was set out by the Unied Kingdom Government in 1999. It explicitly includes a mission of heritage conservation and restoration of the property.

The Pontcysyllte Aqueduct has been on the list of United Kingdom ancient monuments (a Scheduled Ancient Monument) since 1958, and the same is true of the Cysylltau Aqueduct over the Dee, which is within the boundaries of the property. Their protection has been stepped up by the Ancient Monuments and Archaeological Areas Act of 1979. Scheduled Monument designation now covers 11 mile stretch of World Heritage sites – designated in 2008 in England and Wales.

Up to the present 32 structures and three landscape zones next to the property are on the List of Scheduled Buildings and Spaces under the Planning (Listed Buildings and Conservation Areas) Act of 1990 Additional projects are under way concerning the buffer zone. The regulation of land-use and building permits is subject to the Town and Country Planning (General Permitted Development) Order (1995), to Planning Policy Wales (2002), and to the Wales Spatial Plan (2004). These national plans are complemented by circulars specific to the various cultural and natural heritage situations that may arise in a given territory. They are applied in practice in the context of plans and decisions of the regions, Counties, and municipalities. The property is therefore affected by three regional plans and by a series of County and municipality plans. Specific planning for land use and development is currently being drawn up for the buffer zone, following the landscape assessment carried out in 2007. No element will be left without designation, and without rules governing use and control. Most of them will be protected green zones. Buildings in the Conservation Areas may not be demolished or altered without the agreement of the local authorities. There are three such authorities in the area of the property and its buffer zone:Wrexham, Denbighshire and Shropshire. A study of the specific architectural and landscape values of these areas provides support to enable guidance for works. The Llangollen and Eglwyseg Valley is one of the 22 landscapes identified in the Register of Landscapes of Special Historic Interest in Wales. It covers the western part of the buffer zone.

The Register of Parks and Gardens 218 of Historic Interest in Wales is a complementary document that provides assistance for the management of public and private properties. Some areas of the buffer zone are covered by regimes protecting natural species and/or landscape: the special conservation zone and scientific sites of the River Dee and Bala Lake and the landscape of the Cl ywydian Range. In the case of works undertaken by authorities or private individuals, assistance may be requested from the Heritage Protection Review, particularly for complex situations. Since inscription, Clywydian Range and Dee Valley AONB has been extended to cover much of the World Heritage sites.

Source: Advisory Body Evaluation; Periodic Reporting Cycle 2

# 5.2.2 - Please list any legislation and other measures (regulatory -including spatial planning- contractual, institutional or traditional) not included in 5.2.1 and indicate the category

2012 / Pontcysyllte Aqueduct & Canal WORLD HERITAGE SITE. Local planning guidance note 33. / https://www.wrexham.gov.uk/service/development-plans-and-other-planning-policy/local-planning-guidance-notes

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

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

# 5.2.4 - 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 in the buffer zone for the maintenance of the Outstanding Universal Value including conditions of Authenticity and/or Integrity of the World Heritage property provides an adequate basis for effective management and protection

# 5.2.5 - Is the legal framework (i.e. legislation and/or regulation) in the broader setting of the World Heritage property adequate for maintaining the Outstanding Universal Value including conditions of Integrity and/or Authenticity of the property?

The legal framework for the broader setting of the World Heritage property provides an adequate 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

### 5.2.6 - Can the legal framework (i.e. legislation and/or regulation) be enforced?

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

**5.2.7 - Please provide a short summary of how the legislation, including spatial planning and other regulation, works in practice** Strong legislation and spatial planning and other regulation is in place, protecting the OUV of the WHS.

## 5.2.8 - Comments, conclusions and/or recommendations about the information related to the measures taken to protect the World Heritage property

With support of CADW and internal conservation management group, protection of the world heritage property is maintained.

### 5.3. Management System/Management Plan

# 5.3.1 - Please check the box which most closely match the character of the governance and management system of the property Public management system joint national/ local

### If 'Other', please specify

#### 5.3.2 - Management System: Please indicate which of the various management tools listed below are used to help protect the property.

A statutory Management Plan or zoning plan for the property.

Other forms of statutory or non-statutory plans (e.g. strategic plans)

Agreed 'Memorandums of Understanding' between different managing institutions, groups or others, including documents agreed with local communities for management

An integrated management plan combining World Heritage and any other designations

A management plan

A visitor/visitation management plan

A joint approach to management of cultural and natural heritage

Other (please specify below)

Trevor Basin Masterplan

#### 5.3.3 - Please give a brief description of the management system currently in place at your property

#### 5.3.4 - Management Documents

Title

N/A

Available 2019

# 5.3.5 - Has any use been made of the 2011 Recommendation on the Historic Urban Landscape in developing policies and best practices for the protection of this property?

The 2011 Recommendation on the Historic Urban Landscape is not relevant to this property

5.3.6 - If the Historic Urban Landscape Recommendation has been used at this property, please describe briefly what has been done.

