Pontcysyllte Aqueduct and Canal World Heritage Site

Management Plan 2019-2029



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List of Abbreviations

AONB Area of Outstanding Natural Beauty

CRoW Act Countryside and Rights of Way Act

EU European Union

LDP Local Development Plan

NPPF National Planning Policy Framework

OUV Outstanding Universal Value

RCAHMW Royal Commission on the Ancient and Historical Monuments of Wales

SAC Special Area of Conservation

SAM Scheduled Ancient Monument

SPD Supplementary Planning Document

SSSI Site of Special Scientific Interest

STEAM Scarborough Tourism Economic Activity Monitor

UNESCO United Nations Educational Scientific and Cultural Organisation

WHS World Heritage Site

WFG Act Well-being of Future Generations Act

Chapter 1 Introduction

What is a World Heritage Site?

- 1.1 The concept of World Heritage was created in 1972 at the UNESCO (United Nations Educational Scientific and Cultural Organisation) World Heritage Convention. World Heritage Sites are places where their cultural and/or natural significance 'is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity' (UNESCO World Heritage Committee).
- 1.2 Over one thousand sites have now been inscribed on the World Heritage List globally, reflecting properties of all ages and types and including cultural landscapes and industrial sites. There are three World Heritage Sites in Wales (the Castles and Town Walls of King Edward in Gwynedd, the Blaenavon Industrial Landscape, and the Pontcysyllte Aqueduct and Canal). Cadw describe World Heritage Sites as 'places to cherish and celebrate forever', as part of a truly exclusive collection of international significance.
- 1.3 To be included on the World Heritage List, sites must have Outstanding Universal Value (OUV). The statement of OUV gives a clear, shared understanding of the reasons for the site's inscription and identifies what it is about the site that needs to be managed over the long-term.

Purpose and Structure of the Management Plan

- 1.4 The Management Plan provide the framework by which the Outstanding Universal Value of a World Heritage Site will be maintained, sustained and communicated.
- 1.5 The structure of this Management Plan is as follows:
 - **Chapter 2** sets out the Outstanding Universal Value for the Pontcysyllte Aqueduct and Canal World Heritage Site, together with reasons for inscription, cultural significance, attributes, authenticity and integrity.
 - **Chapter 3** summarises the policy and planning context within which the Pontcysyllte Aqueduct and Canal World Heritage Site is protected.
 - **Chapter 4** identifies by theme, those issues and opportunities that may potentially affect the World Heritage Site during the Management Plan period.
 - **Chapter 5** details the vision and objectives for the World Heritage Site, together with links to the Wellbeing of Future Generations (Wales) Act 2015 and the United Nation's Sustainable Development Goals (2015).
 - **Chapter 6** provides the Action Plan, including actions, lead organisations and timescales for delivery.
 - **Chapter 7** sets out monitoring processes.

Pontcysyllte Aqueduct and Canal World Heritage Site

1.6 The Pontcysyllte Aqueduct and Canal World Heritage Site is an 11 mile (18 km) linear stretch of canal and associated features, combining the northern end of the Ellesmere Canal and the Llangollen Canal that joins it at Trevor Basin. The majority of the World Heritage Site (10.5 miles) lies within Wales, with the remaining 0.5 miles within England. It was inscribed as a World Heritage Site in 2009, as a masterpiece of historic transport development and an outstanding example of the advances in canal building in the Industrial Revolution, one of the fundamental turning points of human history.

1.7 This Management Plan does not provide a comprehensive history or analysis of the World Heritage Site and its Buffer Zone; detailed information can be found in a range of other documents including the Nomination Document produced in 2007¹. A full list of references and technical information relating to the historical background of the World Heritage Site and features contained within it, can be found at Appendix A of this Management Plan. The sections below provide a summary of the historical and geographical context.

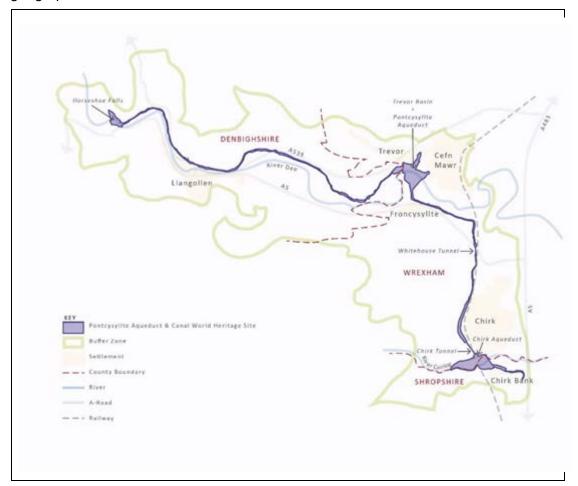


Figure 1.1 Extent of the World Heritage Site

Historical Context

- 1.8 The Ellesmere (now Llangollen) Canal was built during the period of 'Canal Mania' between 1793 and 1808. One of the reasons for its promotion was a necessary requirement for the expansion of the ironworks, collieries and associated industries within the Ruabon and Wrexham district. Constructed to the designs of William Jessop and Thomas Telford, two pre-eminent engineers of the late 18th / early 19th century, the canal brought water-borne transport from the English lowlands into the rugged terrain of the Welsh uplands, using innovative techniques to cross two major river valleys and the ridge between them.
- 1.9 A navigable feeder canal from Trevor to the River Dee at Llantysilio (the Llangollen Branch) was begun under a separate Act of Parliament in 1804, its purpose being to feed water to the Ellesmere Canal system from water abstracted at the Horseshoe

¹ The nomination documents for the Pontcysyllte Aqueduct and Canal World Heritage Site can be found here https://whc.unesco.org/en/list/1303/documents/

- Falls, as well as to serve the town of Llangollen and nearby slate and limestone quarries.
- 1.10 At the time of its completion this length of canal was described as 'composed of works more difficult of execution than can perhaps be found anywhere within an equal distance of canal navigation'. The engineers intervened in the landscape with a new scale and intensity, challenged by the need to cut a waterway across the grain of the Welsh upland topography. All of the features that were to become characteristic of highly-engineered transport routes can be found here, including tunnels, cuttings, aqueducts and embankments, many of them technically innovative or of monumental scale, together with bridges, culverts, weirs and associated features.
- 1.11 Pontcysyllte Aqueduct was Thomas Telford's earliest internationally-recognised achievement and the major work with which he chose to be depicted in his portrait as first President of the Institution of Civil Engineers. William Jessop was one of the most productive engineers of the Canal Age.
- 1.12 Although the original purpose of the canal as a through route between the Rivers Severn and Mersey was abandoned in 1798, the canal retained an important role as a terminus at Trevor Basin (from where links to local industries were created by a tramroad and by a short canal to Plas Kynaston industries) and as a water feeder from Horseshoe Falls. The canal has remained in use continuously for two hundred years; whilst the arrival of the railways reduced the demand for the canal in the later 19th century and commercial traffic had ceased altogether by the time of the 2nd World War, since that time the canal has been used for pleasure boating, as a visitor destination and to convey drinking water. Today, the Llangollen Canal is one of the busiest stretches of canal in the United Kingdom, with some 15,000 boat movements per annum and in the region of 330,000 visitors a year.

Geographical Context

1.13 The canal can be understood in two sections, the first being from Gledrid Bridge to Trevor Basin and the second being the Llangollen arm (referred to as the 'Water Line') from Trevor Basin to Horseshoe Falls. The following is a brief description of the route followed by the canal, together with key features.

Gledrid Bridge to Trevor Basin

- 1.14 Gledrid Bridge near Rhoswiel is the start of the World Heritage Site in Shropshire, on the English side of the border. It is one of the few bridges in the World Heritage Site to be built of brick, the majority being of local stone. It is thought that Gledrid was too far from the stone quarries that provided the material for much of the rest of the canal and so this bridge is more typical of the standard Shropshire Union bridges. Gledrid Wharf was originally the terminus of the Glyn Valley Tramway, built to transport rock and slate from the Ceiriog Valley quarries to the canal.
- 1.15 The canal passes to the north of the village of Chirk Bank, where there is the site of a once important wharf and adjacent canal housing associated with those who worked there. After Chirk Bank, the canal turns north and is carried above the River Ceiriog by the 21m high Chirk Aqueduct, and then through the hillside by means of the 421m long Chirk Tunnel. The Shrewsbury-Wrexham-Chester railway line runs adjacent to the aqueduct and tunnel. The town of Chirk lies to the east of the canal.
- 1.16 Chirk Marina is located midway between Chirk and Froncysyllte and followed by Whitehouses Tunnel. The canal then heads west towards Froncysyllte. Key features along the route include the Irish Bridge Canal Cuttings, a 380m long, 8-10m deep cutting which is regarded as one of the first civil engineering cut and fill schemes, the spoil being used to form the embankment at Froncysyllte. The basin at Froncysyllte provided a terminus for the canal while the Pontcysyllte Aqueduct was being

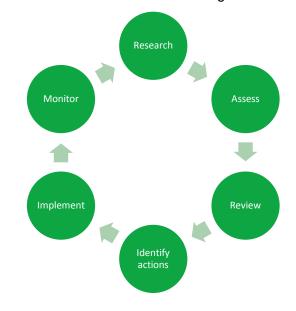
- completed, with trading taking place from the adjacent canal wharf. There is an impressive bank of six limekilns just to the east of Froncysyllte and the Pontcysyllte Aqueduct, built into the escarpment between the canal and the A5.
- 1.17 From Froncysyllte the canal crosses the River Dee to Trevor Basin by means of the Pontcysyllte Aqueduct, which at 38m high and 307m long is one of the most impressive individual features of the World Heritage Site. It remained the tallest navigable aqueduct in the world for two centuries.

Trevor Basin to Horseshoe Falls

- 1.18 Trevor Basin was the most important wharf on the Ellesmere Canal, with the interchange from the canal company's Ruabon Brook Railway (a tramroad serving collieries, ironworks and brickworks). The Plas Kynaston Canal went from the end of the basin towards Cefn Mawr, serving chemical works, limekilns, collieries and other industries. Close to Trevor Basin was a large brick and terracotta works.
- 1.19 The canal runs west from Trevor Basin following a contour along the Dee Valley towards the town of Llangollen, which it passes on the northern side. The town was served by a general goods wharf and warehouse on the canal and Llangollen Marina is located a short distance outside of the town to the west.
- 1.20 From here the canal continues to the Horseshoe Falls, a cast-iron and masonry weir designed by Telford. The canal is at its narrowest along this section, being navigable only as far as Chain Bridge.

The Need for a Management Plan

- 1.21 UNESCO advocates the production of a Management Plan for each World Heritage Site to bring together all responsible parties and enable a co-ordinated approach to the management of the site. This is reflected in recent guidance produced by Cadw which states that one of the three principles of the protection and sustainable management of World Heritage Sites is 'the collaborative creation and implementation of World Heritage Site management plans to ensure the effective and active involvement of all key stakeholders'.²
- 1.22 Management plans should establish a clear framework for decision-making and
 - present policies and actions designed to ensure that the Outstanding Universal Value of the World Heritage Site is maintained, sustained and communicated.
- 1.23 Management plans need to follow an ongoing process of assessment, objective setting, consultation, monitoring and review, in order to take into account changing circumstances and ensure that actions are delivered.
- 1.24 Changes that have taken place since the initial



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Management Plan was produced include to the local and national policy context, as well as administrative and organisational changes. Examples include the passing of the Well-Being of Future Generations (Wales) Act in 2015, with the focus now on improving social, economic, environmental and cultural well-being; in addition to the passing of the Historic Environment (Wales) Act in 2016. Administrative and organisational changes include the expansion of the Clwydian Range Area of Outstanding Natural Beauty (AONB) in 2011 to include much of the Dee Valley, the launch of the Canal & River Trust in 2012 (formerly British Waterways) and local government re-organisation in England resulting in the creation of Shropshire Council. At international level, changes have included the adoption of the 2030 Agenda for Sustainable Development by all United Nations Member States in 2015. The Agenda has 17 Sustainable Development Goals at its heart.

1.25 Opportunities and issues facing the World Heritage Site have inevitably changed since the last Management Plan was produced, for example with visitor numbers increasing as a result of World Heritage Site status and the associated pressures of access and visitor management.

Achievements to Date

1.26 The first Management Plan for the Pontcysyllte Aqueduct and Canal World Heritage Site was produced in 2007 as part of the nomination process for World Heritage Site status. The Plan focused on the conservation of the physical assets, management of land uses and processes that contribute to the Outstanding Universal Value, and improvements in interpretation, access and facilities. Some of the achievements of this first Management Plan period have included:

Protection – the entire canal from the Horseshoe Falls to Gledrid Bridge was scheduled as an ancient monument, and a number of additional buildings afforded listed building status. Changes were made to the boundaries of two Conservation Areas (Trevor Basin and Chirk) and Conservation Area Character Assessments and Management Plans were adopted and for some areas Article 4 (2) Directions were put in place.

Planning – Supplementary Planning Guidance for the World Heritage Site was published in 2012 and adopted by each of the relevant planning authorities. Urban characterisation studies for Cefn Mawr and District and Llangollen were published by Cadw in 2014 and 2016.

Condition – the condition of canal structures continues to be monitored on an annual basis and structures included in the World Heritage Site Gazetteer (a list of all features in the World Heritage Site) were reviewed in 2012 and 2017.

Presentation – signage and interpretation strategies developed and a mobile-phone friendly website was launched in 2016. Promotional material produced showing visitor opportunities for the whole eleven-mile corridor, including production of the World Heritage Site Guide Book, produced by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW). Ongoing education programme with local schools.

Access – improvements to car parks, toilets and towpath along the World Heritage Site including access improvements to Postles Bridge. Access extension to the information point and visitor centre at Trevor Basin, creation of canoe accesses at Llantysilio and repairs to the dry dock at Trevor Basin to provide a venue for a café boat.

Funding – the success of grant funding from the Heritage Lottery Fund under the Our Picturesque Landscape Project, which centres on the landscape of the Dee Valley and the Pontcysyllte Aqueduct and Canal World Heritage Site. The themes of the project are the inspirational journeys that have and continue to be a feature of the area which is cut by the canal, Telford's A5 and the River Dee.

Ownership and Governance of the World Heritage Site

- 1.27 The Pontcysyllte Aqueduct and Canal World Heritage Site crosses three local authority areas (Denbighshire County Council, Wrexham County Borough Council and Shropshire Council) as well as the national boundary between Wales and England. The Canal & River Trust is the principal landowner of the World Heritage Site and the public body with responsibility for the canal and the majority of its structures; other structures (notably bridges) are within the ownership of the three local authorities).
- 1.28 The majority of the World Heritage Site and its Buffer Zone is now located within the extended Clwydian Range and Dee Valley Area of Outstanding Natural Beauty.
- 1.29 Governance arrangements for the World Heritage Site are summarised in Figures 1.2 and 1.3. Figure 1.2 sets out the broad framework within which the World Heritage Site sits, taking into account the international, national and local context.
- 1.30 Figure 1.3 shows in more detail how governance of the World Heritage Site operates at the local level, including the implementation of three Delivery Groups (Visitor Management and Economic Regeneration; Planning, Landscape and Conservation; and Learning). A Community Forum will be established at the outset of the Management Plan period in order to strengthen community engagement and to promote understanding and awareness of the World Heritage Site and its OUV. The Community Forum will comprise representation from both geographical communities and communities of interest and will be used as a mechanism to directly inform and involve local people in various aspects of the World Heritage Site.

Figure 1.2 World Heritage Site Governance Framework

UNESCO

World Heritage Committee

- Oversees the implementation of the World Heritage Convention
- Supported by the World Heritage Centre

UK National Commission for UNESCO

- Focal point in the UK for UNESCO activities
- Promotes UNESCO wider educational, scientific, cultural aims

Department for Digital, Culture, Media and Sport

- Lead government department on World Heritage
- Responsible for ensuring UK fulfils obligations to the World Heritage Convention

The Welsh Ministers Cadw

- Protection of World Heritage Sites in Wales is a devolved matter
- Welsh Ministers responsible for ensuring compliance with the World Heritage Convention, discharged through Cadw

Historic England

 UK Government advisory body on obligations regarding World Heritage

ICOMOS UK

- International cultural heritage advisory body
- Provides non-statutory advice to UK and Welsh Governments

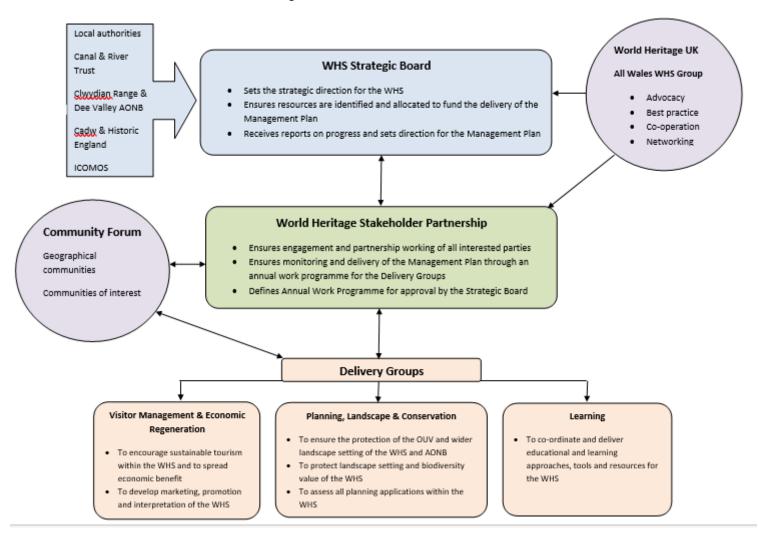
Pontcysyllte Aqueduct and Canal World Heritage Site Strategic Board

 Comprising membership of local authorities (members and officers), the AONB and the Canal & River Trust, as well as advisers (ICOMOS, Cadw, Historic England,)

World Heritage Site Co-ordinator

- Wrexham County Borough Council
- Supported by stakeholder partnership and delivery groups

Figure 1.3 Local Governance



Community and Stakeholder Involvement

- 1.31 The Management Plan has been developed in close collaboration with stakeholders and local communities. A workshop was held for representatives of stakeholder organisations, including Town and Community Councils within which the World Heritage Site and its Buffer Zone sits, local authority officers and elected members, and community groups. Meetings and discussions have taken place with local community groups, civic societies and local businesses to identify community interests, issues and opportunities for the World Heritage Site. Close working has taken place with stakeholder partners such as the Clwydian Range and Dee Valley Area of Outstanding Natural Beauty, in order to ensure a collaborative and consistent approach to management that is beneficial to protecting the special characteristics of both the World Heritage Site and the AONB. The Canal & River Trust operates a comprehensive education programme with local schools through visits and outreach; as part of the preparation of this Management Plan, work with local schools has been offered and undertaken, helping to strengthen links with future generations.
- 1.32 The Management Plan has also been informed by consultation, involvement and engagement with communities undertaken as part of other projects and partnerships. A key example is that of the Our Picturesque Landscape project (OPL) which has received funding from the Heritage Lottery Fund (HLF) and which is centred on the Dee Valley, with the Pontcysyllte Aqueduct and Canal World Heritage Site at its heart. Themes of the project are taken from inspirational journeys that have been, and still are, a key feature of this area. The OPL Conservation Action Plan 'recognises that this is a landscape under extreme and growing pressure, with high and increasing numbers of visitors attracted to some of our most fragile sites' and that 'the communities that live and work here are failing to see the benefits afforded by the landscape and are becoming increasingly disconnected from the heritage of the area'3. The development phase for the project has included a plethora of community engagement events to understand community aspirations, and the overlap with discussions concerning the World Heritage Site has been clear.