5.3.7 - Has any use been made of the Policy Document on the Impacts of Climate Change on World Heritage Properties at the property?

Some use has been made of the World Heritage Policy for Climate Change

5.3.8 - If the Climate Change policy has been used, please briefly describe what has been done along with any research on the impacts of Climate Change on the property:

5.3.9 - Has any use been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties at the property ? Some use has been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties

5.3.10 - If the Strategy for Reducing Risks from Disasters at World Heritage Properties has been used, please briefly describe what has been done

5.3.11 - Rate the coordination between the various levels of administration (i.e. national/federal; regional/provincial/state; local/municipal etc.) involved in the management of the World Heritage property There is adequate coordination between all bodies/levels involved in the management of the property

# 5.3.12 - 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

# 5.3.13 - Is the management system being implemented?

The management system is being only partially implemented

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

An annual work/action plan exists and many of its activities are being implemented

5.3.15 - Does the management system include formal mechanisms and procedures that ensure participation and contribution of the following groups, living within or near the World Heritage property and/or buffer zone in management decisions that maintain the Outstanding Universal Value of the property?

		Not applicable	No mechanisms for participation	Some participation	Direct participation	Transformative participation in all relevant decision processes
5.3.15.1	Local communities			×		
5.3.15.2	Local authorities				×	
5.3.15.3	Landowners in the property and the buffer zone				×	
5.3.15.4	Indigenous peoples			×		
5.3.15.5	Women				×	
5.3.15.6	Other specific groups	×				
	If you selected, 'Other specific groups' please specify					

5.3.16 - Please rate the cooperation/relationship between the World Heritage property managers/coordinators/staff and the following groups

		Not applicable	Non-existent	Poor	Fair	Good
5.3.16.1	Local communities				×	
5.3.16.2	Local/Municipal authorities					×
5.3.16.3	Indigenous peoples				×	
5.3.16.4	Landowners				×	
5.3.16.5	Women				×	
5.3.16.6	Youth/Children				×	
5.3.16.7	Researchers	×				
5.3.16.8	Local Visitors/Tourists				×	

Pontcysyllte Aqueduct and Canal

5.3.16.9	National/International tourists			×
5.3.16.10	Tourism Industry			×
5.3.16.11	Local businesses and industries			×
5.3.16.12	NGOs			×
5.3.16.13	Other specific groups	×		
	If you selected 'Other specific groups', please specify			

# 5.3.17 - Please rate the extent to which the management system of your property contributes towards achieving the objectives of the World Heritage Committee's Policy for the Integration of a Sustainable Development Perspective into the Processes of the *World Heritage Convention*

		Not applicable	No contribution	Limited	Significant	Full achievement
5.3.17.1	The management system of the property contributes to gender equality					×
5.3.17.2	The management system of the property provides ecosystem services/benefits to the local community (e.g. fresh air, water, food, medicinal plants)					×
5.3.17.3	The management system of the property contributes to social inclusion and equity, improving opportunities for all, irrespective of age, sex, disability, ethnicity, origin, religion or economic or other status					×
5.3.17.4	The management system of the property integrates a human rights-based approach					×
5.3.17.5	The management system of the property contributes to fostering inclusive local economic development, and to enhancing livelihood					×
5.3.17.6	The management system of the property contributes to conflict prevention, including respect for cultural diversity within and around the World Heritage property					×

# 5.3.18 - Please provide further details on the ratings of the management system given in the table above

# 5.3.19 - Comments, conclusions and/or recommendations related to the management system/plan

# 6. Financial and Human Resources

# 6.1. Funding

# 6.1.1 - If your funding sources do not exactly fit those shown, put the relevant amounts against the funding type that most closely represents your situation, and use the comment box below to provide more details.

		Project costs	Running costs
6.1.1.1	Multilateral funding (GEF, World Bank, etc.)	0 %	0 %
6.1.1.2	Bilateral international funding	0 %	0 %
6.1.1.3	World Heritage Fund (International Assistance)	0 %	0 %
6.1.1.4	Contribution from other conventions and programmes	0 %	0 %
6.1.1.5	International donations (NGOs, foundations, etc.)	0 %	0 %
6.1.1.6	Governmental (national/federal)	0 %	0 %
6.1.1.7	Governmental (regional/provincial/state)	47 %	17 %
6.1.1.8	Governmental (local/municipal)	0 %	0 %
6.1.1.9	In-country donations (NGOs, foundations, etc.)	53 %	83 %
6.1.1.10	Individual visitor charges (e.g. entry, toilets, parking, camping fees, etc.)	0 %	0 %
6.1.1.11	Commercial activities (e.g. merchandising and catering, filming permit, concessions, etc.)	0 %	0 %
6.1.1.12	Other	0 %	0 %
		Total 100 %	Total 100 %

# 6.1.2 - Please comment here on any other aspects of funding sources not covered in the table above

# 6.1.3 - 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

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

The existing sources of funding are secure over both the medium- and long-term

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

The four key partners are fully committed for the long-term to facilitate site management. Long-term development projects are subject to external funding being secured.

6.1.6 - Estimate the distribution of men and women involved in the management, conservation, interpretation of the World Heritage properties and the extent to which they are drawn from local communities.

		From local communities %	From elsewhere %
6.1.6.1	Men	55 %	40 %
6.1.6.2	Women	45 %	60 %
		Total 100 %	Total 100 %

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

Human resources are adequate for management needs

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

Conservation	Good
Environmental sustainability	Fair
Community participation and inclusion	Fair
Risk preparedness	Good
Capacity development and education	Poor
Administration	Fair
Research and monitoring	Fair
Awareness raising and public information/communication	Fair
Marketing and promotion	Fair
Interpretation	Poor
Visitor management/tourism	Fair
Enforcement (custodians, police)	Not applicable

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

Conservation	Fair
Environmental sustainability	Fair
Community participation and inclusion	Fair
Risk preparedness	Good
Capacity development and education	Fair
Administration	Good
Research and monitoring	Fair
Awareness raising and public information/communication	Fair
Marketing and promotion	Good
Interpretation	Poor
Visitor management/tourism	Fair
Enforcement (custodians, police)	Not applicable

# 6.1.10 - Has any use been made of the World Heritage Strategy for Capacity Building at the property?

Some use has been made of the World Heritage Strategy for Capacity Building

### 6.1.11 - If the World Heritage Strategy for Capacity Building has been used, please briefly describe what has been done.

When developing the management plan we took into consideration the World Heritage Capacity Building Strategy 2011, to strengthen the capacity for the effective management of the World Heritage Property.

# 6.1.12 - Are there site-specific capacity building plans or programmes that develop local expertise and that contribute to the transfer of skills for the conservation and management of the World Heritage property?

A site-based capacity building plan or programme is in place and fully implemented; all technical skills are being transferred to those managing the property locally

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

Four partners on board with individual plans which feed into WHS. AONB and CRT both have volunteer and training programmes.

# 7. Scientific Studies and Research Projects

7.1 - Is there adequate knowledge (scientific or traditional) about the values and attributes of the World Heritage property to support planning, management and decision-making to ensure that Outstanding Universal Value is maintained? Knowledge about the values and attributes of the World Heritage property is **acceptable** for most key areas but there are gaps

# 7.2 - 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

# 7.3 - Are results from research programmes publicly available and disseminated? Research results are shared with local communities and some national agencies

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

Research projects have taken place focused on improving infrastructure within the WHS. Feasibility studies have been developed for JC Edwards wall, Old railway line conversion for footpath and most notably the creation of the Trevor Basin Masterplan.

### 8. Education, Information and Awareness Building

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

Local communities	Fair
Local/municipal authorities	Good
Indigenous peoples	Fair
Landowners	Good
Women	Fair
Youth/children	Fair
Researchers	Good
Local visitors	Good
National/international tourists	Good
Tourism industry	Good
Local businesses and industries	Fair
NGOs	Fair
Other specific groups	Not applicable
If you selected 'Other specific groups', please describe	

# 8.2 - Does the property have a heritage education programme(s) for children and/or youth, that can contribute to a better understanding of heritage, promote diversity and foster intercultural dialogue? There is a limited and ad hoc education and awareness programme for children and/or youth

#### 8.3 - Who are the target audiences for education and awareness programmes at your property?

Local communities
Indigenous peoples
Landowners
Women
Youth/children
Local Visitors
National/international tourists
Tourism industry
Local businesses and industries
NGOs
Other specific groups

#### men

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

Visitor centre	Not provided but needed
Site museum	Not provided but needed
Information booths	Fair
Guided tours	Good
Trails/routes	Fair
Printed information materials	Fair
Online (website, social media, etc.)	Fair
Transportation facilities	Fair
Other	Not needed
If 'Other' is selected, please specify	

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

Due to the size constraints of the building located at the Trevor Basin the ability to provide a high quality visitor centre/museum is difficult. As part of the Trevor Basin Masterplan we have an asperation to build a new facility to improve this aspect of the visitor experience. Work is ongoing to improve the interpretation and general signage across the 11 mile site as part of the 'OPL' project.

### 9. Visitor Management

### 9.1 - Please provide estimated annual visitor numbers (including national and international visitors) since the last Periodic Report

285,411 / 215,521 / 363,293 / 342,620 / 333,383 /

# 9.2 - What information sources are used to collect visitor statistics?

Tourism industry
Visitor surveys
Other
Figures represent one footfall counter at Trevor Basin. The total figure across the 11 mile open site is many times more than recorded.