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³ Our Picturesque Landscape Conservation Action Plan

Chapter 2 Outstanding Universal Value and Cultural Significance

Introduction

2.1 This Chapter describes the World Heritage Site in terms of its Outstanding Universal Value and cultural significance, including the justification for its inscription, statements relating to its integrity and authenticity, and the wider contribution to Outstanding Universal Value provided by the Buffer Zone and setting.

Statement of Outstanding Universal Value

2.2 The Statement of **Outstanding Universal Value** for the Pontcysyllte Aqueduct and Canal is as follows:

Pontcysyllte Aqueduct and Canal in North Wales, built between 1795 and 1808, is a masterpiece of historic transport development and the greatest work of two outstanding figures in the history of civil engineering: Thomas Telford and William Jessop. Pontcysyllte Aqueduct crossed the Dee Valley by nineteen spans at a height of 126 feet (38.4 metres). It's application of the new technology of cast iron to create the tallest and longest navigable aqueduct in the world was a daring and spectacular achievement. The associated 11-mile (18-kilometre) section of navigable waterway is an outstanding example of advances in canal building in the Industrial Revolution, one of the fundamental turning points of human history. The Site exhibits important international interchanges of values in inland navigation, civil engineering and the application of iron to structural design.

2.3 In order to be inscribed on the UNESCO World Heritage Site list, a site has to demonstrate that it meets one or more of ten criteria, used to assess Outstanding Universal Value, satisfy requirements of authenticity and integrity, and demonstrate the site's importance. The criteria satisfied by the Pontcysyllte Aqueduct and Canal World Heritage Site are identified and elaborated on below and illustrated on Figure 2.1.

Criterion i: 'represents a masterpiece of human creative genius'

- 2.4 Thomas Telford was an innovative and prolific design genius whose influence on civil engineering was manifold and permanent: his work on this site was his first substantial engineering project and his first opportunity to show the innovatory powers of design and project leadership that were to make him world famous. Pontcysyllte Aqueduct became his earliest internationally-recognised achievement. William Jessop was a more modest man who left no account of his achievements, but he was highly respected by his contemporaries and was the most productive engineer of the Canal Age.
- 2.5 Pontcysyllte Aqueduct has been acknowledged by numerous authorities from the nineteenth century to the present day as a masterpiece of the 'heroic' phase of ambitious and imaginative civil engineering at the end of the eighteenth century and a monument that epitomises the courage and conviction of the Enlightenment era. It was recognised by contemporaries as among the world's outstanding structures. Its virtuosity was understood by engineers and architects from many countries, and its extraordinary grace and daring were appreciated by artists, poets and other visitors. Among the words most often used to describe it were 'supreme', 'magnificent', 'beautiful', 'wonderful' and 'stupendous'. Promoters of the project and independent witnesses ranked it with the architectural masterpieces of antiquity: the German landscape architect Prince Hermann von Pückler-Muskau described it as 'a work which would have done honour to Rome'.

- 2.6 Pontcysyllte Aqueduct represents a daringly creative application of new ideas combined with supreme skills in the handling of materials. Within its eighteenth-century context the aqueduct's size alone is remarkable, but its confident early application of cast iron is breathtaking. Its designers investigated and tested the new technology of structural cast-iron, drew together expert craftsmen and made successive innovations during the project's conception and development. They created a canal structure of unprecedented lightness and elegance and achieved a crossing of a height and length that would have been impossible by existing methods. It remained the tallest navigable aqueduct in the world for two centuries.
- 2.7 The French art historian Pierre Francastel wrote that Telford was among 'the real initiators of an intellectual revolution that led to the idea of functionalism, and started the whole complicated evolution of modern architecture'. Pontcysyllte and Chirk Aqueducts may be seen as among the prominent early models of functional aesthetics. New materials and methods released them from previous restrictions of proportion and produced new structural expressions. Their designers believed that form should follow function and spurned architectural embellishment while expressly intending to create serene and noble structures, and both aqueducts were admired by commentators as objects of beauty. The French mathematician and engineer Charles Dupin called Pontcysyllte Aqueduct 'a supreme work of architecture, elegant and unadorned'.
- 2.8 The canal as a whole was recognised as having combined rigorous engineering with sensitivity to a valued landscape. A contemporary commentator declared that 'the Canal Works between the north bank of the River Dee and the south bank of the Ceiriog, consisting of two large Aqueducts, two Tunnels and a great extent of deep cutting, will gratify those who enjoy the effects of works of art, when executed on a large scale'. Another wrote after Telford's death, 'Mr Telford executed the difficult task so as not only to avoid injuring the natural charms of the spots he touched upon, but absolutely to enhance their attractions in a high degree'. The canal's extraordinary grace as a sensitive addition to the landscape was perceived by contemporaries and continues to be appreciated by visitors today.

Criterion ii: 'exhibits an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design'

- 2.9 The World Heritage Site bears testimony to an international interchange with regard to the technology and promotion of canals. The Ellesmere Canal and others of the Industrial Revolution in Britain drew on the engineering achievements of France in the eighteenth century; but they marked a new beginning in the promotion of increasingly sophisticated inland waterways for economic development, especially in coalfield areas. This model was subsequently pursued in other industrialising regions in Europe and North America.
- 2.10 The continuing interchanges of values took place by several mechanisms: British canals were visited and studied by statesmen, promoters and engineers from other countries, accounts of the canals were widely published and circulated, British engineers advised on projects overseas, ideas were passed through successive generations of protégés and assistants, and professional engineering institutions promoted good practice. The important works within the World Heritage Site figured strongly in such interchanges.
- 2.11 The World Heritage Site exemplifies in particular the transition between transport routes that followed the landscape and ones that commanded it to serve more efficiently the needs of industrial economies a principle taken forward in later

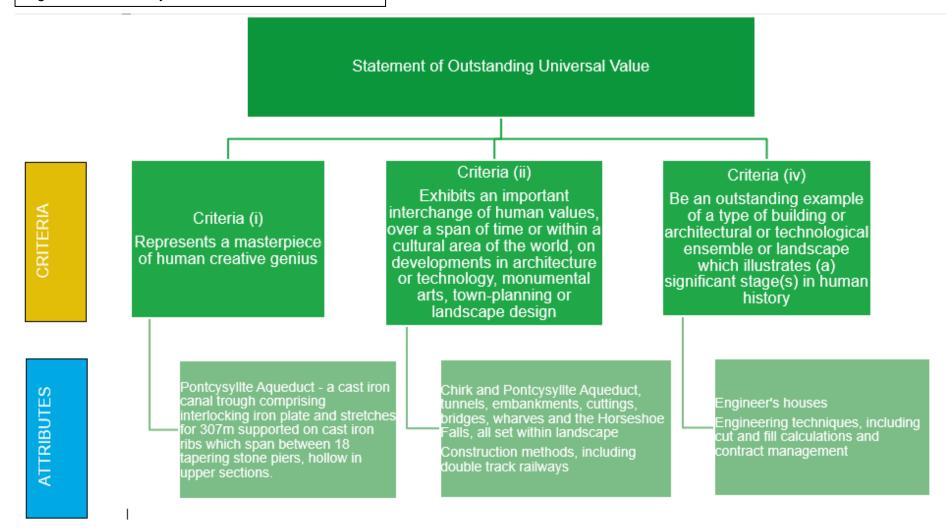
canals, railways and roads throughout the world. It was arguably the greatest of a number of waterways built in the 1790s that were significantly more ambitious in design and investment than those of the previous decades. Telford wrote in 1805, 'this division of the canal is composed of works more difficult of execution, than can perhaps anywhere be found within an equal distance upon Canal Navigation'. It is understood as the first canal of the 'heroic' rather than the 'pioneering' phase of canal engineering, and the unprecedentedly ambitious crossing of the Dee Valley by embankment and aqueduct symbolises supremely the rigour and confidence of the new approach.

- 2.12 Pontcysyllte and Chirk Aqueducts proved the potential of iron in construction. The international fame of Pontcysyllte Aqueduct as a daring demonstration of what could be achieved with iron promoted ongoing development of iron construction in bridges and buildings. Telford himself went on to be recognised as one of the greatest exponents of the iron road bridge. Metal aqueducts continued to be built in many countries. Wrought iron, steel and then steel-reinforced concrete became the materials of choice for major structures worldwide.
- 2.13 The canal was a testing ground for many new practices developed through the creative dialogue between its two engineers that were carried forward into subsequent engineering and management internationally. In addition to intensively-engineered routes and iron construction, discussed above, the following were among the most important.
 - Telford established the professional ethos of the engineer and principles of contract management that are still in use internationally.
 - Telford and Jessop established clear lines of responsibility between specialists that permitted major projects to be achieved: this is evident in the Nominated Site in the houses for resident engineers.
 - Telford developed cut-and-fill calculations, making possible the ambitious scale
 of earthworks on the canal by ensuring the efficient movement of spoil. This
 proved critical for railway-building world-wide and is still used in modern
 engineering practice.
 - The large-scale use of construction railways to move spoil and deliver materials was fundamental to the major works in the World Heritage Site. Such techniques were further developed internationally.
- 2.14 Telford and Jessop were directly concerned with interchanges that influenced engineering in other countries. They undertook or advised on projects in Sweden, Ireland, India, the United States of America and Canada. They mentored and influenced younger engineers who worked in all parts of the world. The work of Telford and Jessop was studied by engineers and commentators from many countries. Telford was recognised as one of the outstanding figures in the rise of civil engineering as a profession and his principles were incorporated into international practice. His work was extensively published and known internationally. The Institution of Civil Engineers, of which he was the first President, now has 80,000 members in 150 nations.
- 2.15 Pontcysyllte Aqueduct also exhibits an interchange of human values in conservation. It was recognised in the pioneering works of industrial archaeology and was one of the iconic structures of the early industrial heritage movement. In the 1940s it helped to inspire the formation of one of the earliest industrial conservation organisations, the Inland Waterways Association, which campaigned to save it from closure. It was among the earliest industrial structures to be designated a Scheduled Ancient Monument of National Importance, in 1958. In 1973 it was visited by the first ever international conference on the conservation of the industrial heritage.

Criterion iv: 'be an outstanding example of a type of building or architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history'

- 2.16 The World Heritage Site is an outstanding material representation of the improvements in transport that stimulated and enabled the Industrial Revolution, one of the fundamental turning points of human history.
- 2.17 The process of industrialisation that began in Britain and spread to the rest of Europe, North America and the entire globe altered the economic and social basis of life. Pontcysyllte Aqueduct and Canal bears witness to many of the prime changes embodied by the Industrial Revolution, for example:
 - Improved means of transport as illustrated by the canal as a construction through a landscape not previously served by bulk transport.
 - New technologies are illustrated by the successive technical solutions developed by Jessop and Telford during the course of the project.
 - The development of *new economic structures* is exemplified by the construction of the canal by a joint stock company. British canals were among the first enterprises to raise capital through mass shareholding.
 - Increasing capitalisation is illustrated by the canal as a technological ensemble
 designed to replace labour with capital through the creation of more efficient
 means of carriage. The canal, with its sequence of challenging engineering
 works, was more highly capitalised per mile than any that preceded it.
 - Increased inter-regional trade is illustrated by the physical connection made by the canal to external and world markets and by the installations for incoming and outgoing trade that grew up on its banks.
 - Accelerating growth in output is reflected in the scale of waterway planned by the canal's promoters, based on their expectations of rapidly increasing trade, and the evidence for the canal's subsequent use.
 - The shift to fossil fuels is illustrated by the effort expended to carry the canal
 across the Dee Valley to the northern part of the coalfield. Coal was the major
 traffic on the canal throughout its working life.
- 2.18 Inland waterways were the prime mode of industrial transport throughout the course of the British Industrial Revolution. They were vital in opening up the coalfields to economic exploitation and increased the efficiency of the whole economy. England and Wales were eventually served by some 5,340 miles (8,600 km) of navigable inland waterways, an industrial transport system that was not surpassed until the expansion of locomotive railways after 1830. The World Heritage Site is an outstanding example of a technological ensemble that illustrates these changes and has remained in use continuously for over 200 years.

Figure 2.1 Summary of OUV Criteria and Attributes



Attributes

- 2.19 Attributes are those elements of the site that demonstrate Outstanding Universal Value. UNESCO's Operational Guidelines describe a range of possible attributes, including tangible aspects such as form and design, materials and substance, use and function, location and setting; as well as intangible aspects such as language, spirit and sense of place.
- 2.20 The attributes for the Pontcysyllte Aqueduct and Canal World Heritage Site are summarised on Figure 2.1. Broadly, the attributes relate to a number of areas, including:
 - Form and design for example the route of the canal, the earthwork formation, form and dimensions of the aqueducts, the form of wharves and warehouses at Llangollen and Trevor Basin, the survival of houses for resident engineers and nineteenth century canal workers in their original forms and groupings.
 - **Materials and substances** use of traditional materials and conservation techniques in recent years.
 - **Use and function** the continued use of the canal for boating purposes follows a tradition that extends back to the early nineteenth century; the use of the Llangollen arm to the Horseshoe Falls as a water feeder as well as a navigation
 - Traditions, techniques and management systems this section of canal has been maintained as an operating waterway by a succession of large transport undertakings which have provided continuity of management from the Ellesmere Canal Company through to the Canal & River Trust today; passing on traditional skills, for example the canal 'lengthsman'; use of traditional maintenance, repair and conservation techniques which respect the qualities and integrity of original workmanship; continued boating activity on the canal.
 - Location and setting the striking relationship between the canal and the landscape, including the fact that the western half of the Buffer Zone has maintained a rural aspect similar to that of the area when the canal was built.

Integrity and Authenticity

- 2.21 Integrity is derived from the completeness of the attributes described that demonstrate the OUV. UNESCO has acknowledged that the integrity of this canal has been maintained in the hydraulic and civil-engineering structures that have survived in their original form. This is notwithstanding the repairs that have been necessary to embankments to address problems of stability and have required the use of non-traditional materials and techniques for structural and weatherproofing reasons. Such works are justified in the management of the World Heritage Site in order to maintain the hydraulic operation of the waterway and to conserve its overall morphological characteristics. The integrity of the landscapes and the Buffer Zone contributes to the overall value of the World Heritage Site.
- 2.22 UNESCO concluded at the time of inscription that 'the property has all the elements of integrity necessary for the expression of its value as a major historic canal of the Industrial Revolution'.
- 2.23 **Authenticity** is derived from the link between the attributes and the Outstanding Universal Value. The buildings associated with the canal and its environment usually achieve a good degree of authenticity. The few structural changes that have been made to the Pontcysyllte and Chirk Aqueducts have remained secondary, contributing to maintaining their use. Changes in materials have remained restricted, although during the twentieth century repairs to masonry did not always use the original types of mortar or stone.

Buffer Zone and Setting

- 2.24 UNESCO's Operational Guidelines describe a buffer zone as an area surrounding a World Heritage Site which has complementary legal and/or customary restrictions placed on its use and development to give an added layer of protection. Cadw guidance goes on to describe a buffer zone as a management tool which 'can be used to highlight areas where potential impacts need to be given careful consideration by developers and decision-makers, and where planning restrictions may be appropriate'⁴.
- 2.25 The Outstanding Universal Value of the Pontcysyllte Aqueduct and Canal World Heritage Site is not contained purely within the inscribed area. Features within a wider area that contribute to the Outstanding Universal Value include the cultural and aesthetic landscape, sense of arrival, views, and distinctive character and sense of place. Accordingly, a Buffer Zone exists around the World Heritage Site, which allows these historic, cultural and landscape elements to be conserved. The boundary of the Buffer Zone follows the principal ridgelines of the Dee, Chirk and Ceiriog valleys. The majority of the Buffer Zone is now included within the extended Clwydian Range and Dee Valley AONB.
- 2.26 The Buffer Zone contains within it a number of settlements from west to east these are Llantysilio, Llangollen, Garth, Trevor, Cefn Mawr, Froncysyllte, Chirk and Chirk Bank. The growth and development of settlements within the Buffer Zone are intimately linked to the developments in transport and in particular to the construction of the Llangollen Canal.
- 2.27 A particular example is that of Cefn Mawr until the Industrial Revolution of the late 18th and early 19th Centuries, Cefn Mawr was an undeveloped rural area situated within the Parish of Ruabon. However, the construction of the Pontcysyllte Aqueduct formed the hub of Cefn's industrial development and was a catalyst for growth, leading to an influx of entrepreneurs and workers to the area and doubling the population of Ruabon at that time. Industries included the Plas Kynaston and New British Iron Company foundries, large collieries at Plas Kynaston and Wynnstay and the Plas Kynaston Brickworks.⁵
- 2.28 The Buffer Zone also incorporates a wealth of heritage sites and designations, that may either have a direct link with the World Heritage Site (for example features associated with its construction such as limekilns or canal workers housing) or which form part of the wider setting of the World Heritage Site. Examples here may include Chirk Castle, Dinas Bran and Plas Newydd.
- 2.29 The Buffer Zone has a value in its own right where it creates a sense of arrival to the World Heritage Site; buildings, sites or landscape features may not be visible to or from the World Heritage Site but may be important to the character of that particular area.
- 2.30 Other important aspects of a World Heritage Site that require protection relate to its setting and to significant views. Setting includes 'the surroundings in which a historic asset is understood, experienced and appreciated, embracing past and present relationships to the surrounding landscape. Importantly for the Pontcysyllte Aqueduct and Canal World Heritage Site, setting relates to how a site was intended

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http://cadw.gov.wales/docs/cadw/publications/historicenvironment/20170531Managing%20Change% 20in%20World%20Heritage%20Sites%20in%20Wales%2031146%20EN.pdf

http://cadw.gov.wales/docs/cadw/publications/historicenvironment/20170531Managing%20Change%20in%20World%20Heritage%20Sites%20in%20Wales%2031146%20EN.pdf

⁵ Extracted from Cefn Mawr Conservation Area Character Assessment, Wrexham CBC, 2012

- to fit into the landscape, the views from it, and how the site is seen from the surrounding area.
- 2.31 Within the Buffer Zone are significant views which have historic or cultural value, for example from historic sites like Castell Dinas Bran or the A5, from visitor attractions, or from national trails such as the Offa's Dyke, Clwydian Way and Maelor Way.