# 9.3 - What is the average length stay of a visitor to the World Heritage property?

One day (no overnight stay)

#### 9.4 - Please provide the source of information

Wrexham destination Management plan Visitor Survey 2022.

# 9.5 - What is the approximate average daily visitor expenditure? (Please provide an estimated monetary figure in USD)

0/3/5/0/10/1/

# 9.6 - Please provide the source of information

Figures based on expenditure at the property only. As an open site with only one small shop operated by Canal and River Trust across the 11 miles the opportunity to attract tourism spend does not currently exist. The spend takes place in private enterprise adjacent to the property in pubs, hotels, cafes, accommodation providers and gift shops.

# 9.7 - Does the management system/plan for the World Heritage property include a strategy with an action plan to manage visitors, tourism activity and its derived economic, socio-cultural and environmental impacts?

There is a strategy to manage visitors, tourism activity and its derived impacts on the World Heritage property but there are some deficiencies in implementation

# 9.8 - Please provide any comments relating to the answer provided above in question 9.7

Open site across 11 miles. Difficult to manage visitors across such a large site. Each of the 3 local authorities have a Destination management plan and own Tourism section which work closely together to maximise visitor numbers and therefore visitor spend which benefits the local population. As part of the WHS governance structure we have a visitor management group to co-ordinate visitor management across the 11 mile site.

# 9.9 - Is visitor use effectively managed to maintain the Outstanding Universal Value of the property?

Visitor use of the World Heritage property is effectively managed and does not impact its Outstanding Universal Value

# 9.10 - Is the effectiveness of tourism management regularly monitored?

Yes, using a different system

# If a different system, please specify

Objectives within our management plan.

# 9.11 - How does the tourism industry cooperate with the site management to improve visitor experiences and maintain the Outstanding Universal Value of the World Heritage property?

There is good cooperation between those responsible for the World Heritage property and the tourism industry to present the Outstanding Universal Value and increase appreciation

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

The presentation and interpretation of the Outstanding Universal Value of the property is acceptable but improvements could be made

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

In many locations, but not easily visible to visitors

# 9.14 - How does visitor/tourism revenue (e.g. entry charges, permits) contribute to the management of the World Heritage property? Fees are collected, and make some contribution to the management of the World Heritage property

# 9.15 - Are there locally driven sustainable tourism initiatives?

Yes

# If 'Yes', please specify

Destination management plans of each of the 3 local authorities.

# 9.16 - Are the benefits of tourism shared with local communities?

Yes

# If 'Yes', please specify

Tourism is a major part of the economy across the 11 mile site, employing 100's of people in the sector.

# 9.17 - Comments, conclusions and/or recommendations related to visitation/tourism/public use of the World Heritage property

As visitor numbers increase so does the pressure on local infrastructure. To address this we have been awarded £13M via Levelling Up funding to improve arrival points and enhance visitor experience. 18 projects across the 11 mile site.

# 10. Monitoring

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

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

# 10.2 - Is necessary information available in order to define key indicators for measuring the state of conservation and are they used in monitoring how the Outstanding Universal Value of the property is being maintained?

Information on the values of the World Heritage property is **adequate and key indicators have been defined** for measuring the state of conservation and **are being used in monitoring** of how the Outstanding Universal value of the property is being maintained

# 10.3 - Are key indicators defined and in place for the following principal aspects of the property?

	Extend of indicators	Not applicable	No indicators	Indicators have been defined but are not yet in use	Indicators are in place and in use since the last Periodic Reporting cycle
10.3.1	State of conservation				×
10.3.2	Effectiveness of the management system				×
10.3.3	Character of governance				×
10.3.4	Appropriate synergy with other conservation designations				×
10.3.5	Contribution to sustainable development				×
10.3.6	Capacity development		×		

# 10.4 - Please provide information on relevant key indicators adopted at the property

# 10.5 - Please rate the level of involvement in monitoring of the following groups:

World Heritage managers/coordinators and staff	Good
Local/municipal authorities	Good
Local communities	Fair
Indigenous peoples	Fair
Landowners	Good
Women	Not applicable
Researchers	Not applicable

Tourism industry	Fair
Local businesses and industry	Fair
NGOs	Fair
Other specific groups	Not applicable
If you selected 'Other specific groups', please specify	

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

No relevant Committee recommendations to implement

# 10.7 - Please provide comments relevant to the implementation of recommendations from the World Heritage Committee.

# 10.8 - Comments, conclusions and/or recommendations related to Monitoring

Monitoring is the primary function of the various sub groups (Conservation and planning, visitor Management, stakeholders). The monitoring and action conducted by the subgroups is reported back to the Management board which informs actions required and amendments to the management plan on a periodic basis.