Findings of the Periodic Review 2014

- 2.32 Periodic reporting is a six-yearly reporting cycle which forms one of the core conservation monitoring mechanisms of the World Heritage Convention. It is a self-reporting process, whereby those with responsibility for the World Heritage Site are required to complete a short questionnaire outlining changing circumstances and management needs. The 2014 Periodic Review highlighted that:
 - the boundaries of the World Heritage Site, together with the Buffer Zone, are both adequate to maintain the Outstanding Universal Value, although awareness of the boundaries amongst local residents, communities and landowners is poor;
 - the legal framework for the maintenance of the Outstanding Universal Value for the World Heritage Site and its Buffer Zone, including conditions of integrity and authenticity, provides an adequate or better basis for effective management and protection;
 - co-ordination between the range of administrative bodies responsible for the management of the World Heritage Site could be improved;
 - the available budget for basic management needs of the World Heritage Site is inadequate and presents a serious constraint to management capacity. Further, the ability to significantly improve the area for tourism has been limited due to existing budgets being restricted as a result of the UK economic recession; and
 - in terms of benefits, the Periodic Review notes that there has been some flow
 of economic benefits to local communities, and that World Heritage status has
 influenced education and awareness building activities, but that more could be
 achieved in both these areas.

Chapter 3 Protecting the World Heritage Site

Introduction

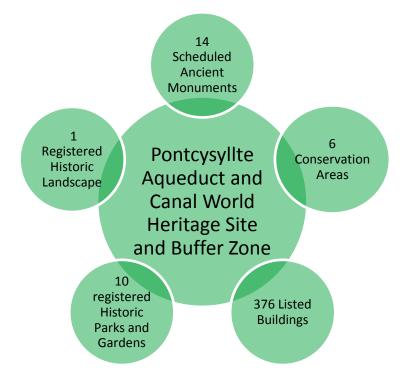
3.1 This chapter sets out how the World Heritage Site and its features are protected by means of national and local policy and guidance under the headings of cultural heritage, natural environment and land-use planning. A full description of the policy context, including further detail on the various heritage and environmental designations referred to in this chapter can be found at Appendix B.

Cultural Heritage Protection

- 3.2 World Heritage Sites in England and Wales are protected through the statutory designation of individual historic assets and the town and country planning system, which provides a framework for policy at the local level. Relevant policy and guidance at the national level is summarised below.
- 3.3 In Wales, the Historic Environment (Wales) Act is at the heart of an integrated suite of policy and guidance designed to protect and manage the Welsh historic environment, reflecting current conservation principles and practice. Cadw best practice guidance produced in May 2017 relates specifically to managing change in World Heritage Sites, the setting of historic assets in Wales, and heritage impact assessment.
- 3.4 In England, the revised National Planning Policy Framework (NPPF) published in July 2018 sets out the government's planning policy, including with regard to the historic environment. and is supported by National Planning Practice Guidance (2012). Planning practice guidance will, where necessary, be updated in due course to reflect changes to the National Planning Policy Framework.

Heritage Designations

3.5 The World Heritage Site and important features within its Buffer Zone are further protected via a range of heritage designations. The entire length of the canal within the World Heritage Site has now been designated as a Scheduled Ancient Monument, with the scheduled area extending from the southern end of the Chirk



Aqueduct to Trevor Basin and the terminus of the canal and then west along the Llangollen Canal to the Horseshoe Falls. Pontcysyllte Aqueduct itself has been scheduled since 1958.

Natural Environment Protection

3.6 The Environment (Wales) Act 2016 will enable the sustainable management of Wales' natural resources in a joined-up way that delivers real outcomes for the environment, people, the economy and communities. The Act provides a framework that ensures that managing natural resources sustainably will be a core consideration in decision-making.

Environmental Designations

- 3.7 Nearly 90% of the World Heritage Site and its Buffer Zone falls within the Clwydian Range and Dee Valley Area of Outstanding Natural Beauty (AONB). AONBs are protected, conserved and managed through the delivery of a statutory management plan⁷ and are recognised at international level as one of six categories of protected areas where the interaction of people and nature over time has produced an area of distinct character with significant ecological, biological, cultural and scenic value.
- 3.8 In addition to the AONB, the Pontcysyllte Aqueduct and Canal World Heritage Site contains other environmental designations, including the River Dee and Bala Lake Special Area of Conservation (SAC), and the River Dee Site of Special Scientific Interest (SSSI).

Land Use Planning

- 3.9 Local planning policy is brought together under the Pontcysyllte Aqueduct and Canal Supplementary Planning Document⁸ jointly adopted in June 2012 by Wrexham County Borough Council, Denbighshire County Council and Shropshire Council. The SPD 'amplifies development plan policies of the three respective Councils and is a material consideration in the determination of planning applications that affect the World Heritage Site and its setting'. The aim of the SPD is to 'ensure the integrity of the Pontcysyllte Aqueduct and Canal World Heritage Site, its buildings, structures and landscape are maintained. New development should ensure no adverse impact'.
- 3.10 Policy protection is also provided by means of local planning policies produced by each of the three local authorities. The current status of development plans is shown below. Consistent policies for the specific protection and presentation of the World Heritage Site are found throughout the recently adopted plans; the policies in the deposit Wrexham LDP are similar to those of both Denbighshire and Shropshire.

⁷ http://www.clwydianrangeanddeevalleyaonb.org.uk/plans-and-strategies/

⁸ https://www.pontcysyllte-aqueduct.co.uk/world-heritage-status/resources/reference-documents/



Denbighshire CC Local Development Plan (2006-2021) - adopted in 2013



Shropshire Council Core Strategy - adopted in 2011

Local Plan Partial Review (2016-2036) - development management policies adopted in 2015

Includes Oswestry and Surrounding Area Place Plan (2015-2016)

- 3.11 No part of the World Heritage Site or the Buffer Zone is 'white land' (land without some form of designation in development plans). The entire area therefore enjoys protection under the development control system. Most areas of currently undeveloped land are subject of local designations for protection of landscape or green-space, for example as Green Wedge and Special Landscape Areas.
- 3.12 Article 4 (2) directions are a legal direction made under the Town and Country Planning (General Permitted Development) Order 1995 and restrict the scope of permitted development rights in an area, allowing the local planning authority to control works that could threaten the character of an area of acknowledged importance.
- 3.13 At present there are Article 4 (2) Directions currently in operation within the Chirk, Pontcysyllte Aqueduct and Cefn Mawr Conservation Areas within Wrexham and within the Llangollen and Plas yn Pentre Conservation Areas in Denbighshire.

Statutory Duties and Responsibilities

3.14 The protection and management of the World Heritage Site is the responsibility of the main partner organisations.

Canal & River Trust

- 3.15 The Canal & River Trust is the majority landowner, owning most of the waterway structures along the canal. The Trust is a registered charity who inherited the statutory functions of British Waterways in England and Wales and who is subject to statutory requirements including the proper maintenance of the canal and its structures, and the conservation of built and natural heritage. The Trust's comprehensive Heritage Policy sets out a series of general and practical principles which are to be applied to all works affecting the waterways.
- 3.16 Routine operations of the Canal & River Trust are largely exempt from land-use planning (the Trust has the benefit of a number of permitted development rights) but are not exempt from heritage protection controls. The Trust complies with these through an asset management system (routine inspections carried out to monitor condition and inform maintenance and repair programmes) and corporate policies. Works by third parties are subject to an approval procedure set out in the Code of Practice for Works affecting the Canal and River Trust.
- 3.17 Further information relating to the Canal & River Trust's statutory duties and responsibilities can be found at Appendix C.

Pontcysyllte Aqueduct and Canal Strategic Board

- 3.18 The purpose and composition of the Strategic Board was outlined in Chapter 1. The Strategic Board meets at least twice a year, with a secretariat provided by Wrexham County Borough Council, and has overseen the production of the revised Management Plan. A Terms of Reference has been prepared for the Strategic Board.
- 3.19 Key tasks of the Strategic Board include:
 - Setting the strategic direction for the World Heritage Site;
 - Ensuring resources are identified and allocated to fund the delivery of the Management Plan;
 - Encouraging engagement and partnership working with all interested parties to ensure the OUV of the site is preserved through participatory means.
- 3.20 The Strategic Board is supported by a Stakeholder Partnership which meets quarterly and four Delivery Groups (Planning, Landscape and Conservation; Visitor Management and Economic Regeneration; Community; and Education) which have been formed to take forward specific actions or objectives.

Local Authorities

- 3.21 Local Authorities own many of the structures within the World Heritage Site, in particular bridges. These are inspected in accordance with relevant Codes of Practice. Where authority owned structures are listed or otherwise designated, works are subject to formal consent as required.
- 3.22 Local authority owned assets within the Buffer Zone include Dinas Brân Castle and Plas Newydd (owned by Denbighshire County Council). Denbighshire and Wrexham Councils both operate public car parks and toilets that provide access to the World Heritage Site and the Buffer Zone notably at Trevor Basin, Llangollen, Ty Mawr and Llantysilio.

Clwydian Range and Dee Valley AONB

- 3.23 The majority of the World Heritage Site and its Buffer Zone are included within the Clwydian Range and Dee Valley AONB. The purposes, duties and management requirements for AONBs are set out in the Countryside and Rights of Way (CRoW) Act 2000; Section 89 of the CRoW Act requires the local authorities in whose area an AONB lies to prepare and publish an AONB Management Plan to guide policy development and management actions. Planning authorities need to ensure that development proposals do not unduly harm the character and appearance of the AONB, are sensitively located and designed, and complement or enhance the special qualities and features of the area.
- 3.24 The Joint Committee of the AONB represents and acts on the behalf of the three local authorities of Wrexham, Denbighshire and Flintshire, supported by a wider AONB Partnership and an Officer's Working Group. An AONB Management Plan is in place and Supplementary Planning Guidance covering the AONB was published in June 2018.

Cadw and Historic England

- 3.25 Cadw and Historic England both have a statutory role with respect to scheduled monuments and have responsibility for administering scheduled monument consent.
- 3.26 Land and historic properties in the Buffer Zone which are owned and managed for public benefit by Cadw include Valle Crucis Abbey and Eliseg's Pillar.

National Trust

- 3.27 The National Trust is a charity with a purpose of looking after special places throughout England, Wales and Northern Ireland 'for ever, for everyone'. Governance arrangements are underpinned by Acts of Parliament; current arrangements are described in the Charities (National Trust) Order 2005.
- 3.28 The Grade 1 listed Chirk Castle, located within the World Heritage Site Buffer Zone, is in the ownership of the National Trust.

Network Rail

3.29 Network Rail own and maintain Chirk railway viaduct. This is maintained to the highest standards given its function in carrying a main line railway and is subject to rigorous and regular examination.

Chapter 4 Key Themes, Issues and Opportunities

Introduction

4.1 This Chapter sets out issues and opportunities facing the World Heritage Site under ten key themes, identified through consultation with key partners and stakeholders, as well as through research and analysis. The key themes have been used to develop objectives and actions to underpin the Management Plan and guide the future work programme for the World Heritage Site.

Key Themes

Theme 1 Conservation and Maintenance

- 4.2 The Gazetteer which accompanies this Management Plan (a summary of which is found at Appendix D) lists all features of the World Heritage Site in geographical order from east to west and shows ownership, protection and the current state of conservation (categorised as good, fair, fair* and poor). Resurveys of the features listed in the Gazetteer have been undertaken in 2012 and 20179. In the latest resurvey, the condition of 20% of features in the Gazetteer has improved and one third of the 168 features listed were identified as being 'fair'; however, the condition of over 10% of features has deteriorated since the previous survey and over 30% of features are identified as being below fair.
- 4.3 Conservation and maintenance of the historic fabric is clearly essential to safeguarding the Outstanding Universal Value of the World Heritage Site and notably its authenticity. There is a need both for ongoing maintenance of the features and structures that make up the World Heritage Site as well as for review of repairs undertaken in the past that may have used inappropriate materials. The challenge is to ensure that repairs and conservation work are undertaken in an appropriate way, using traditional techniques and materials.
- 4.4 Traditional Building Skills training sessions were run in conjunction with the Cefn Mawr Townscape Heritage Initiative over a five year period, with the aim of improving skills in traditional building techniques such as stone masonry, lime plastering and window repair. Despite this, there continues to be a potential skills gap in this area, with a lack of experienced young people taking up traditional skills and existing rural skills contractors approaching retirement age. There are opportunities to provide new job opportunities and encourage skills development through working in partnership with local colleges and with partner organisations such as the AONB. The Canal and River

Trust has been responsible for exemplary repairs within the World Heritage Site and there are opportunities for showcasing local heritage skills as part of ongoing maintenance and conservation works.

4.5 Routine inspections of individual structures and the canal itself are undertaken to monitor condition and inform the maintenance and repair programme (of the Canal & River Trust, as the principal landowner). This also includes monitoring of vegetation growth where this may impact upon the condition of the World Heritage Site (for example in terms of invasive species) or on views and setting.

4.6 The Periodic Report (2014) highlighted maintenance issues affecting the World Heritage Site that could be improved, namely the impacts of invasive species (notably Japanese Knotweed and mink). The Canal & River Trust has a programme for dealing with invasive species on its waterways, although this can be challenging and for some species can be very reliant on volunteer time. The Clwydian Range and

Shortages and

knowledge gaps exist

in traditional

building skills

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⁹ Wrexham County Borough Council (2017), State of Conservation Report

- Dee Valley AONB Management Plan includes actions to address invasive species through links with the North Wales Wildlife Trust; the Our Picturesque Landscape Action Plan similarly highlights opportunities to work in partnership with other broader initiatives to manage non-native species.
- 4.7 Key views of the World Heritage Site have been lost over time as a result of tree growth. This has been identified as a particular issue in Cefn Mawr, where the link between the World Heritage Site and the community is felt to be diminished both physically (as a result of a lack of linkages) and visually. There is an opportunity to reinstate key views through an appropriate tree management programme, in partnership with the AONB.
- 4.8 Partnership working with other groups and agencies, for example wildlife trusts and community groups, can be further developed to assist with conservation and maintenance projects where appropriate.

Theme 2 Protecting the Outstanding Universal Value

- 4.9 Safeguarding the World Heritage Site, its Buffer Zone and wider setting (including views and sense of arrival) from inappropriate development and changes to land-use takes place through the planning system. Achievements during the previous Management Plan period included strengthening a number of protection mechanisms, including designation of the entire canal as a Scheduled Ancient Monument, the extension of the Clwydian Range Area of Outstanding Natural Beauty to include the Dee Valley (and thereby much of the World Heritage Site) and extensions to Conservation Areas.
- 4.10 The need for consistency in the consideration of planning decisions along the World Heritage Site and within the Buffer Zone is a condition of World Heritage Site inscription; this is achieved by means of the publication of a joint Supplementary Planning Document (SPD) to provide guidance to developers and local authority officers alike and consideration of key development proposals by the Planning, Landscape and Conservation Delivery Group. There is an opportunity for this SPD to be revised during the Management Plan period, particularly given the many organisational and policy changes that have taken place since inscription and to provide links with emerging supplementary planning guidance prepared for the AONB. Revisions to the SPD need to take place alongside other actions to improve understanding and awareness of the World Heritage Site at all levels, in order to ensure consistent decision-making.
- 4.11 A review of planning decisions undertaken in 2016 highlighted a number of areas where improvements could be made; these included improvements to processes and procedures (for example promoting pre-application discussions and best-practice) as well as to design (for example the need for a more consistent approach to boundary treatments in order to strengthen identity and sense of place).
- 4.12 Key sites within the World Heritage Site Buffer Zone include the former Flexsys site at Cefn Mawr and the Kronospan works at Chirk. Both sites are immediately adjacent to the World Heritage Site boundary and therefore have the potential to impact upon issues of setting in particular. The Flexsys site is now a cleared brownfield site immediately adjacent to the Trevor Basin and the entire area has been subject to a masterplanning process, the outcomes of which will be incorporated into Wrexham's new Local Development Plan, ensuring that future development in this area continues to take place appropriately and identifying potential opportunities to benefit local communities and visitors alike.
- 4.13 The Kronospan works has been the subject of a recent appeal case, challenged by the local authority on the grounds of potential impact on the character and setting of the World Heritage Site and AONB; the appeal was subsequently allowed by the

Planning Inspectorate In May 2018, with the Inspector concluding that the proposal would not cause significant alterations to the views and that the setting of the World Heritage Site would not be adversely affected. Continued dialogue and where relevant, pre-application discussions, with prospective commercial operators and landowners in close proximity to the World Heritage Site continues to be important therefore.