# 11. Identification of Priority Management Needs

# 11.1 - Identification of Priority Management Needs

5.3	Management System/Management Plan							
5.3.7	Some use has been made of the Policy Document on the Impacts of Climate Change on World Heritage Properties at the property	×						
5.3.9	Some use has been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties at the property	×						
5.3.13	The management system at the property is only being partially implemented	×						
6.1	Funding							
6.1.3	The available budget is acceptable but could be further improved to fully meet the management needs of the World Heritage property	×						
6.1.10	Some use has been made of the World Heritage Strategy for Capacity Development at the World Heritage property	×						
8	Education, Information and Awareness Building							
8.2	There is a limited and ad hoc education and awareness programme for children and/or youth	×						
9	Visitor Management							
9.7	There is a strategy to manage visitors, tourism activity and its derived impacts on the World Heritage property but there are some deficiencies in implementation	×						
9.12	The presentation and interpretation of the Outstanding Universal Value of the property is acceptable but improvements could be made	×						
Pleas	e select 0 more issues.							
De Ple	Please save this question to reflect changes							

# 12. Summary and Conclusions

# 12.1. Summary - Factors affecting the Property

# 12.1.1 - Summary - Factors affecting the Property

4.1	Buildings	Buildings and Development								
4.1.2	Commercial development	Minimal commercial development taken place within WHS during this reporting period therefore WHS criteria and attributes unaffected. Some small scale commercial development is to take place adjacent to the property to improve the visitor experience.	To deliver the Developments identified in The Trevor basin masterplan to enhance and showcase the Attributes of the WHS. Work with the WHS Planning & Conservation sub-group to ensure all developments add value to the property and protects the OUV.	In quarterly WHS planning and conservation meetings review and monitor all commercial development being planned or being undertaken and provide comment to planning authorities.	ongoing work via quarterly Planning and Conservation group. Protection of Attributes and OUV at the forefront of all proposed commercial development.	CADW, Wrexham CC, Denbighshire CC, Shropshire CC, Canal & River Trust,	using the funding secured from Levelling up fund improvements to arrival point/car park at Trevor should take place. Also relocation of boat hire business to new build at Trevor basin. Both these commercial developments should enhance the WHS.			

4.1.3	Industrial areas	The visual impact of proposed and future industrial development adjacent to WHS in Chirk.	Active engagement with planning authority and planning applicant ensure any development does not affect the OUV of the WHS.	conserva sub-grou to will mak represer planning as appro monitor develop takes pla working	ntation to applications opriate and impact of any ment that ace. CADW with all parties g the Business	pre-ap consul industri is on-g Kronos sub-gr and m	ing. Currently a uplication Itation for rial development joing at span which the oup is reviewing aking entation.	Planning and conservation sub-group with representatives from CRT, National Trust, CADW and the 3 LA's.	represents a small part of the 11 mile
4.2	Transportati	on Infrastructure							
4.2.1	Ground transport infrastructure	A key visitor attraction across the 11 mile WH local transportation infrastructure struggles to cope with the numbo of visitors at busy time of year. The main issue being number of vehicles with insufficier or inappropriate parking	enforcement a key sites to mi er disruption to lo community. In e car parking pro at Trevor Basi nt Horseshoe fall	ng cr t these re nimize u bocal a creasing a bvision si n and fr s. o	leeting with local ommunities on a agular basis to nderstand if the ctions we are takin re improving the tuation. Feedback om LA enforcemen n number of enalties issued.	ng	Development of car park in Trevor to be completed by March 2025 and traffic enforcement ongoing	Local Authority.	Three primary sites affected are Trevor Basin, Horseshoe Falls and Froncysyllte Basin.
4.2.4	Marine transport infrastructure	Increased number of boats using the cana contributes to congestion on the waterway. Number of boats at Trevor Basin is at capacity.	fund) for the re Anglo-Welsh fu the basin will a capacity and a	location of urther into Illeviate Ilow s to moor	Regular onsite w WHS coordinate CRT staff based	or and	projects must be	Trust.	Work has commenced as of October 2022.
4.2.5	Effects arising from use of transportation infrastructure	As visitor numbers increase, greater pressure is placed on local road network. Along the 11 mile site many of the access roads are not designed for high volumes of traffic or large vehicles such as coaches.	The development of additional car parki key sites such as T Basin and Horsesh Falls and improved signage to direct per to designated parki areas and direct per down appropriate m	ng at enfo revor traff oe eople ng ople	rmation from LA preements and via ic surveys.	l	Much of this work will be completed with LUF money which must be spe by March 2025.	Local Authority.	It is important this work is completed to minimize disruption to the local community and its residents.
4.4	Pollution								
4.4.4	Air pollution	Air pollution across the 11 mile site is generally very low. However at a very local geographical area around Chirk air pollution in the form of dust particles is present. The dust particles are generated from industrial processes close to the WHS.	Continue to work Local agencies to monitor air quality Along with local agencies encoura and support local businesses to invo- and implement measures to imprenvironmental standards leading improved air qualit locally.	Natu Vali Auti uge Envi stan est achi Indu ove busi	ried out by ural Resource es and Local nority to ensure ironment dards are being eved by ustrial nesses.	addi ager envi stan inve by k	ady being ressed by Local ncies in monitoring ronmental idards with ongoing stment being made ocal businesses to rove air pollution.	Local Authority with involvement from Natural Resource Wales.	Although air pollution is generated in the form of dust from industry close to the WHS, the levels produced are significantly less than that produced in the past. Improved environmental standards along with technology improvements have helped.
4.8	Social/Cultu	ral uses of heritage							
4.8.6	Impacts of tourism/Visitation/F	Recreation Since becc WHS the p the site has increased b has resulte significant of visitor nu This has ha hugely pos impact acre 11 miles st local busin creating loc	rofile of busines s commu which maximi: d in a econom increase visitors umbers. can brir ad a d a titive poss the upporting ess' and	nic benefits that to the WHS	Using Steam data to moni visitor numb and visitor at spend acros the 11 miles site.	itor ers s	On-going.	Local Authorities supported by Visit Wales, Business Wales, CRT and AONB.	Although the tourism element of the WHS is positive to the local area sufficient infrastructure such as car parks, signage and amenities need to be put in place to minimize disruption to local residents.