- 4.14 At a community scale, work has been undertaken in terms of characterisation studies of settlements within the Buffer Zone, notably at Cefn Mawr (the Cefn Mawr and District Characterisation Study) and Llangollen. The wealth of information provided in these studies can help inform future planning policy and decision-making.
- 4.15 At the very local level, one of the issues facing the World Heritage Site that was highlighted in the Periodic Review (2014) relates to garden encroachment. Examples of where this has been evident are listed in the review of planning decisions undertaken in 2016; reasons for why it takes place may include lack of awareness and understanding amongst local residents about the World Heritage Site, what might constitute development, and how it might be restricted.
- 4.16 A final issue relates to the potential loss of undesignated features within the Buffer Zone of the World Heritage Site (for example features associated with construction such as limekilns or quarry workings). These heritage features may be less grand in scale to those such as the Pontcysyllte and Chirk Aqueducts, but nonetheless had a critical role in their construction. Whilst the loss of such features has been mitigated to a certain extent through the preparation of a comprehensive Archaeological Audit which considers the purpose and function of many of these features, there is also scope for conservation of some of the key examples.

Theme 3 Understanding and Awareness

Aqueduct.

- 4.17 The consultations that have been undertaken as part of the preparation of this Management Plan have identified that, although many people are aware of the World Heritage Site designation, there is a lack of awareness and understanding about such things as what the World Heritage Site includes, where its boundaries are, the existence of a Buffer Zone and what that might mean. There is a preconception amongst many people local people and visitors alike that the World Heritage Site is simply the area in the immediate vicinity of the Pontcysyllte
- 4.18 In not fully understanding or appreciating the boundaries of the World Heritage Site and its Buffer Zone, it is perhaps inevitable that there is a corresponding lack of understanding about what is special about this wider area and its contribution to the Outstanding Universal Value of the World Heritage Site. There is a range of work being undertaken to contribute to understanding of the World Heritage Site at locations along the corridor in Llangollen, for example, looking at the 'Four Great Highways' work being developed by the Llangollen 2020 Working Group (focusing on the confluence of the canal, the River Dee, the steam railway and Telford's A5 coach road).
- 4.19 There is clearly much still to be done in terms of **communicating** with a variety of audiences, including local communities, businesses, landowners and key stakeholder organisations.
- 4.20 Community involvement and engagement to date has been through a variety of groups, events and activities. For example, a 'Friends' group (known as Aqueducks) was developed at the time of nomination and included people from communities along the World Heritage Site; similarly, the Aqueduct Community Association is

- made up of volunteer community representatives from the communities of Garth, Trevor and Froncysyllte.
- 4.21 There is an urgent need to implement opportunities for further engagement and involvement with local communities along the entire length of the World Heritage Site corridor, from Gledrid to Llantysilio. Mechanisms to achieve this are being actively explored, including opportunities for a revived and fully inclusive community group and the possibility of a Community Forum, which could hold an annual event around specific themes of the Management Plan.
- 4.22 A programme of education opportunities (the Explorers Programme) has been developed by the Canal & River Trust to help increase understanding and awareness. The Explorers Programme has enabled the recruitment and training of five education volunteers (including a Welsh speaker) to deliver an outreach programme and facilitate school / group visits at Trevor Basin. In 2017/18 this has culminated in a significant engagement programme, for example with over 982 children engaged with through local schools, of which 430 have been at Trevor Basin. Trevor Basin has been awarded the Learning Outside the Classroom 982 children Quality Badge by the Council for Learning Outside the Classroom. The engaged with through Trust has a partnership with the volunteers from the restored Shropshire local schools in 2017/18 Union Fly Boat Saturn and work with them to deliver a week of school visits each year. Information about the programme and educational resources are available for teachers via the World Heritage Site website. Welsh learning resources are also available to download from the Explorers website.
- 4.23 Continuing to **develop** and **promote** the educational offer is of fundamental importance in terms of transmitting the Outstanding Universal Value of the World Heritage Site to future generations. Opportunities include a Youth Ambassador scheme, which has been piloted in the World Heritage Site and will be launched in full during the course of this Management Plan period. Education opportunities along the length of the World Heritage Site corridor need to be further explored.
- 4.24 Improved interpretation of the World Heritage Site, including of features in the Buffer Zone, would assist with improving awareness and understanding of the value of the World Heritage Site for both visitors and local people alike. In addition to understanding about the heritage aspects of the World Heritage Site, there is an opportunity to promote understanding about the biodiversity value of the area, for example the Special Area of Conservation and SSSI designation of the River Dee.
- 4.25 The history of the canal and associated engineering aspects of the two major aqueducts along its length have been well researched. There remains a wealth of areas that could form the basis of future research, which in turn can be used to further understanding and awareness of the World Heritage Site and its importance.
- 4.26 Communities within the Buffer Zone in particular have important connections with the World Heritage Site, for example in terms of the role it has played in the development of the character and morphology of settlements and the role played by inhabitants in the construction and operation of the canal and associated features. The 'social archaeology' of these communities and their inhabitants is an area that should be further explored, looking at the development of principal industries (ironworks, collieries, limestone, brickworks and the chemical industry) and the people whose life and work was associated with the canal. There is a wealth of historical information available in local centres such as the Llangollen Museum, and the Cefn Mawr and District Museum.

Theme 4 Sense of Place

- 4.27 There is scope to create a greater sense of place and cultural distinctiveness along the World Heritage Site corridor through celebrating the natural and built assets of the area, recognising the role played by heritage, Welsh language and culture, involving local communities more actively, and improving the visitor experience.
- 4.28 Cadw has prepared urban character assessments for both Llangollen and Cefn Mawr and the surrounding district, noting how historic character lies at the heart of local distinctiveness and helps create a sense of place¹⁰. The Llangollen Canal has played an integral role in the growth and development of these and other communities, creating a unique urban morphology and cultural function.



- 4.29 The proportion of Welsh speakers in Denbighshire and Wrexham was 24.6% and 12.9% respectively in 2011; both local authorities have seen a decline in the proportion of Welsh speakers since 2001 of -1.8% for Denbighshire and -1.5% for Wrexham. The Welsh language has an important role to play in terms of cultural distinctiveness and contribution to the sense of place of an area. Both Denbighshire and Wrexham have the safeguarding and promotion of the Welsh language as a strategic aim.
- 4.30 Of specific importance is the need to present the World Heritage Site seamlessly, as a linear destination, providing a quality offer for residents and visitors alike at the main hubs along the eleven-mile corridor from the Horseshoe Falls to Gledrid Bridge. Opportunities to achieve this include the creation of more definitive gateways at entrances to the World Heritage Site, to announce arrival and meaning. For example, there is no obvious 'start' to the World Heritage Site at Gledrid Bridge.
- 4.31 The presence of boating activities within the World Heritage Site makes an important contribution to sense of place. Opportunities to accentuate the historic role of boating here could include a boating festival or for visits along the canal by heritage boats.

Theme 5 Health and Well-being

4.32 The Our Picturesque Landscape Conservation Action Plan refers to well-being issues

within the project area (which incorporates the majority of the World Heritage Site) including increasing levels of obesity and inactivity and increased social isolation particularly for older people. The Canal & River Trust is exploring ways across the country by which waterways can help meet the health and well-being needs of local communities. Benefits to local people include improvements to health and well-being as a result of increased physical activity, as well as potential benefits to mental health conditions through interaction with the natural environment or through



volunteering. The Pontcysyllte Aqueduct and Canal World Heritage Site offers the potential for a 'linear park' or resource, along which there can be access for a variety of activities contributing to health and well-being – walking, cycling, watersports (boating, canoeing, paddle-boarding) and angling to name a few.

4.33 The usage of the World Heritage Site by local people in this way brings with it not only the health and well-being benefits described here, but also management challenges. User conflict is an issue which is apparent at various locations along the World Heritage Site, for example between walkers and cyclists on the towpath and

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¹⁰ Llangollen: Understanding Urban Character, Cadw 2017

between canoeists and canal boat users on the water, particularly in busy visitor hotspots. Encouraging awareness of these issues amongst user groups and local people is important, particularly as activities and usage levels are likely to continue to grow.

Theme 6 Accessibility and Connectivity

- 4.34 The World Heritage Site is primarily about movement a corridor of movement expressed today by the presence of the canal itself, but taking into account other transport corridors such as Telford's A5, the railway line and the use of the canal towpath for walking and cycling. Connectivity across the whole World Heritage Site is an area that could be improved upon. This includes connections between the various hubs along the World Heritage Site itself, connections with communities and locations in the Buffer Zone and connections with other visitor attractions.
- 4.35 The World Heritage Site can be accessed by public transport by means of train stations at Chirk and Ruabon (the latter involving a walk of just over a mile between the train station and the World Heritage Site at Trevor Basin); bus services run regularly between Llangollen and Wrexham and between Cefn Mawr and Wrexham. Further connectivity between hubs along the World Heritage Site corridor is provided by the Llangollen Railway, which now extends west to Corwen; the station at Berwyn provides opportunities for visiting the Chainbridge and Horseshoe Falls area. Canal boats are available for hire and for boat trips from Llangollen and from Trevor Basin. Finally, the canal towpath itself provides a link for walkers and cyclists; the towpath forms part of the Offa's Dyke National Trail in the vicinity of the Pontcysyllte Aqueduct.
- 4.36 Despite the various transport opportunities described here, they tend to operate in
 - isolation and do not provide either local people using the World Heritage Site as a recreation resource or visitors to the World Heritage Site sufficient opportunity for sustainable access and for the creation of 'joined up' routes and packages. With increasing visitor numbers, the integration of transport modes presents an opportunity to enhance sustainable access and in doing so extending the length of time visitors may stay in the area. Gateway locations present particular opportunities for providing a joined-up approach to travel, accessing



the World Heritage Site and other visitor attractions in the area – for example at the southern gateway near Chirk, there could be opportunities to link the railway line, the canal (including Chirk Aqueduct and tunnels) as well as other visitor attractions such as Chirk Castle.

- 4.37 UNESCO's Heritage Routes project presents an opportunity to enhance the itineraries, products and projects around World Heritage Sites through the development of links and information between related attractions and areas with both tangible and intangible value, for example using connectivity opportunities presented by digital platforms and mobile applications. The use of digital technology presents opportunities to create virtual access to the World Heritage Site and enhance understanding. Local examples include QR code points and associated commentaries along the canal at Chirk Bank.
- 4.38 Links between the World Heritage Site and the Buffer Zone (for example through the provision and marketing of circular routes making use of existing rights of way) provide a further opportunity to extend the length of time visitors may stay in the area (thus promoting economic benefits), and to provide opportunities to link up features and attractions of heritage value within the Buffer Zone. Examples include the

- creation of circular links with the Cefn Heritage Trail, Cefn Mawr village centre, Ty Mawr Country Park, Tan-y-Cut Woods and Froncysyllte. Connectivity improvements can also be made through the creation of wider linkages, for example partnering with user groups for the Offa's Dyke and Shropshire Way long distance paths.
- 4.39 Other opportunities exist in creating new physical access points and accompanying facilities, which may help with management of growing user numbers. Examples include the proposed Wenffrwd pocket park near Llangollen, which would present a new opportunity to access the World Heritage Site in this location, opening up a stretch of the canal to those who may not have previously experienced it; similarly, there may be opportunities in Llangollen itself to improve physical links to the World Heritage Site.

Theme 7 Realising Economic, Social and Cultural Benefits

- 4.40 The drive to secure the World Heritage Site inscription stemmed originally from an aspiration to achieve heritage-led economic regeneration and to achieve sustainable economic growth by increasing the value of the tourism sector and conserving the area's heritage assets. The closure of major employers within the immediate vicinity of the World Heritage Site (including the former Monsanto and Air Products sites near Cefn Mawr) has contributed towards social and economic decline in this area.
- 4.41 Research has identified the role that World Heritage Site status can potentially play in terms of acting as a catalyst for regeneration, through attracting funding, investment, inward migration and increased tourism. Increasing community engagement and activity as a result of World Heritage Status can further provide benefits in terms of civic pride and social capital while ensuring a higher level of awareness amongst partners of what WHS status represents¹¹. Whilst these wider benefits are acknowledged, there are concerns that economic benefits in particular have not as yet trickled down to local communities, businesses and residents. Closer working practices with a wide range of local partners is needed to deliver locally beneficial projects.
- 4.42 Tourism brings much needed revenue into the local economy and supports local employment, services and infrastructure. It is estimated that the value of tourism to the Wrexham economy in 2015 was £111.9mn, and to the Denbighshire economy in 2016 a total of £479mn (STEAM data). Tourism supports nearly 8,000 full time jobs across these two local authority areas.
- 4.43 Visitor numbers to the World Heritage Site have increased significantly since inscription in 2009; at this time visitor numbers were in the vicinity of 200,000 per annum. In 2017 there were over 300,000 visitors to Pontcysyllte
 Aqueduct and over 100,000 visitors to the Horseshoe Falls. The European Union (EU) Referendum in June 2016 and subsequent fall in value of the pound could potentially result in a growth in overseas visitors to the UK as a result of more favourable exchange rates and thereby a continued increase in visitor numbers to the World Heritage Site. Potentially limiting factors on future tourism growth in the area include the lack of quality hotel accommodation (four and five star rated).
- 4.44 The increase in visitor numbers brings its own set of issues for example the management of visitors at particular hotspot locations (parking, congestion, erosion damage, pressure on facilities, and environmental management such as litter picking). Parking in particular has been identified as an issue at Trevor Basin (where a new temporary car park may now help alleviate the situation until future permanent car parking plans are finalised) and is an ongoing problem in Llangollen.

¹¹ The Costs and Benefits of World Heritage Site Status in the UK, Pricewaterhouse Coopers LLP, December 2007

4.45 The benefits associated with activities such as boating, canoeing and paddle boarding include support for businesses, public interaction with the canal, its history, and its structures, in addition to improvements in the vibrancy and attractiveness of the World Heritage Site.

Theme 8 Environmental Stewardship

4.46 The quality of the natural environment is an important component of the World Heritage Site, and the canal has value as a wildlife corridor. Nearly 90% of the Site and its Buffer Zone fall within the Clwydian Range and Dee Valley AONB, with other environmental designations including the River Dee and Bala Lake Special Area of Conservation (SAC), and the River Dee Site of Special Scientific Interest (SSSI). Ensuring appropriate linkages are developed with other Management and Action Plans (for example the AONB Management Plan) will therefore be of importance in safeguarding and protecting the natural environment. Examples may include vegetation management schemes necessary both to protect heritage assets and views in and out of the World Heritage Site, as well as programmes for the removal of invasive species.

Theme 9 Disasters and Risk Preparedness

- 4.47 World Heritage Sites can be exposed to a range of disasters and hazards which may potentially change the physical attributes that carry the heritage value or which may pose risks to the local economy through the loss of tourism revenue. Risks facing the Pontcysyllte Aqueduct and Canal World Heritage Site include from climate change, flooding or breach of the canal, or from pollution events / major industrial incidents.
- 4.48 The Canal & River Trust has published a Water Resources Strategy which will assist with understanding the impacts of a changing climate on the inflows to canals across the UK; a Flood Risk Management Strategy is currently in preparation to explore resilience to changing climates and the way that flood risk is managed. The Canal and River Trust's regular inspection process reduces risk and provides a level of protection from disasters including breaches and flooding.
- 4.49 A consultation launched in September 2018 by the Historic Environment Group in Wales on how to manage iconic historic sites in the light of climate change, draws attention to the fact that sites are threatened by warmer temperatures, changing rainfall patterns and more frequent extreme weather events. The Sector Adaptation Plan sets out ways to adapt to changes which are already happening as well as trying to limit future effects.

Theme 10 Sharing Responsibility

- 4.50 Management arrangements for the World Heritage Site are inevitably complex, given the three local authorities through which the WHS passes (Wrexham, Denbighshire and Shropshire), the separate landowner (Canal & River Trust), and the transnational nature of the World Heritage Site.
- 4.51 The Periodic Review for the World Heritage Site undertaken in 2014 identified that there were issues associated with funding and resource availability which may present a serious constraint to the capacity of organisations to manage the site effectively. Existing budgets across the three local authorities are restricted and potential sources of external funding are limited. There has been no joint budget for management of the World Heritage Site, which makes taking a 'joined-up' approach more difficult. Actions to resolve this situation are undoubtedly complex given the number of key partners involved. Ensuring that appropriate management arrangements are in place and maintained, and that resources are allocated and prioritised, are essential to the effective implementation of the Management Plan.

- 4.52 Opportunities that exist both for closer working practices and potential allocation of resources to implement specific actions are presented by the Our Picturesque Landscape Partnership Scheme, which incorporates a number of the wider goals and objectives of the World Heritage Site Management Plan. Examples include ways to redistribute visitors along the length of the World Heritage Site and into the wider project area.
- 4.53 A final point relates to the need to include local communities in the decision-making process, in order to help with understanding and awareness-raising about the World Heritage Site and the value it presents to current and future generations.

Chapter 5 Vision and Objectives for the World Heritage Site

4.54 The Vision for the Pontcysyllte Aqueduct and Canal World Heritage Site is shown below.

To inspire people to celebrate, enjoy and value the Pontcysyllte Aqueduct and Canal World Heritage Site, safeguarding it for future generations.

Through partnership working with stakeholders and local communities we will:



- 4.55 The Vision has been developed in partnership with stakeholders and the Strategic Board. It describes how the Pontcysyllte Aqueduct and Canal World Heritage Site will continue to be celebrated for its pioneering engineering and the extraordinary contribution it has made to the lives of people and communities from the time of the Industrial Revolution. The heritage, social, economic and well-being value of the World Heritage Site, from the Horseshoe Falls to Gledrid Bridge, will be understood by local people, communities and visitors alike. Communities will be actively involved in caring for the World Heritage Site.
- 4.56 The World Heritage Site will continue to be managed by an effective partnership, working together to seek:
 - A community with a vital sense of its own culture and heritage;
 - The sustainability and preservation of the World Heritage Site itself; and
 - Enjoyment of the optimum economic, social and environmental benefits that heightened status can bring to the people of North Wales and North Shropshire.

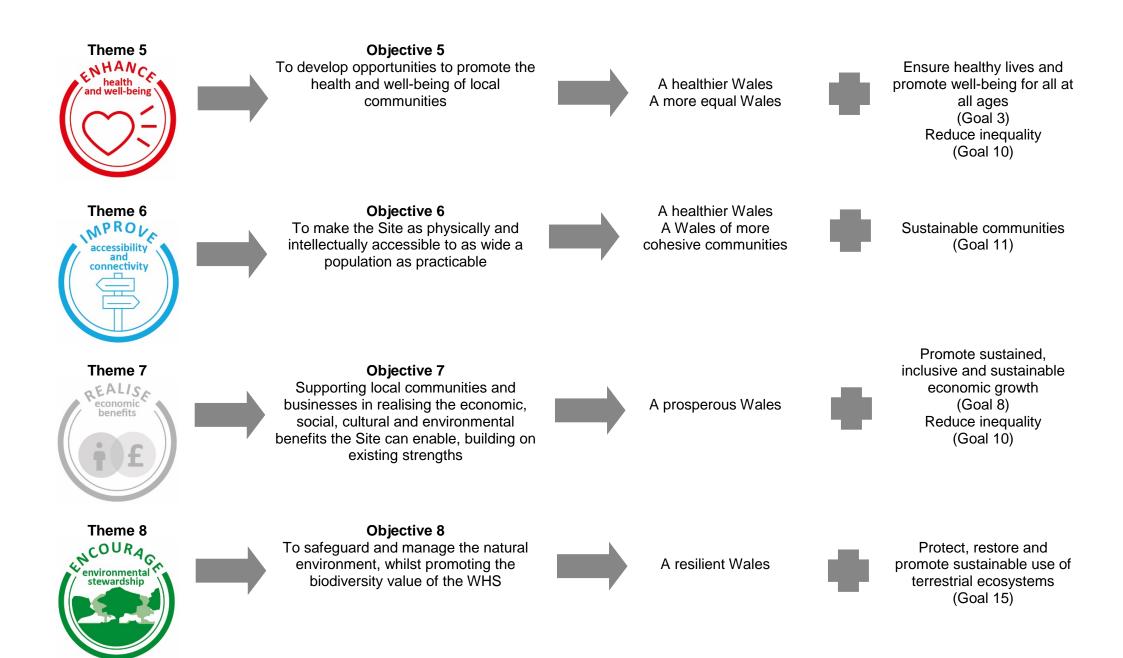
Themes, Objectives and Links

- 4.57 Set out overleaf are the ten themes which have been identified during the development of the Management Plan, and which translate into ten objectives. The diagram shows how these themes and the corresponding objectives relate both to the Wellbeing of Future Generations (Wales) Act 2015 and the UN's Sustainable Development Goals (2015).
- 4.58 The WFG Act is concerned with improving the social, economic, environmental and cultural well-being of Wales and ensuring a consistent approach is taken across public bodies; the Act is of particular relevance to the Pontcysyllte Aqueduct and Canal World Heritage Site, where there is a need for cross-border and joined-up working practices to deliver heritage, regeneration and community benefits. Whilst

the Act is not directly applicable to the English section of the World Heritage Site, the principals and goals contained within it are of relevance – for example promoting prosperity, cohesive communities, vibrant culture, health, equality and resilience. Indeed, the four high level outcomes set out in Shropshire's Corporate Plan 2018 are for a prosperous economy, a commercial council, healthy people and resilient communities.

4.59 The 2030 Agenda for Sustainable Development was adopted by all United Nations Member States in 2015. The Agenda has 17 Sustainable Development Goals at its heart which together recognise that 'ending poverty and other deprivations must go hand in hand with strategies that improve health and education, reduce inequality and spur economic growth'. A number of these goals are relevant to the international nature of the World Heritage Site designation and are highlighted in the diagram overleaf.

THEME **OBJECTIVE** WFG (WALES) ACT **UN SUSTAINABLE GOALS DEVELOPMENT GOALS** Theme 1 **Objective 1** CONSERV Protection and conservation of the assets Promote sustained. A globally responsive and maintain which make up the WHS and its inclusive and sustainable Wales A Wales of vibrant culture landscape economic growth and language (Goal 8) A prosperous Wales **Objective 2** Theme 2 Protection and conservation of those A globally responsive Sustainable communities elements that comprise the Site's OUV (Goal 11) Wales A Wales of vibrant culture while accommodating appropriate and language change A prosperous Wales **Objective 3** Theme 3 Sunderstanding V Develop and strengthen the understanding of the OUV and the role A more equal Wales Promote lifelong learning the WHS played in the development of A prosperous Wales opportunities for all civil engineering (Goal 4)) Theme 4 **Objective 4** To use the character and distinctiveness of the place and landscape to attract A prosperous Wales Sustainable communities people to live, visit and invest in A Wales of more (Goal 11) employment and leisure opportunities, cohesive communities promoting the site as a gateway to the A Wales of vibrant culture natural, built, social and cultural heritage and language of North Wales and North Shropshire





Objective 9

To identify, remove and where possible mitigate risks to the Outstanding Universal Value of the World Heritage Site



A globally responsive Wales A resilient Wales



Take urgent action to combat climate change and its impacts (Goal 13)



Objective 10

To continue the collaborative approach between those organisations with a responsibility for managing the World Heritage Site.



A resilient Wales A Wales of more cohesive communities



Partnerships (Goal 17)

Chapter 6 Action Plan

- This Chapter comprises the Action Plan, setting out for each of the key areas what actions are appropriate to meet specific objectives. The individual actions have been identified in a number of ways, including through discussion with partner organisations and from the consultation activities that have been undertaken with stakeholders and members of the community. The Action Plan has also endeavoured to draw together actions from other relevant documents in order to provide a consistent approach to management of the World Heritage Site over the next plan period. Examples here include the Clwydian Range and Dee Valley AONB Management Plan, the Our Picturesque Landscape Conservation Action Plan and the Destination Management Plans for Wrexham and Denbighshire.
- 5.2 The timescales set out in the Action Plan are defined as follows:
 - Short 1 to 2 years
 - Medium 2 to 5 years
 - Long over 5 years
- 5.3 A number of actions are also identified as being either 'ongoing' or 'annual'.
- Actions have been prioritised according to whether their importance is considered to be High, Medium or Low. Prioritisation has taken place in consultation with partner organisations and aims to assist with providing focus as to where resources should be directed. Some actions may be long-term in terms of their overall delivery but are accorded a high level of priority.
- 5.5 Responsibility for the implementation and monitoring of the Management Plan lies with the Strategic Board. This includes the submission of periodic reports to UNESCO (six yearly, in accordance with Article 29 of the World Heritage Convention). An annual report will be prepared setting out progress against each of the actions identified in the Action Plan categorised as Not Started, Started (with an indication of the percentage complete) and Complete. In addition, a number of key indicators have been identified which will be used to monitor the progress of the Management Plan in achieving its overall objectives and these are described in the Action Plan overleaf.



OBJECTIVE 1

Protection and conservation of the assets which make up the WHS and its landscape

Action	Lead and Partner Organisation/s	Timescale	Priority	Baseline	Monitoring Indicators and Arrangements	Supporting Plans and Programmes	Links with Well-being of Future Generations Act Goals / UN Sustainable Development Goals
1.1 Update the Conservation Management Plan produced for the World Heritage Site in 2009	Planning, Landscape and Conservation Delivery Group Canal & River Trust WCBC Denbighshire CC Shropshire Council Cadw / Historic England Clwydian Range and Dee Valley AONB	Short	High	2009 Conservation Management Plan	Updated Conservation Management Plan produced	Our Picturesque Landscape Conservation Action Plan Gazetteer and State of Conservation Report	A globally responsive Wales A Wales of vibrant culture and language A prosperous Wales UN Goal 8 – Promote sustained, inclusive and sustainable economic growth
1.2 Routine maintenance undertaken by Canal & River Trust in accordance with programme of works, to defined standards based on use and value.	Canal & River Trust All partner organisations	Ongoing	High	Baseline position informed by 2019 data	Condition to be monitored twice per year through PPM (Preventative Planning Maintenance) programme	Canal & River Trust Maintenance Programmes	A globally responsive Wales A Wales of vibrant culture and language A prosperous Wales

							UN Goal 8 – Promote sustained, inclusive and sustainable economic growth
1.3 Review the Gazetteer every 5 years and identify maintenance works and set priorities for repair for the following 5 years.	Planning, Landscape and Conservation Delivery Group All partner organisations	Next review to be undertaken in 2022	High	Baseline position comprises the 2017 review.	The number of assets graded as Poor decreases	Conservation Management Plan	A globally responsive Wales A Wales of vibrant culture and language A prosperous Wales UN Goal 8 – Promote sustained, inclusive and sustainable economic growth
1.4 Canal & River Trust to apply for abstraction license to ensure continuation of protected rights to water from the River Dee system.	Canal & River Trust Natural Resources Wales	Annual	High	Current abstraction license in place.	Applications for abstraction licence for Llangollen Canal water supply will be submitted to Natural Resources Wales well ahead of the 31st December 2019 deadline, as part of the wider 'New Authorisations' activity by the Trusts Water Management team	NRW Strategies	A globally responsive Wales A Wales of vibrant culture and language A prosperous Wales A resilient Wales
1.5 Leakage reduction works where required to be included in Canal & River Trust maintenance programmes.	Canal & River Trust	Ongoing	Medium	Baseline position informed by 2019 data	Inclusion in maintenance programme. Monitored twice per year through PPM (Preventative Planning Maintenance)	Canal & River Trust Maintenance Programmes	A globally responsive Wales A Wales of vibrant culture and language A prosperous Wales A resilient Wales



OBJECTIVE 2

Protection and conservation of those elements that comprise the Site's OUV while accommodating appropriate change

Action	Lead and Partner Organisation/s	Timescale	Priority	Baseline	Monitoring Indicators and Arrangements	Supporting Plans and Programmes	Links with Well-being of Future Generations Act Goals / UN Sustainable Development Goals
2.1 Ensure that new Local Development Plans adopted during the Management Plan period include appropriate policies for the protection of the World Heritage Site, Buffer Zone and the wider setting.	Planning, Landscape and Conservation Delivery Group All local authorities	Ongoing	High	Status of LDPs at publication of Management Plan	LDPs include appropriate policies for the protection of the World Heritage Site, Buffer Zone and wider setting	Local Development Plans	A Wales of vibrant culture and language A prosperous Wales UN Goal 17 — Partnerships
2.2 Update the Landscape and Visual Assessment Baseline document	Planning, Landscape and Conservation Delivery Group All local authorities Clwydian Range and Dee Valley AONB	Short	High	Current Landscape and Visual Assessment Baseline produced 2009	Revised Landscape and Visual Assessment Baseline	Clwydian Range and Dee Valley AONB Supplementary Planning Document Our Picturesque Landscape Conservation Action Plan	A Wales of vibrant culture and language A prosperous Wales UN Goal 11 – Sustainable communities
2.3 Update Supplementary Planning	Planning, Landscape,	Short	High	Current SPD (published 2012)	Updated SPD produced	Clwydian Range and Dee Valley	A Wales of vibrant culture and language

Guidance to reflect new Management Plan and changing circumstances.	Conservation Delivery Group All local planning authorities					AONB Supplementary Planning Document	A prosperous Wales UN Goal 17 – Partnerships
2.4 Regular monitoring to check compliance with consents, both through review of planning decisions review exercise and gazetteer update surveys. Review locations where enforcement action is desirable within the WHS and prioritise actions.	Planning, Landscape and Conservation Delivery Group All local planning authorities Cadw Historic England	Ongoing	High	Review of Planning Decisions 2016 State of Conservation Report 2017	Number of identified enforcement issues Number of identified enforcement issues addressed	N/A	A globally responsive Wales A prosperous Wales UN Goal 17 — Partnerships
2.5 Undertake a review of planning decisions exercise on a 5 yearly basis.	Planning, Landscape and Conservation Delivery Group All local planning authorities Cadw Historic England	2021	Medium	N/A	Review undertaken on 5 yearly basis	Local Development Plans	A prosperous Wales UN Goal 17 – Partnerships
2.6 Undertake training for decision makers including planning officers and local planning committee members.	Planning, Landscape and Conservation Delivery Group All local authorities Clwydian Range and Dee Valley AONB Landscape and Conservation Delivery Group	Every 3 years	High	N/A	Number of training sessions held	Local Development Plans	A Wales of vibrant culture and language A prosperous Wales UN Goal 17 – Partnerships

2.7 Formalise process for consultation and feedback on planning applications from the World Heritage Site Planning and Conservation Delivery Group.	Planning, Landscape and Conservation Delivery Group Wrexham CBC Denbighshire CC Shropshire Council Cadw Historic England	Short	Medium	N/A	Process for consultation and feedback formalised	N/A	A globally responsive Wales A prosperous Wales UN Goal 17 – Partnerships
2.8 Develop World Heritage Site-wide Design Guidance taking into account the use of boundary treatments, palette of acceptable and non-acceptable materials, colours. Design Guide to be used to strengthen identity and sense of place.	Planning, Landscape & Conservation Delivery Group Wrexham CBC Denbighshire CC Shropshire Council Clwydian Range and Dee Valley AONB	Medium	High	World Heritage Site Supplementary Planning Document	World Heritage Site- wide Design Guidance developed	Local Development Plans / Supplementary Planning Guidance	A Wales of vibrant culture and language A prosperous Wales A Wales of more cohesive communities UN Goal 11 — Sustainable Communities
2.9 Request greater detail from applicants on materials, landscaping, lighting and services at pre-determination stage.	All local planning authorities Planning, Landscape and Conservation Delivery Group	Ongoing	High	World Heritage Site Supplementary Planning Document	Number of requests for detailed information at pre-determination stage made	N/A	A Wales of vibrant culture and language A prosperous Wales
2.10 Promote best practice through the dissemination of exemplar Design and Access Statements and Heritage Impact Assessments.	All local planning authorities Planning, Landscape and Conservation Delivery Group	Ongoing	High	World Heritage Site Supplementary Planning Document	Best practice DAS and HIAs identified	N/A	A Wales of vibrant culture and language A prosperous Wales

2.11 Identify problem areas of garden encroachment through Gazeteer update surveys and determine necessary enforcement action in consultation with local planning authority, landowner, Cadw/Historic England	Planning, Landscape and Conservation Delivery Group Wrexham CBC Denbighshire CC Shropshire Council Canal & River Trust Cadw Historic England	Short to medium	High	2017 Gazeteer update	Number of areas of garden encroachment identified Number of enforcement actions undertaken Number of landowner engagement opportunities undertaken	N/A	A globally responsive Wales A Wales of vibrant culture and language A prosperous Wales UN Goal 17 — Partnerships
2.12 Work towards the eventual removal / relocation of the Dwr Cymru sewage works beneath the Pontcysyllte Aqueduct	Clwydian Range and Dee Valley AONB Natural Resources Wales Dwr Cymru	Long	High	N/A	Action plan identified for the removal of Dwr Cymru sewage works	N/A	A prosperous Wales UN Goal 17 – Partnerships



OBJECTIVE 3

Develop and strengthen the understanding of the OUV and the role the WHS played in the development of civil engineering

Action	Lead and Partner Organisation/s	Timescale	Priority	Baseline	Monitoring Indicators and Arrangements	Supporting Plans and Programmes	Links with Well-being of Future Generations Act Goals / UN Sustainable Development Goals
3.1 Establish a Community Forum for the World Heritage Site and hold one themed Forum event each year.	WHS Co-ordinator Town, Community and Parish Councils Existing community groups and communities of interest	Short	High	N/A	One Community Forum event held annually Number and geographical representation of attendees Number of local business representatives attending	Our Picturesque Landscape Project 3 Big Local Project	A prosperous Wales A Wales of more cohesive communities A more equal Wales UN Goal 11 — Sustainable Communities
3.2 Publish a minimum of two articles per year in local newsletters about the World Heritage Site and ongoing activities / projects	WHS Co-ordinator Community Delivery Group	Annual	High	N/A	Number of articles published annually in local newsletters	N/A	A prosperous Wales A Wales of more cohesive communities A more equal Wales

							UN Goal 11 – Sustainable Communities
3.3 Develop international links with organisations such as the International Committee for Conservation of the Industrial Heritage (TICCIH) and the European Route of Industrial Heritage ERIH).	WHS Co-ordinator Education Delivery Group Cadw Historic England CPAT	Medium	Low	N/A	Links developed with international agencies	N/A	A globally responsive Wales A prosperous Wales UN Goal 17 - Partnerships
3.4 Secure funding to explore the 'social archaeology' of the World Heritage Site and communities within the Buffer Zone.	WHS Co-ordinator Education Delivery Group Local community groups Clwydian Range and Dee Valley AONB OPL Partnership	Short to medium	High	N/A	Number of funding applications submitted / funding opportunities explored Number of successful funding bids	Our Picturesque Landscape Project	A prosperous Wales A Wales of more cohesive communities A Wales of vibrant culture and language UN Goal 11 – Sustainable Communities
3.5 Support opportunities to carry out further archaeological assessment within the World Heritage Site and Buffer Zone, through planning process and other projects	Wrexham CBC Denbighshire CC Shropshire Council Clwydian Range and Dee Valley AONB Education Delivery Group CPAT Cadw	Short to medium	Low	N/A	Number of opportunities to undertake archaeological assessment	Trevor Basin Area Masterplan	A prosperous Wales A Wales of vibrant culture and language UN Goal 17 – Partnerships