4.9	Other human a	ctivities							
4.9.2	Deliberate destruction of heritage	On rare occasions some low-level vandalism takes place along the 11 mile site.	Continue to monitor the assets along the site and maintain and repair any vandalism.	On-going inspection of assets by staff, volunteers and members of the public.	On-going.	F	CRT supported by Police, general pub and local communi	lic	Very low-level vandalism such as graffiti.
4.11	Sudden ecolog	lical or geological even	ts						
4.11.4	Avalanche/Landslid	However unlikely, there is always the possibility that a sudden geological event leading to a landslide could affect the integrity of the canal system i.e. could burst its banks.	CRT have a structured maintenance programme in place to ensure the integrity and structure of the property (canal) is maintained. Ongoing inspections take place across the 11 mile WHS. Conservation management plan (22/23) in place to mitigate risk.	Regular site inspections across the 11 mile site take place. Repairs carried out as required. At the quarterly Conservation sub group meeting a condition of the property is discussed and any issues addressed.	ongoing	lead as property from me Conserv manage includin CADW. respons partner Conserv	ement group g the 3 LA's, Roles and sibilities of each detailed in the	has aff over 40 testam repair a	or incident/landslide ected the property in ) years which is ent to the ongoing and maintenance eing undertaken by
4.11.5	Erosion and siltation/Deposition	Ensuring the integrity of the canal sides and banking of the canal is maintained.	Regular inspection an on-going maintenance program of the canal system across the 11 miles.	e on-going maintena program of the can	nce ial 11 wed he	g.	CRT with the sr of the planning conservation sub-group, white made up of CA LA's, AONB an National Trust.	and ch is DW,	Most of the canal consists of concrete structured sides and therefore not subject to erosion. However some sections are open sided and overtime are subject to erosion.

Summary - Factors affecting the Property **completed** 

# 12.2. Summary - Management Needs

# 12.2.1 - Summary - Management Needs

5.3	Management Syst	tem/Management Plan			
		Actions	Timeframe	Lead agency (and others involved)	More info / comment
5.3.7	Some use has been made of the Policy Document on the Impacts of Climate Change on World Heritage Properties at the property	Prior to undertaking any projects/works at the property the project officer or project management group must make reference to the Policy document on the impact of climate change to ensure the activity falls within the policy and maintains the OUV.	ongoing - as projects develop.	WHS Board.	Climate change front of mind in all projects and developments taking place or proposed across the 11 miles of our WHS.
5.3.9	Some use has been made of the Strategy for Reducing Risks from Disasters at World Heritage Properties at the property	When developing all our Plans (Management Plan/conservation management plan etc) we incorporate UNESCO Strategy for Reducing Risks from disasters at WHS properties.	ongoing. Develop plans as risk changes.	WHS Board including all members and partner organisations.	All projects undertaken are subject to robust risk management processes but not always directly using the UNESCO document, but the principles within it are always implemented.
5.3.13	The management system at the property is only being partially implemented	In 2019 a new management plan was developed which dictates how the OUV is to be maintained at this WHS property. The plan outlines how the property is being managed, but has only partially been implemented due to covid restrictions.	Work is now underway to fully implement the management plan and reconvene all the sub-groups and networks with responsibility for delivery of the plan.	LA's supported by CRT and AONB	All groups are fully operational by December 2022 and delivery of the management plan is underway.
6.1	Funding				