	Historic England						
3.6 Use the World Heritage UK Events as an opportunity to engage with a wider audience and exchange information about best practice.	WHS Strategic Board World Heritage UK Cadw Historic England	Short	High	N/A	Number and representation of attendees at World Heritage UK event 2019	N/A	A prosperous Wales A Wales of vibrant culture and language UN Goal 17 – Partnerships
3.7 Implement Youth Ambassador Scheme.	WHS Co-ordinator Education Delivery Group Canal & River Trust Denbighshire CC Shropshire Council WCBC	Short	High	N/A	Number of Youth Ambassador posts created	Clwydian Range and Dee Valley AONB Partnership Our Picturesque Landscape Project	A prosperous Wales A Wales of more cohesive communities A more equal Wales UN Goal 4 – Quality Education UN Goal 11 – Sustainable Communities
3.8 Work with local schools through the Canal & River Trust Explorers Programme. Promote the work that is undertaken as part of this programme to a wider audience.	Canal & River Trust Education Delivery Group Wrexham CBC Denbighshire CC Shropshire Council Clwydian Range and Dee Valley AONB	Ongoing / Short	High	982 pupils engaged in 2017/18	Number of pupils engaged in Explorer's programme Number of schools engaged in Explorer's programme No of opportunities used to promote learning	Canal & River Trust Explorers Programme	A prosperous Wales A Wales of more cohesive communities A more equal Wales UN Goal 4 – Quality Education
3.9 Identify opportunities to undertake and publish historical research, for	Education Delivery Group	Medium	Low	N/A	Links developed with local history groups	N/A	A prosperous Wales

example through links with local history groups	Local history groups			A Wales of more cohesive communities
and / or establishment of an informal group comprising active local				UN Goal 4 – Quality Education
historians				UN Goal 11 – Sustainable Communities



OBJECTIVE 4

To use the character and distinctiveness of the place and its landscape to attract people to live, visit and invest in employment and leisure opportunities, promoting the site as a gateway to the natural, built, social and cultural heritage of North Wales and North Shropshire

Action	Lead and Partner Organisation/s	Timescale	Priority	Baseline	Monitoring Indicators and Arrangements	Supporting Plans and Programmes	Links with Well-being of Future Generations Act Goals / UN Sustainable Development Goals
4.1 Develop the 'eleven miles of World Heritage' theme as presented in the WHS Style Guide through interpretation and promotional material.	Visitor Management & Economic Regeneration Delivery Group Wrexham CBC Denbighshire CC Shropshire Council Canal & River Trust Clwydian Range and Dee Valley AONB	Medium	High	N/A	Consistent interpretation and signage prepared along the WHS	Destination Management Plans / Clwydian Range and Dee Valley AONB Management Plan WHS Interpretation Strategy Project Compass	A Wales of vibrant culture and language A prosperous Wales UN Goal 11 — Sustainable Communities

4.2 Implement World Heritage Site-wide interpretation and signage strategy to ensure consistency across the site. Include interpretation and signage within key Buffer Zone settlements such as Cefn Mawr, Chirk and Llangollen.	Local community groups Visitor Management & Economic Regeneration Delivery Group Denbighshire CC Shropshire Council Canal & River Trust Clwydian Range and Dee Valley AONB	Medium	High	WHS Interpretation and Signage Strategy	Consistent interpretation and signage prepared along the WHS	Destination Management Plans / Clwydian Range and Dee Valley AONB Management Plan WHS Interpretation Strategy Project Compass	A Wales of vibrant culture and language A prosperous Wales UN Goal 11 — Sustainable Communities
4.3 Develop off-site marketing and pre-visit information through existing and potential new routes (e.g. information at airports).	Visitor Management & Economic Regeneration Delivery Group Tourism Teams Destination Management Partnerships Local authorities Clwydian Range and Dee Valley AONB	Medium	Medium	N/A	Number of off-site marketing opportunities developed Number of pre-visit marketing opportunities developed (e.g. social media / website opportunities)	Visit Wales / Visit England Strategy documents	A Wales of vibrant culture and language A prosperous Wales UN Goal 11 – Sustainable Communities
4.4 Enhance wayfinding and sense of identity within the World Heritage Site, for example through fingerpost signs at regular intervals.	Visitor Management & Economic Regeneration Delivery Group Canal & River Trust Wrexham CBC Denbighshire CC	Medium	Medium	WHS Interpretation and Signage Strategy	Consistent interpretation and signage prepared along the WHS	Destination Management Plans Clwydian Range and Dee Valley AONB Management Plan	A Wales of vibrant culture and language A prosperous Wales UN Goal 11 – Sustainable Communities

	Shropshire Council Clwydian Range and Dee Valley AONB						
4.5 Improve the interface between Llangollen Wharf and Llangollen town through involvement with relevant local projects.	Visitor Management & Economic Regeneration Delivery Group Denbighshire CC Canal & River Trust Llangollen Town Council Clwydian Range and Dee Valley AONB	Medium to long	High	Llangollen 2020 Feasibility Study	Number of local regeneration projects supported (e.g. Llangollen Four Great Highways work)	Llangollen 2020 Our Picturesque Landscape Project	A Wales of vibrant culture and language A prosperous Wales UN Goal 8 – Promote sustained, inclusive and sustainable economic growth UN Goal 11 – Sustainable Communities
4.6 Rebranding and promotion of Llangollen Wharf and Warehouse area in line with the World Heritage Site Interpretation Strategy and Project Compass.	Canal & River Trust Denbighshire CC Clwydian Range and Dee Valley AONB	Medium	Medium	N/A	Implementation of rebranding of Llangollen Wharf and Warehouse area	Destination Management Plans Clwydian Range and Dee Valley AONB Management Plan WHS Interpretation Strategy Project Compass	A Wales of vibrant culture and language A prosperous Wales UN Goal 11 – Sustainable Communities
4.7 Develop proposals to announce the 'gateway' to the World Heritage Site at Gledrid Bridge	Visitor Management & Economic Regeneration Delivery Group Shropshire Council	Medium	High	N/A	Gateway project developed at Gledrid Bridge by 2024	N/A	A Wales of vibrant culture and language A prosperous Wales UN Goal 8 – Promote sustained, inclusive and

							sustainable economic growth UN Goal 11 – Sustainable Communities
4.8 Develop interpretation at Black Park Collieries Railway Dock.	Visitor Management & Economic Regeneration Delivery Group WCBC Cadw	Medium	Low	N/A	Interpretation developed at Black Park Collieries Railway Dock	N/A	A prosperous Wales A Wales of vibrant culture and language UN Goal 11 – Sustainable Communities
4.9 Develop proposals at Horseshoe Falls as part of the Our Picturesque Landscape Project.	Clwydian Range & Dee Valley AONB Denbighshire CC Cadw Canal & River Trust	Short to medium	Medium	N/A	Proposals at Horseshoe Falls developed Proposals implemented	Our Picturesque Landscape Clwydian Range and Dee Valley AONB Management Plan	A prosperous Wales A Wales of vibrant culture and language UN Goal 8 – Promote sustained, inclusive and sustainable economic growth UN Goal 11 – Sustainable Communities



OBJECTIVE 5

To develop opportunities to promote the health and well-being of local communities

Action	Lead and Partner Organisation/s	Timescale	Priority	Baseline	Monitoring Indicators and Arrangements	Supporting Plans and Programmes	Links with Well-being of Future Generations Act Goals / UN Sustainable Development Goals
5.1 Develop links with healthcare providers to promote using the Llangollen Canal for better health and wellbeing.	Canal & River Trust Wrexham CBC Denbighshire CC Shropshire Council Clwydian Range and Dee Valley AONB	Ongoing / Short	Medium	N/A	Annual recording of: Number of health care providers engaged Number of health and well-being campaigns	Local Authority / CRT Health and Well-being Strategies	A Wales of more cohesive communities A healthier Wales UN Goal 3 – Good health and well-being
5.2 Develop presentation material / link with relevant partners to promote the well-being and accessibility benefits of the WHS for users with all physical abilities.	All local authorities Canal & River Trust Clwydian Range and Dee Valley AONB	Medium to long	Medium	N/A	Number of walking and cycling projects planned with local partners e.g. Healthy Walking Groups	Local Authority / CRT Health and Well-being Strategies	A Wales of more cohesive communities A healthier Wales UN Goal 3 – Good health and well-being



OBJECTIVE 6

To make the Site as physically and intellectually accessible to as wide a population as practicable

Action	Lead and Partner Organisation/s	Timescale	Priority	Baseline	Monitoring Indicators and Arrangements	Supporting Plans and Programmes	Links with Well-being of Future Generations Act Goals / UN Sustainable Development Goals
6.1 Support local walking festivals to ensure the WHS is incorporated and promoted, including circular walks to places of interest, and using trained guides from within the local community.	Visitor Management & Economic Regeneration Delivery Group Community Delivery Group Canal & River Trust Wrexham CBC Denbighshire CC Shropshire Council Clwydian Range and Dee Valley AONB Local walking groups	Medium	High	N/A	Number of links developed with co- ordinators of local walking festivals	Clwydian Range and Dee Valley AONB Management Plan Our Picturesque Landscape Project	A healthier Wales A Wales of more cohesive communities UN Goal 3 – Good health and well-being UN Goal 10 – Reduced inequalities UN Goal 11 – Sustainable communities
6.2 Create and promote circular trails, e.g. possible routes created through the Our	Clwydian Range & Dee Valley AONB	Medium	High	N/A	Monitor user numbers of new trails on an annual basis	Our Picturesque Landscape Project	A healthier Wales A Wales of more cohesive communities

Picturesque Landscape project.	Community Delivery Group Canal & River Trust Wrexham CBC Denbighshire CC Shropshire Council						UN Goal 3 – Good health and well-being UN Goal 10 – Reduced inequalities UN Goal 11 – Sustainable communities
6.3 Develop a project to explore sustainable transport links to and along the World Heritage Site, linking visitor destinations and in tandem with the AONB. Consider a pilot project in the first instance during high season.	Visitor Management & Economic Regeneration Delivery Group Wrexham CBC Denbighshire CC Shropshire Council Clwydian Range and Dee Valley AONB	Medium to long	High	N/A	Ensure mode of arrival question is incorporated into annual visitor surveys	North Wales Local Transport Plan / integrated transport initiatives	A healthier Wales A Wales of more cohesive communities A prosperous Wales UN Goal 3 – Good health and well-being UN Goal 10 – Reduced inequalities UN Goal 11 – Sustainable communities
6.4 Develop opportunities for joint ticketing / joint promotions with local businesses such as the Llangollen Railway / horse-drawn boats at Llangollen	Visitor Management & Economic Regeneration Delivery Group Canal & River Trust Wrexham CBC Denbighshire CC Clwydian Range and Dee Valley AONB Llangollen Railway	Medium	Medium	N/A	Number of potential opportunities for joint promotions identified	N/A	A healthier Wales A Wales of more cohesive communities A prosperous Wales UN Goal 3 – Good health and well-being UN Goal 10 – Reduced inequalities

	Llangollen Wharf						UN Goal 11 – Sustainable communities
6.5 Monitor and address impacts associated with increased demand for paddlesport activity	Visitor Management & Economic Regeneration Delivery Group Canal & River Trust Wrexham CBC Denbighshire CC Clwydian Range and Dee Valley AONB Welsh Dee Trust	Ongoing	High	5,000 annual paddlesport visits to Llangollen Canal. Develop baseline to understand locations of paddlesport activity	Review demand annually with watersport operators	Our Pictures Landscape Project	A resilient Wales A prosperous Wales UN Goal 3 – Good health and well-being UN Goal 11 – Sustainable Communities
6.6 Explore potential of undertaking a joint project with the Chainbridge Hotel to enhance the towpath in this area and access across the Chainbridge.	Denbighshire CC Clwydian Range and Dee Valley AONB Canal and River Trust Llangollen Town Council	Medium	Low	N/A	Length of canal towpath enhanced / improved	N/A	A prosperous Wales UN Goal 11 – Sustainable Communities



OBJECTIVE 7

Supporting local communities and businesses in realising the economic, social, cultural and environmental benefits the Site can enable, building on existing strengths

Action	Lead and Partner Organisation/s	Timescale	Priority	Baseline	Monitoring Indicators and Arrangements	Supporting Plans and Programmes	Links with Well-being of Future Generations Act Goals / UN Sustainable Development Goals
7.1 Liaison with local businesses within or immediately adjacent to the World Heritage Site to improve understanding of management structure, points of contact, Outstanding Universal Value.	Visitor Management & Economic Regeneration Delivery Group Community Delivery Group Local businesses Clwydian Range and Dee Valley AONB	Ongoing	High	N/A	Number of local businesses represented at annual Community Forum	N/A	A Wales of vibrant culture and language UN Goal 17 – Partnerships
7.2 Adopt a business signage toolkit (akin to that used at the Edinburgh World Heritage Site).	Visitor Management & Economic Regeneration Delivery Group Local businesses	Short	Medium	N/A	Explore likely costs and benefits Number of businesses using business toolkit	N/A	A Wales of vibrant culture and language A prosperous Wales UN Goal 8 – Promote sustained, inclusive and sustainable economic growth

							UN Goal 11 – Sustainable Communities
7.3 Develop links with relevant partners for the WHS from the Wales Way initiative.	Visitor Management & Economic Regeneration Delivery Group Tourism Teams Destination Management Partnerships Wrexham CBC, Denbighshire CC Welsh Government	Short to medium	High	N/A	Number of discussions held with Wales Way Initiative staff	Wales Way Initiative	A Wales of vibrant culture and language A prosperous Wales UN Goal 17 – Partnerships
7.4 Support AONB Badge Guide programme to educate visitors about the WHS.	Clwydian Range & Dee Valley AONB Wrexham CBC Denbighshire CC	Short	Low	Number of AONB Guide qualifications 2019	Number of new AONB Guide qualifications delivered annually	N/A	A Wales of vibrant culture and language A prosperous Wales UN Goal 11 – Sustainable Communities
7.5 Attain Green Flag Heritage Site accreditation	WHS Co-ordinator Community Delivery Group Wrexham CBC Denbighshire CC Shropshire Council	Medium	High	N/A	Green Flag Heritage Site accreditation attained	N/A	A Wales of vibrant culture and language A prosperous Wales UN Goal 8 – Promote sustained, inclusive and sustainable economic growth

	Canal & River Trust						UN Goal 11 – Sustainable Communities
7.6 Explore funding and delivery mechanisms for the Masterplan for Trevor Basin and surrounding area	Canal & River Trust Wrexham CBC Solutia UK Limited Welsh Government	Long	High	N/A	Develop the economic case for funding those parts of the emerging plan that need government funding /support May need external assistance to provide supportive evidence of potential outputs	Trevor Basin Area Masterplan	A Wales of vibrant culture and language A prosperous Wales UN Goal 8 – Promote sustained, inclusive and sustainable economic growth UN Goal 11 – Sustainable Communities
7.7 Develop new canoe / kayak access points and facilities along the canal (for example use of boathouse at Bryn Howell as a canoe store) in discussion with outdoor activity providers.	Canal & River Trust Outdoor activity providers Clwydian Range and Dee Valley AONB	Medium	Medium	N/A	Number of new canoe / kayak access points identified Number of new canoe / kayak access points developed	N/A	A healthier Wales A prosperous Wales UN Goal 3 – Good health and well-being
7.8 Develop new digital marketing,	Visitor Management & Economic Regeneration Delivery Group All local authorities Canal & River Trust	Short to medium	Medium	N/A	Number of new digital marketing opportunities identified	N/A	A prosperous Wales UN Goal 8 – Promote sustained, inclusive and sustainable economic growth UN Goal 17 – Partnerships

7.9 Monitor visitor numbers and the effect they are having on different locations within the WHS (for example environmental, social and economic effects)	Visitor Management & Economic Regeneration Delivery Group Canal & River Trust Wrexham CBC Denbighshire CC Shropshire Council Clwydian Range and Dee Valley AONB	Ongoing	High	Link with AONB and Canal & River Trust annual visitor data gathering – 2018 / 19 baseline	Review of annual visitor data at locations along the WHS Monitor the social impacts associated with increasing visitor numbers using baseline work established by New Economics Foundation (NEF) Collection and analysis of STEAM data for the WHS Dwell time in the WHS	N/A	A prosperous Wales UN Goal 8 – Promote sustained, inclusive and sustainable economic growth UN Goal 11 – Sustainable Communities
7.10 Monitor funding secured for the WHS (whether to assist with maintenance, improvements or specific projects)	WHS Strategic Board Canal & River Trust Wrexham CBC Denbighshire CC Shropshire Council Clwydian Range and Dee Valley AONB	Ongoing	High	N/A	Financial investment secured	Link to Periodic Review	A prosperous Wales UN Goal 8 – Promote sustained, inclusive and sustainable economic growth
7.11 Monitor funding private investment within local communities (monitored using the number of new tourism businesses created within the WHS and Buffer zone)	WHS Strategic Board Canal & River Trust Wrexham CBC Denbighshire CC Shropshire Council Clwydian Range and Dee Valley AONB	Ongoing	High	N/A	Financial investment secured Number of new businesses created by sector	Link to Periodic Review	A prosperous Wales UN Goal 8 – Promote sustained, inclusive and sustainable economic growth



OBJECTIVE 8

To safeguard and manage the natural environment, whilst promoting the biodiversity value of the World Heritage Site

Action	Lead and Partner Organisation/s	Timescale	Priority	Baseline	Monitoring Indicators and Arrangements	Supporting Plans and Programmes	Links with Well-being of Future Generations Act Goals / UN Sustainable Development Goals
8.1 Carry out vegetation management within the World Heritage Site to enhance views and setting in accordance with relevant maintenance programmes, strategies and projects.	Clwydian Range and Dee Valley AONB Canal & River Trust Community Delivery Group Wrexham CBC Denbighshire CC Shropshire Council	Ongoing	Medium	2019 NVES contract reporting	Routine vegetation management will be recorded through NVES contract reporting Non-routine management should be captured on a case by case basis and recorded through action plan monitoring	Canal & River Trust Maintenance Programmes Our Picturesque Landscape Project	A resilient Wales UN Goal 15 – Life on Land
8.2 Manage invasive species within the World Heritage Site and the Buffer Zone.	Canal & River Trust / local authorities Community Delivery Group	Ongoing	High	Existing baseline data on where invasive species currently are and when they are	Record number of notifications raised in SAP and number actioned.	Canal & River Trust Maintenance Programmes Our Picturesque Landscape Project	A resilient Wales UN Goal 15 – Life on Land