6.1.3	The available budget is acceptable bu could be further improved to fully meet the management needs of the World Heritage property	and improve facilities for visitors and the communities accessing the site.	ongoing	Local Authority in partnership with the WHS Board.	The day to day operations of the site are funded to an acceptable level which ensures the conservation of the property is maintained and the OUV retained. Additional funding would improve the visitor experience and add value to the communities.
6.1.10	Some use has been made of the World Heritage Strategy for Capacity Development a the World Heritage property	strategy for capacity development is being built into project management & work programs being undertaken by the Board, its sub-groups & partner		WHS Board to lead on embedding the strategy in all workstreams. All partners including LA's, Canal river trust and AONB.	Have been reviewing the strategy when undertaking projects and workstreams to ensure capacity development is included, but not formally documenting its use.
8	Education, Informa	tion and Awareness Building			
8.2	limited and ad hoc education and awareness programme for	imited and adacross the site for children and the youth. Thishoc educationactivity does happen on a regular basis with visitsand awarenessfrom school and higher education groups but aprogramme formore structured/planned program needschildren and/ordeveloping.		WHS board. Canal river trust, LA's, education institutions and youth organizations. More engagement with WHS youth ambassador scheme required.	Need to promote the fact we have staff on site who can facilitate educational visits for children and/or youth.
9	Visitor Manageme	ent			
9.7	There is a strategy to manage visitors, tourism activity and its derived impacts on the World Heritage property but there are some deficiencies in implementation	To implement the infrastructure improvements highlighted in the 2019 Management plan, the 'Trevor Basin' masterplan and LUF funding application. This work will improve the impacts on the property, buffer zone and local communities.	LUF funding in place until 2024, therefore the improved infrastructure needs to be completed in this timeframe.	WCBC - Lead. Partners include CRT, Denbighshire CC and local landowners.	LUF funding totalling £13m to support 18 projects across the WHS and buffer zone. This includes improved car parking at Trevor basis, rewilding of former industrial site, visitor facilities at Horseshoe falls, Llangollen and Corwen.
9.12	The presentation and interpretation of the Outstanding Universal Value of the property <b>is acceptable</b> <b>but</b> <b>improvements</b> <b>could be made</b>	To continually review and improve the presentation and interpretation of the OUV of our WHS. As we carry out work/projects across the 11 mile site ensure that as part of any project we incorporate the presentation and interpretation of the OUV.	ongoing	Canal river trust. LA's, project teams, AONB	As well as on site presentation and interpretation of the OUV the marketing and promotion of property needs to reflect the OUV. This includes digital and printed material.

Summary - Management Needs completed

12.3. Conclusions on the State of Conservation of the Property

12.3.1 - Following the analysis undertaken for this report, what is the current state of Authenticity of the World Heritage property? The Authenticity of the World Heritage property has been preserved

**12.3.2 - Following the analysis undertaken for this report, what is the current state of Integrity of the World Heritage property?** The Integrity of the World Heritage property is **intact** 

# 12.3.3 - Following the analysis undertaken for this report, what is the current state of the World Heritage property's Outstanding Universal Value?

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

### 12.3.4 - What is the 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 intact

#### 12.3.5 - Comments. conclusions and/or recommendations related to the state of conservation of the property.

Through the work undertaken by the 'Planning and conservation' sub group work is continually ongoing to safeguard and enhance the state of conservation of the property. During 2021/22 the development of a new Conservation management plan has been completed and sign off by all partners expected in late April/May 2023.

# 13. Impact of World Heritage Status

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

Conservation	Very positive
Research and monitoring	Positive
Management effectiveness	Very positive
Quality of life for local communities and indigenous peoples	Positive
Recognition	Very positive
Education	Positive
Infrastructure development	Positive
Funding for the property	Very positive
International cooperation	Positive
Political support for conservation	Very positive
Legal/Policy framework	Very positive
Advocacy	Positive
Institutional coordination	Very positive
Security	No impact
Gender equality	No impact
Provision of ecosystem services/ benefits to local communities	Positive
Social inclusion and equity, and improvement of opportunities for all, irrespective of age, sex, disability, ethnicity, origin, religion, or economic or other status	Positive
Fostering inclusive local economic development and enhancing livelihood	Positive
Contributing to conflict prevention, including respect for cultural diversity within and around heritage properties	Positive
Other	Not applicable
If 'Other', please specify	

# 13.2 - Comments, conclusions and/or recommendations related to World Heritage status and its impacts

WHS status brings with it huge benefits. The additional protection the status brings ensure that conservation of the property is front of mind across all partners involved in managing the site. The profile a WHS attracts ensures political leaders at Local, Regional and national level are aware of the importance of the Property and this can help with the delivery of projects or accessing funding. This status also puts us on the World stage which attract visitors from across the World.

### 14. Good Practice in the Implementation of the World Heritage Convention

### 14.1 - Example of good practice in World Heritage protection, identification, conservation or management at the property level

Working in synergy with AONB on all aspects of management of the WHS and buffer zone. The WHS and AONB both have various working groups covering similar issues. i.e. Conservation, heritage, tourism, strategic boards. The WHS sits within the AONB so to ensure there is no duplication of effort we have members from each organisation attending each others meetings. This allows projects to be pooled together increasing funding availability and increasing effectiveness of each workstream. This principle is led from the top with senior officials from the AONB sitting as Board members of the WHS and vice versa.