	Wrexham CBC Denbighshire CC Shropshire Council Clwydian Range and Dee Valley AONB NRW Adjacent landowners			treated via the SAP notification process			
8.3 Improve viewpoints at Llantysilio, Chirk and from the River Dee and the A5 at Pontcysyllte,	Clwydian Range and Dee Valley AONB Wrexham CBC	Ongoing	Medium		Number of historic views opened up and /or reinstated	Clwydian Range and Dee Valley AONB Management Plan Our Picturesque Landscape Project	A prosperous Wales UN Goal 11 – Sustainable Communities
8.4 Undertake vegetation clearance and interpretation at a number of sites as identified in the review of the Gazetteer.	Visitor Management & Economic Regeneration Delivery Group Community Delivery Group Clwydian Range and Dee Valley AONB Wrexham CBC Denbighshire CC Shropshire Council Canal & River Trust	Medium to long	Medium	Gazeteer review 2017	Number of sites where vegetation clearance has been undertaken Number of sites where interpretation has been improved	Local Authority Maintenance Programmes / Interpretation Plans Our Picturesque Landscape Project	A Wales of vibrant culture and language A prosperous Wales UN Goal 11 – Sustainable Communities
8.5 Work with local groups and organisations (for example wildlife trusts) to promote understanding about the	WHS Co-ordinator / Canal & River Trust Community Delivery Group	Short to medium	High	N/A	Record numbers of engagement events (walks, talks etc.) along with numbers attending.	Biodiversity Action Plans	A resilient Wales UN Goal 17 – Partnerships

biodiversity value of the	North Wales Wildlife			
WHS	Trust			
	Clwydian Range and Dee Valley AONB			
	NRW			



OBJECTIVE 9

To identify, remove and where possible mitigate risks to the Outstanding Universal Value of the World Heritage Site

Action	Lead and Partner Organisation/s	Timescale	Priority	Baseline	Monitoring Indicators and Arrangements	Supporting Plans and Programmes	Links with Well-being of Future Generations Act Goals / UN Sustainable Development Goals
9.1 Monitor and update risk register for the WHS which sets out risks, mitigation, potential actions and management, ensuring that proposed actions take full account of the OUV.	WHS Strategic Board	Short	High	2019 WHS Risk Register	Annual review and update	N/A	A globally responsive Wales A resilient Wales UN Goal 13 – Climate Action UN Goal 17 – Partnerships

9.2 Manage foreseeable visitor incidents through health and safety programmes and risk management strategies.	Canal & River Trust Wrexham CBC Denbighshire CC Shropshire C	Ongoing	High	N/A	Implementation of health & safety programmes and risk management strategies Training & support for site staff	N/A	A healthier Wales UN Goal 17 – Partnerships
9.3 Natural Resources Wales to review incidences of flooding in the Rivers Dee and Ceiriog as well as monitoring and recording of flood events into and out of the canal.	Natural Resources Wales Canal & River Trust	Ongoing	Medium	N/A	Work with NRW to formulate a review process	NRW Catchment Management	A globally responsive Wales A Wales of vibrant culture and language A prosperous Wales UN Goal 13 – Climate Action
9.4 Review implications of research into the potential impact of climate change in Wales. Regular interaction with relevant agencies to understand potential implications for the WHS.	WHS Strategic Board All local authorities Cadw / Historic England Canal & River Trust	Ongoing	High	N/A	Review of relevant information from UNESCO, World Heritage UK as relevant	Welsh Government Climate Change Strategy	A globally responsive Wales A resilient Wales UN Goal 13 – Climate action UN Goal 17 – Partnerships



OBJECTIVE 10

To continue the collaborative approach between those organisations with a responsibility for managing the World Heritage Site

Action	Lead and Partner Organisation/s	Timescale	Priority	Baseline	Monitoring Indicators and Arrangements	Supporting Plans and Programmes	Links with Well-being of Future Generations Act Goals / UN Sustainable Development Goals
10.1 Allocate specific annual WHS core budget within each managing organisation, with potential for pooling across organisations and establishment of a core budget.	WHS Strategic Board	Short	High	N/A	Annual WHS core budget established within each managing organisation Annual review of Action Plan by Strategic Board – number of actions completed, percentage progressed of uncompleted actions Findings of next UNESCO periodic Review 2020	Local Authority Core Budgets & Programmes	A globally responsive Wales UN Goal 17 – Partnerships
10.2 Develop a Statement of Intent for the approach to	WHS Strategic Board	Short	High	N/A	Joint Statement of Intent developed	Local Authority Core Budgets and Programmes	A globally responsive Wales

management of the WHS across managing organisations.							UN Goal 17 – Partnerships
10.3 Develop Joint Statement of Intent between the WHS Strategic Board and the Clwydian Range and Dee Valley AONB.	Clwydian Range and Dee Valley AONB WHS Strategic Board	Short	High	N/A	Joint Statement of Intent developed	Clwydian Range and Dee Valley AONB Budget	A resilient Wales UN Goal 17 – Partnerships
10.4 Undertake annual engagement activity between the Clwydian Range and Dee Valley AONB Committee and the WHS Strategic Board.	Clwydian Range and Dee Valley AONB WHS Strategic Board	Annual	High	N/A	Annual engagement activity undertaken (e.g. site visit, meeting)	Clwydian Range and Dee Valley AONB Budget Local Authority Core Budgets & Programmes	A resilient Wales UN Goal 17 - Partnerships
10.5 The Management Plan Review process to begin in Year 4.	WHS Strategic Board	Year 4	High	2019 Management Plan	N/A	Local Authority Core Budgets and Programmes	A globally responsive Wales UN Goal 17 – Partnerships
10.6 Explore links with the Our Picturesque Landscape project – (for example to share staff resources or to implement projects).	WHS Co-ordinator Our Picturesque Landscape Partnership Clwydian Range and Dee Valley AONB	Short	High	N/A	Number of staff resources shared Number of projects implemented jointly	Our Picturesque Landscape Project	A prosperous Wales A Wales of vibrant culture and language UN Goal 17 – Partnerships
10.7 Provide strategic input to the Trevor Basin Area Masterplan process and work with partner organisations to deliver proposals.	Canal & River Trust Wrexham CBC Solutia	Short to medium	High	N/A	Develop the economic case for funding those parts of the emerging plan that need government funding /support	Trevor Basin Area Masterplan	A prosperous Wales A Wales of vibrant culture and language UN Goal 17 – Partnerships

		May need external	
		assistance to	
		provide supportive	
		evidence of	
		potential outputs	
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APPENDIX A

Reference List and Technical Information Relating to the World Heritage Site and its Features

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APPENDIX B

Detailed Policy Context

Wales

- 1. National policy is set out in Welsh Government's Planning Policy Wales (Edition 10, draft February 2018). Chapter 5 'Distinctive and Natural Places' includes the statement that one of Welsh Government's specific objectives for the historic environment is to 'protect the Outstanding Universal Value of the World Heritage Sites in Wales' (para. 5.80) and that 'the impacts of proposed developments on a World Heritage Site and its setting and, where it exists, the World Heritage Site buffer zone, is a material consideration in the determination of any planning application' (para. 5.96).
- 2. Technical Advice Note 24 (The Historic Environment) published in May 2017 sets out general guidance on the management of the historic environment, heritage impact and setting of historic assets. Paragraph 1.26 states that 'it is for the applicant to provide the local planning authority with sufficient information to allow the assessment of their proposals in respect of scheduled monuments, listed buildings, conservation areas, registered historic parks and gardens, World Heritage Sites, or other sites of national importance and their settings. These principles, however, are equally applicable to all historic assets, irrespective of their designation'.
- 3. In May 2017 Cadw published a range of Best-Practice Guidance documents. These include:
 - Managing Change in World Heritage Sites
 - Setting of Historic Assets in Wales
 - Heritage Impact Assessment in Wales
- 4. Cadw's Conservation Principles for the Sustainable Management of the Historic Environment was published in March 2011 and set out a series of principles for caring for the heritage and criteria for evaluating heritage values. Paragraph 1.26 states that:

"It is for the applicant to provide the local planning authority with sufficient information to allow the assessment of their proposals in respect of scheduled monuments, listed buildings, conservation areas, registered historic parks and gardens, World Heritage Sites, or other sites of national importance and their settings. These principles, however, are equally applicable to all historic assets, irrespective of their designation."

England

- 5. The National Planning Policy Framework (NPPF) published in 2012 contains the government's policy with regard to the historic environment and includes a chapter entitled 'Conserving and Enhancing the Historic Environment'. Paragraph 132 robustly states 'great weight should be given to its [i.e. the WHS] conservation and substantial harm to a World Heritage Site's significance (the heritage aspects of its Outstanding Universal Value) or total loss of the site should be wholly exceptional.
- 6. A revised edition of this guidance is currently (May 2018) out for consultation and it is noted that this has been amended, with Paragraph 197 now stating that 'Not all elements of a World Heritage Site or Conservation Area will necessarily contribute to its significance. Loss of a building (or other element)

which makes a positive contribution to the significance of the Conservation Area or World Heritage Site should be treated either as substantial harm under paragraph 190 or less than substantial harm under paragraph 191, as appropriate, taking into account the relative significance of the element affected and its contribution to the significance of the Conservation Area or World Heritage Site as a whole'.

Heritage Designations

Scheduled Ancient Monuments

- Scheduling is the highest level of heritage protection for ancient monuments in the UK and is governed by the provisions of the Ancient Monuments and Archaeological Areas Act 1979 (as amended in Wales by the Historic Environment (Wales) Act 2016).
- 8. Almost the whole length of the canal has now been designated as a Scheduled Ancient Monument, with the scheduled area extending from the southern end of the Chirk Aqueduct to Trevor Basin and the terminus of the canal and then west along the Llangollen Canal to the Horseshoe Falls. Pontcysyllte Aqueduct itself has been scheduled since 1958. The Cysylltau Bridge to the west of the Pontcysyllte Aqueduct is also a Scheduled Ancient Monument. A further twelve Scheduled Ancient Monuments within the Buffer Zone are protected by scheduling, including Castell Dinas Bran, Offa's Dyke and Valle Crucis Abbey.

Conservation Areas

- 9. Conservation Areas are designated under the Planning (Listed Buildings and Conservation Areas) Act 1990 (as amended in Wales by the Historic Environment (Wales) Act 2016) to protect 'areas of special architectural and historic interest, the character and appearance of which it is desirable to preserve or enhance'.
- 10. Four Conservation Areas cover part of the World Heritage Site, namely:
 - Pontcysyllte Aqueduct Conservation Area extended and renamed in 2009 to include the area around the canal at Froncysyllte.
 - Chirk Conservation Area extended in 2014 to incorporate Chirk Aqueduct and Tunnel. A character assessment and management plan was produced at this time.
 - Plas yn Pentre Conservation Area (near Llangollen).
 - Llangollen Conservation Area.
- 11. Conservation Areas covering parts of the Buffer Zone in close proximity to the World Heritage Site are at Llantysilio and Cefn Mawr. The Cefn Mawr Conservation Area has been significantly enhanced through a Townscape Heritage Initiative (THI), funded by the Heritage Lottery Fund and Welsh Government.

Listed Buildings

12. Buildings and structures of special or architectural or historic interest are designated under the Planning (Listed Buildings and Conservation Areas) Act 1990 in England, as amended by the Historic Environment (Wales) Act 2016 in Wales. As of 2018, there are 33 listed buildings within the World Heritage Site, together with a further 343 listed buildings in the Buffer Zone

Register of Historic Landscapes

13. The Register of Landscapes of Special Historic Interest in Wales was issued in 2001 by Cadw, the (then) Countryside Council for Wales and ICOMOS UK. The Vale of Llangollen and Eglwyseg is included in the Register and covers a large proportion of the World Heritage Site and Buffer Zone, including Pontcysyllte Aqueduct and the surrounding area. Inclusion on the Register highlights this area as one of the best historic landscapes in Wales and thereby strengthens consideration of landscape issues in planning decisions.

Register of Historic Parks and Gardens

- 14. The Historic Environment (Wales) Act 2016 placed a new duty on the Welsh Ministers to compile and maintain a statutory register of historic parks and gardens in Wales and make it available to the public. The new register currently being prepared will replace the existing non-statutory register and incorporate the 386 historic parks and gardens already registered as well as adding any additional sites that are judged to meet the published criteria.
- 15. Sites within the Buffer Zone that are currently on the Register are detailed below.

Sites in the Buffer Zone (and in the immediate vicinity of the World Heritage Site)	Sites in the wider Buffer Zone
Argoed Hall Bryntisilio Chirk Castle Whitehurst Gardens	Brynkinalt Llantysilio Hall Plas Newydd Trevor Hall Valle Crucis Vivod

Offa's Dyke National Trail

- 16. This prestigious long-distance trail utilises the canal towing-path for part of its length and crosses the River Dee by Pontcysyllte Aqueduct and Cysylltau Bridge within the World Heritage Site. As an important national route, it brings thousands of visitors to the World Heritage Site each year and demonstrates the importance of linkages between the waterway and other assets in terms of accessibility and infrastructure.
- 17. National Trails are designated under the 1949 National Parks and Access to the Countryside Act. The Offa's Dyke National Trail is managed jointly between Natural England, Natural Resources Wales and the relevant Highways Authorities.

Natural Environment Designations

Area of Outstanding Natural Beauty

18. Most of the World Heritage Site and its Buffer Zone lies within the Clwydian Range and Dee Valley AONB which was extended in November 2011 to include the Dee Valley, Vale of Llangollen and parts of North Berwyn. The

Clwydian Range and Dee Valley AONB now covers the World Heritage Site from Horseshoe Falls in the west, to Newbridge Viaduct in the east. The AONB also encompasses the majority of the Buffer Zone with the exception of areas at Garth Trevor, Cefn Mawr and Chirk / Y Waun.

19. The Clwydian Range and Dee Valley AONB Management Plan 2014 -19 recognises the World Heritage Site as a significant feature within the AONB's historic environment and prescribes management actions that complement and integrate with the aims and objectives of the Pontcysyllte Aqueduct and Canal World Heritage Site Management Plan.

Special Areas of Conservation (SAC)

- 20. The World Heritage Site includes sections of the River Dee and Bala Lake Special Area of Conservation (SAC) at Horseshoe Falls, Pontcysyllte and Chirk Aqueduct and is in close proximity to the SAC for a significant part of its length. SACs are designated under the European Habitats Directive (Council Directive 92/43/EEC). The Conservation of Habitats and Species Regulations 2017 consolidates former amendments and transposes the Council Directive onto national law.
- 21. SACs form part of a European network of high-quality sites that make a significant contribution to the conservation of those habitats and species that are considered to be most in need at a European level. Habitats and species for which the River Dee and Bala Lake SAC is designated are:
 - Water courses of plain to montane levels with *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation
 - Atlantic salmon Salmo salar
 - Floating water-plantain Luronium natans
 - Sea lamprey Petromyzon marinus
 - Brook lamprey Lampetra planeri
 - River lamprey Lampetra fluviatilis
 - Bullhead Cottus gobio
 - Otter *Lutra*

Sites of Special Scientific Interest

22. The Rivers Dee and Ceiriog are covered by separate English and Welsh designations as Sites of Special Scientific Interest (SSSIs). This is a UK nature conservation designation under the Wildlife and Countryside Act 1981 (as amended). The SSSI is designated for the features described in paragraph 21 above and for additional habitats that are important within the context of the UK, as well as a range of invertebrates and vascular plants. The SSSI on the Welsh side of the World Heritage Site also holds three geological features: rock exposures at Dee Bridge; the River Dee meanders and the banks and terraces in the Rhewl section.

Land-Use Planning

23. The Wrexham Unitary Development Plan is the current adopted plan for the County Borough. It does not make specific reference to the World Heritage Site as it was adopted in 2005 prior to the inscription. The policies in the deposit Wrexham LDP are now consistent with that of the Denbighshire LDP,

- seeking to protect the Outstanding Universal Value, authenticity and integrity of the World Heritage Site as well as to ensure tourist facilities and infrastructure are appropriately sited. Proposed policies in the deposit Wrexham LDP also include those relating to the definition of settlement limits, the provision of green wedge designations and Special Landscape Area protection policies.
- 24. The Denbighshire Local Development Plan includes Policy VOE3 (Pontcysyllte Aqueduct and Canal World Heritage Site) which states that 'Development which would harm the attributes which justified the designation of the Pontcysyllte Aqueduct and Canal as a World Heritage Site and the site's Outstanding Universal Value will not be permitted. The following are considered to be key material considerations:
 - i) The authenticity and integrity of the attributes that contribute to the Outstanding Universal Value of the World Heritage Site including views, and features of cultural, artistic, historical, social and natural environmental importance.
 - ii) The setting of the World Heritage Site and attributes important to the Outstanding Universal Value of the site present within the Buffer Zone.'
- 25. Shropshire County Council has adopted a Core Strategy, Site Allocations and Development Control Policies which include specific World Heritage Site policies, for the Inscribed Site, Buffer Zone and setting. The Core Strategy will establish the over-arching planning strategy and will provide the strategic policy base for decision making. The Site Allocations document will identify and allocate housing, employment and other land to meet development requirements and other objectives. The Site Allocations and Development Management document (SAMDev) sets out topic related policies for the control of development. Policy MD13 relates to the Historic Environment and includes reference to World Heritage Sites as designated assets.
- 26. Within Shropshire, a total of eighteen Place Plans have been produced, including one for Oswestry and the surrounding area, which includes the Weston Rhyn, St Martin's and Gledrid areas of the WHS and Buffer Zone. The Place Plan (produced in 2015-16) summarises and prioritises local infrastructure needs and identifies wider investment needs to assist delivery of the community's vision and aspirations. The Place Plan provides part of the evidence base for Shropshire's Local Plan and forms a material consideration for planning applications.