### 14.2 - Define which topics are covered by this example of best practice at the property level

Synergies			
Management			
Capacity Building			

# 15. Assessment of the Periodic Reporting Exercise

### 15.1. Relevance of Periodic Reporting

# 15.1.1 - Has the Periodic Reporting process 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		

### Monitoring and reporting

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

State Party	Good
Site Managers	Good
UNESCO World Heritage Centre	Good
Advisory Bodies (ICOMOS, IUCN, ICCROM)	Good

# 15.2. Use of Data

# 15.2.1 - How do the authorities in charge of the property plan to use the data recorded from this cycle of Periodic Reporting?

Revision of priorities/strategies/policies for the protection, management and conservation of heritage

Update of management plans

#### 15.2.2 - Comments on use of data from the Cycle of Periodic Reporting

### 15.3. Timing and resources

#### 15.3.1 - Entities involved in the filling out of this online questionnaire (tick as many boxes as applicable)

Governmental institutions responsible for cultural and natural heritage

Site Manager/Coordinator World Heritage property staff

Responsible persons for local designated sites under other international conventions/ programmes

Staff from other World Heritage properties

UNESCO National Commission

Local communities

Non-Governmental Organizations

**15.3.2** - Has a gender balanced contribution and participation been considered in the filling out of this questionnaire? Gender balance has **not been explicitly** considered or implemented in the process.

15.3.3 - Were you given adequate time (i.e. roughly ten months) to gather necessary information and to fill in this questionnaire? Yes

#### 15.3.4 - Please estimate the time (working hours) needed to complete this questionnaire

130 / 80 / 100 /

# 15.3.5 - Did you mobilise any additional resources to fill out this questionnaire?

	Additional resources	No	Yes
15.3.5.1	Human resources		×
15.3.5.2	Financial resources for organizing consultation meetings/ training	×	

#### 15.4. Format and content of the Periodic Report

15.4.1 - How accessible was the information required to complete this questionnaire?

Most required information was accessible.

# 15.4.2 - Was the questionnaire easy to use and clear to understand?

		Very Difficult	Difficult	Easy	Very easy
15.4.2.1	Ease of use of questionnaire			×	
15.4.2.2	Clarity of questions		×		

# 15.4.3 - Please provide suggestions for improvement of the Periodic Reporting questionnaire

Some of the questions are open to individual interpretation.

# 15.5. Training and Guidance

#### 15.5.1 - Please rate the level of support in terms of training and guidance from the following entities in completing this questionnaire

UNESCO World Heritage Centre

Fair

UNESCO (other sectors/field offices)	Not applicable
UNESCO National Commission	Good
ICOMOS International	Not applicable
IUCN International	Not applicable
ICCROM international/regional	Not applicable
ICOMOS national/regional	Not applicable
IUCN national/regional	Not applicable

# 15.5.2 - Please rate the level of support for completing the Periodic Reporting questionnaire from the following entities

UNESCO World Heritage Centre	Fair
State Party Representative (national Focal Point)	Good
UNESCO other sectors (e.g. field office)	Not applicable
National Commission for UNESCO	Fair
ICOMOS International	Not applicable
ICCROM International/regional	Not applicable
ICOMOS national/regional	Not applicable
IUCN national/regional	Not applicable
IUCN International	Not applicable

15.5.3 - Were the online training resources prepared by the World Heritage Centre regarding Periodic Reporting adequate for you to complete this questionnaire?

Yes

# 15.5.4 - If you found that the online training resources were not adequate, what changes would you like to see implemented?

15.6. Actions that will require formal consideration by the World Heritage Committee

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

### [•] Map(s)

Reason for update: The World Heritage Centre identified in December 2022 that they did not hold an up-to-date clear map which showed the delimitation of the property. We are in the process of producing the requested map in line with the WHC's technical requirements, with support from Historic England and CADW. It will be submitted for the approval of the World Heritage Committee in advance of 46COM along with others from the UK State Party.

# * Statement of Outstanding Universal Value for the property as adopted by the World Heritage Committee

Reason for update: Within the Protection and Management requirements section of the OUV statement 'British Waterways' are mentioned. British Waterways no longer exists and the assets and responsibilities transferred to 'Canal & River Trust'. Therefore in the OUV statement 'British Waterways' should be replaced with 'Canal & River Trust'.

Changes to these items will need to go through the proper processes.

- 15.7. Comments, conclusions and/or recommendations related to the Assessment of the Periodic Reporting Exercise
- 15.7.1 Comments, conclusions and/or recommendations related to the Assessment of the Periodic Reporting Exercise

15.7.2 - Thank you for having filled in all the questions. Please contact your National Focal Point for validation.