APPENDIX C

Statutory Duties and Responsibilities

Canal & River Trust

- 1. The charitable objects of the Canal & River Trust include to:
 - protect and conserve for public benefit sites, objects and buildings of archaeological, architectural, engineering or historic interest on, in the vicinity of, or otherwise associated with Inland Waterways;
 - promote, facilitate, undertake and assist in, for public benefit, the restoration and improvement of Inland Waterways; and
 - promote and facilitate for public benefit awareness, learning and education about Inland Waterways, their history, development, use, operation and cultural heritage by all appropriate means including the provision of museums.
- 2. The Trust operates under a comprehensive *Heritage Policy* which states that:
 - 'Our aim is for the heritage of the waterways to be treasured as a valued national asset. The careful protection and management of that heritage is an essential part of the ongoing work to achieve our vision.'
- 3. The transfer from British Waterways to the Canal & River Trust took place in 2012 and its primary statutory responsibilities, to keep the waterways open and safe, are set out in the 1962 and 1968 *Transport Acts.* It was not until the *British Waterways Act*, 1995 that these duties were modified to include references to conservation:
 - Under Section 22 subsection (1) British Waterways (i.e. now Canal and River Trust) is obliged when formulating or considering any proposals in relation to its functions:
 - so far as may be consistent with the purposes of any enactment relating to those functions, so to exercise any power conferred on them with respect to the proposals as to further the conservation and enhancement of natural beauty and the conservation of flora, fauna and geological or physiographical features of special interest;
 - to have regard to the desirability of protecting and conserving buildings, sites and objects of archaeological, architectural, engineering or historic interest; and
 - c) to take into account any effect which the proposals would have on the beauty or amenity of any rural or urban area or on any such flora, fauna, features, buildings, sites or objects.

Under subsection (2), and subject to obligations set in sub section (1) British Waterways (i.e. now Canal and River Trust) is also obliged when formulating or considering any proposals relating to its functions:

- to have regard to the desirability of preserving for the public any freedom of access to towing-paths and open land and especially places of natural beauty;
- to have regard to the desirability of maintaining the availability to the public of any facility for visiting or inspecting any building, site or object of archaeological, architectural, engineering or historic interest;

- to take into account any effect which the proposals would have on any such freedom of access or on the availability of any such facility;
- d) to take into account the desirability of protecting for future use as cruising waterways, or as areas appropriate for other public recreational use, remainder waterways with potential for such use.
- 4. The Trust's routine operations are largely exempt from land-use planning but are not exempt from heritage protection controls. The Trust complies with these through an asset management system and corporate policies. The asset management system ensures that routine inspections are carried out to monitor condition and inform maintenance and repair programmes to ensure that the asset base is in fair condition. Routine maintenance is delivered by a locally-based team of direct staff with contractor support as necessary. More extensive works are prioritised on a national basis and included in an asset improvement investment programme. Prioritisation is based on a range of asset condition, public duty and user impact criteria and available funds are allocated to the highest priority structures.
- 5. The Trust also publishes, in its annual Heritage Reports, a Statement of Principles for the Waterways Heritage.
- 6. Works by third parties are subject to an approval procedure set out in the Code of Practice for Works affecting the Canal and River Trust. Commercial operators on the canal are managed through Licences and Agreements. Individual boats must obtain a licence for navigation and boaters are required to comply with the Canal and River Trust Byelaws.
- 7. The towing-path and associated land are generally open to public access on a permissive basis. The Trust maintains a presence seven days a week at Pontcysyllte Aqueduct and at Llangollen moorings from Easter to October. Key operational sites (such as Horseshoe Falls and the flood weirs) are visited daily throughout the year.



APPENDIX D

Gazetteer Summary

The following table provides a summary of the heritage features within the World Heritage Site, from east to west. The State of Conservation Report 2017 provides further detail on the condition of individual features.

Ref No.	Feature	Grid Reference	Description	Ownership	Protection	Condition (2017)
1	Main line canal formation NPRN405725	SJ 29811 36854- SJ 27241 42464	Channel of main line of the Ellesmere Canal within the Nominated Site for the 5 miles (8km) from Gledrid Bridge to the terminus at Trevor Basin	Canal & River Trust	Scheduled	Fair / Good
2	Gledrid Bridge (19) NPRN405775	SJ 29811 36854	Brick canal over-bridge similar to the typical design used on the main line; with stop-plank grooves to isolate sections of the canal in case of a breach or for maintenance	Shropshire Council	In Setting	Poor
3	Chirk Bank Embankment (15) NPRN405776	SJ 29596 37031	Large embankment on the south side of the Ceiriog Valley; the start of the section of highly-engineered canal through difficult terrain to Trevor	Canal & River Trust and private	Scheduled	Fair
4	Remains of Quinta Bridge (20) NPRN406641	SJ 29467 37035	Narrowing at the site of the former Bridge No 20, with stop-plank grooves to isolate sections of canal in case of a breach or for maintenance	Canal & River Trust and private	Scheduled	Fair
5	Chirk Bank spoil tip NPRN406642	SJ 29326 37103	Bank projecting into the valley north eastwards from the canal towing-path for spoil probably from one of the early canal side collieries	Canal & River Trust and private	In Setting	Fair
6	Quinta Colliery and Brickworks railway wharf NPRN406643	SJ 29279 37090	Industrial wharf in a terraced area in the hillside with a low retaining wall to south, now gardens	Canal & River Trust and private	In Setting	Poor

Ref No.	Feature	Grid Reference	Description	Ownership	Protection	Condition (2017)
7	Chirk Bank public wharf NPRN406644	SJ 29230 37122	Level wharf area for general trade on the canal, alongside what was to become the Holyhead Road	Canal & River Trust and private	Scheduled	Fair / Poor
8	Canal View Cottages NPRN405777	SJ 29225 37141	Row of canal-side cottages and a former public house alongside the canal and Holyhead Road	Private	In Setting	Fair / Poor
9	Chirk Bank Bridge NPRN40577	SJ 29202 37119	Bridge of innovative design with a flattened stone arch supported by curved cast-iron beams to reduce the gradients on the approaches for traffic crossing	Shropshire C	Listed	Fair / Poor
10	Chirk Bank Bridge wharf NPRN406662	SJ 29186 37133	Wharf to west of Chirk Bank Bridge; site of warehouse and stables demolished in 1933	Canal & River Trust	Scheduled	Fair
11	Remains of Woodlands Bridge (22) NPRN405779	SJ 29086 37155	Fine ashlar pillar on the south side of the canal that once supported a typical canal footbridge; footings of the northern support are buried	Canal & River Trust and private	Scheduled	Poor
12	Chirk Aqueduct building- stone quarry NPRN406645	SJ 29021 37127	Quarry excavated from the level of the canal on its south side for stone to build Chirk Aqueduct	Canal & River Trust and private	In Setting	Fair
13	Cartref NPRN405781	SJ 28945 37145	Worker's cottage on canal-owned spoil bank	Private	In Setting	Poor
14	4-5 Aqueduct Cottages NPRN406599	SJ 28830 37133	Pair of red brick, semi-detached houses for canal maintenance workers; joined privy and pigsty block at garden end	Private	In Setting	Fair
15	Chirk Aqueduct construction yard platform NPRN406663	SJ 2873 3714	Huge earthwork platform believed to have been created as a yard for dressing stone and preparing materials to construct Chirk Aqueduct	Canal & River Trust and private	In Setting	Fair

Ref No.	Feature	Grid Reference	Description	Ownership	Protection	Condition (2017)
16	Aqueduct Cottages maintenance depot hut NPRN405783	SJ 28814 37133	Corrugated-iron maintenance depot shed in a yard between Aqueduct Cottages	Canal & River Trust	-	Poor
17	Chirk Bank West Cutting (23-24) and embankments (16-18) NPRN405782	SJ 28906 37130	Considerable rock cutting in hillside to accommodate the canal as it swings north to cross the Ceiriog Valley, with a large earthwork bank opposite	Canal & River Trust	Scheduled	Fair
18	2-3 Aqueduct cottages, Chirk Bank NPRN405782	SJ 28784 37140	Semi-detached houses for canal maintenance workers. Late nineteenth or early twentieth century	Private / Canal &River Trust (No3)	In Setting	Fair
19	1 Aqueduct Cottages, Chirk Bank NPRN406598	SJ 28764-37157	Red-brick, detached house built for a canal maintenance foreman at the south end of Chirk Aqueduct; privy and pig-sty at garden end	Private	In Setting	Fair
20	Chirk Aqueduct NPRN344016	SJ 28700 37283	Ten-arch masonry aqueduct, the tallest navigable aqueduct in the world before Pontcysyllte; it tested and developed methods of using voids in masonry and iron-plates in the trough; outlet sluice 9; stopplank grooves	Canal & River Trust	Scheduled Listed	Good
21	Chirk Railway Viaduct NPRN87002	SJ 28669 37286	Tall masonry railway viaduct which demonstrates the era of transport engineering following the canals, built by Telford's former assistant	Network Rail	Listed	Fair
22	Land to east and west of Chirk Aqueduct	SJ 28695 37364	Meadow land in the floor of the Ceiriog Valley of importance to the visual surroundings of Chirk Aqueduct	Private	In Setting	Good
23	Chirk Mill leat NPRN406646	SJ 28695 37364	Mill leat passing under Chirk Aqueduct, now dry; part of the precanal water economy; supplied a medieval corn mill and a turbine generating electricity for Chirk 1924-30	Canal & River Trust and private	In Setting	-

Ref No.	Feature	Grid Reference	Description	Ownership	Protection	Condition (2017)
24	Holyhead Road Embankment, Chirk NPRN406698	SJ 28950 37368	Large, straight and evenly-graded earthen embankment; one of the major works on the Holyhead Road designed by Telford following his commission by parliament in 1811 to improve the route from London to Dublin	Wrexham CBC and Private	Scheduled	Good
25	Chirk Basin and cutting 25-6 NPRN405784	SJ 28657 37410	Basin constructed in a cutting and shelf on the steep hillside between Chirk Aqueduct and Chirk Tunnel, used for waiting boats and wharf traffic; briefly the terminus of the canal, 1801-02	Canal & River Trust	Scheduled	Good
26	Site of Chirk Basin wharf buildings NPRN406665	SJ 2867 3741	Site of probable weighbridge and wharfinger's hut, with archaeological potential	Canal & River Trust	Scheduled	Fair
27	Telford Lodge / Min-y- warn, Chirk NPRN406597	SJ 28599 37409	Hip-roofed villa, probably the resident engineer's house overlooking the major works at Chirk	Private	In Setting	Poor
28	Chirk Tunnel NPRN405785	SJ 28522 37613	One of the first British canal tunnels with a towing-path, supported on arches; brick-lined and built by cut and-cover but with centre section excavated from tow shafts, one still open from below; maximum depth 46ft 7ins (114.23m); stop-plank grooves	Canal & River Trust	Scheduled Listed	Good
29	Canal Wood Cutting, Chirk NPRN405790	SJ 28241 38264	Long cutting to permit a straight route for the canal, the sides probably planted for stability, exemplifying cut-and-fill earth-moving developed on the canal	Canal & River Trust	Scheduled	Fair
30	Glyn Ceiriog Tramway wharf NPRN406666	SJ 28477 38822	Masonry quay wall on the towing-path side of the canal for unloading rail wagons	Canal & River Trust	Scheduled	Poor
31	Afon Bradley feeder NPRN406667	SJ 28470-38843	Substantial stream diverted into the canal to gather water	Canal & River Trust	Scheduled	Good

Ref No.	Feature	Grid Reference	Description	Ownership	Protection	Condition (2017)
32	Black Park Collieries railway dock turning-basin NPRN405986	SJ 28479 38887	Turning basin for boats serving the railway-canal interchange	Canal & River Trust	Scheduled	Fair
33	Black Park Collieries railway dock NPRN405791	SJ 28505 38863	Entrance to a former loading dock, with blocking visible under the towing-path; buried loading dock at right-angles beyond	Canal & River Trust and corporate	Scheduled (part)	Fair / Good
34	Afon-Bradley overflow, culvert 91, and sluice 10 NPRN405792	SJ 28509 38965	Complex of water-control features to avoid flooding of the canal	Canal & River Trust	Scheduled	Fair
35	Red Bridge Cutting (29-30)	SJ 28563 39241	Shallow cutting on both sides of the canal to facilitate a straight cross	Canal & River Trust	Scheduled	Poor
36	Red Bridge abutments (24) NPRN405793	SJ 28561 39144	Narrowing of the canal for a former arched over-bridge of which the masonry abutments remain; stop-plank grooves	Canal & River Trust	Scheduled	Poor
37	Afon-Bradley limekilns NPRN405795	SJ 28586 39335	Two limekilns built into the towing-path side of the canal; brick drawing arch in a rubble-stone kiln; indicative of lime production for building the canal and later trade	Canal & River Trust	Scheduled	Poor
38	Afon-Bradley Farm Culvert (92) NPRN406721	SJ 28550 39486	Culvert to take a small stream under the canal	Canal & River Trust	Scheduled	Fair
39	Whitehouses Tunnel south approach cutting NPRN406591	SJ 28634 39971- SJ 28628 39842	Deep cutting leading up to Whitehouses Tunnel; exemplifying how cut-and-fill earth-moving developed on the canal	Canal & River Trust	Scheduled	Fair / Poor

Ref No.	Feature	Grid Reference	Description	Ownership	Protection	Condition (2017)
40	Whitehouses Tunnel (25) NPRN405796	SJ 28633 40059	One of the first canal tunnels in Britain with a towing-path, built by cut-and cover, portals at each end of ashlar arches set in battered brick retaining walls, curved for strength; stop-plank grooves	Canal & River Trust	Scheduled Listed	Fair / Good
41	Whitehouses Tunnel north approach cutting NPRN406590	SJ 28613 40272 to SJ 2863140148	Deep cutting leading up to Whitehouses Tunnel; exemplifying how cut-and-fill earth-moving developed on the canal	Canal & River Trust	Scheduled	Fair
42	Pen-y-Bryn Embankment and culvert 93 NPRN406722	SJ 28621 40242	Embankment and stone-arched steam culvert	Canal & River Trust	Scheduled	Fair
43	Pentre Embankment (19) and Bryn-yr-oes Culvert (94) NPRN406723	SJ 28596 40388	Embankment and stone-arched steam culvert	Canal & River Trust	Scheduled	Good
44	Whitehouse Bridge (26) NPRN405797	SJ 28584 40455	Original arched masonry bridge with stop-plank grooves	Canal & River Trust	Listed	Fair
45	Irish Bridge Cutting (33-4) NPRN405993	SJ 28594 40657	Deep cutting, 1,213ft (370m) long exemplifying the development of cut and-fill earth-moving; spoil was used in the Pontcysyllte Aqueduct approach embankment	Canal & River Trust	Scheduled	Fair / Poor
46	Irish Bridge (27) NPRN405798	SJ 28595 40764	Tall masonry bridge near the north end of Irish Bridge Cutting, with high abutments of a type used to cross deep cuttings on later canals	Wrexham CBC	Listed	Good
47	Irish Bridge Embankment (20) NPRN406696	SJ 28433 40838	Valley-side-embankment	Canal & River Trust	Scheduled	Fair

Ref No.	Feature	Grid Reference	Description	Ownership	Protection	Condition (2017)
48	Pen-y-bont Brick and Tile Works wharf NPRN406701	SJ 28576 40811	Wharf for a railway from Pen-y-bont Brick and Tile Works	Canal & River Trust	Scheduled	Fair
49	Cross Street Farm Cutting (36) NPRN406647	SJ 28169 40892	Low cutting on the south-west of the canal	Canal & River Trust	Scheduled	Fair
50	Cross Street stop-plank grooves NPRN406648	SJ 27965 41001	Narrowing of the canal with masonry facing and slots for stop-planks to retain water in the event of a breach or to drain sections for maintenance	Canal & River Trust	Scheduled	Fair
51	Cross Street Aqueduct and Embankment NPRN405799	SJ 27861 41038	Embankment with small, single-arch aqueduct of traditional masonry and puddled clay design; originally an accommodation crossing for farmland; later used by a horse-drawn railway	Canal & River Trust	Scheduled Listed	Fair BAR Status 4
52	Fron Embankment (21) NPRN406649	SJ 27688 41157	Large embankment on the valley-side of the canal using spoil from the Irish Bridge and Chirk Wood cuttings exemplifying the development of cut and-fill earth-moving	Canal & River Trust	Scheduled	Fair
53	Froncysyllte east limekiln bank / Pen-y-Bryn wharf NPRN405808	SJ 27486 41180	Tall bank of six masonry kilns, showing the growth of the lime industry; wharf for Pen-y-Bryn limestone quarries railway	Private	In Setting	Poor BAR Status 4
54	Ty^-uchaf culvert (95) and sluice (11) NPRN405811	SJ 27455 41228	Tall masonry-arched culvert to take a stream under the canal, linked to a sluice to drain the canal for maintenance	Canal & River Trust	Scheduled	Good
55	Froncysyllte limekilns dock NPRN406651	SJ 27423 41205	Loading dock formed in an indent in the hillside where a stream entered the canal, now buried	Private	Scheduled	Poor

Ref No.	Feature	Grid Reference	Description	Ownership	Protection	Condition (2017)
56	Froncysyllte west limekiln bank and wharf NPRN405809	SJ 27373 41211	Two banks of masonry limekilns of early nineteenth-century type and a wharf for canal trade, originally owned by William Hazeldine; served by railway from Froncysyllte Limestone Quarries	Private	In Setting	Fair
57	Fron footbridge NPRN406703	SJ 27151 41313	High-level steel and masonry footbridge for use when the lift bridge is open	Canal & River Trust	In Setting	Fair
58	Fron Lift bridge (28) NPRN405810	SJ 27146 41313	Modern bascule bridge to traditional design for low-level canal crossings but with hydraulic power; stop-plank grooves	Canal & River Trust	In Setting	Fair / Good
59	Froncysyllte canal- cottage NPRN406526	SJ 27022 41365	Former canal lengthman's house, indicative of developing provision for maintenance workers on the canal	Private	In Setting	Good
60	Froncysyllte basin culvert (96) NPRN406704	SJ 27063 41362	Typical arched culvert carrying a stream under the basin; stream now diverted, and culvert abandoned	Canal & River Trust	Scheduled	-
61	Froncysyllte public wharf NPRN406706	SJ 27042 41370	Level wharf area for general trade, with road access; at the terminus of the canal from 1802 until Pontcysyllte Aqueduct was completed in 1805	Canal & River Trust	Scheduled	Fair
62	Froncysyllte Bain NPRN406708	SJ 27066 41364	Widening of the canal for boats to wait before entering the Pontcysyllte Aqueduct approach embankment, the terminus of the canal from 1802 to 1805	Canal & River Trust	Scheduled	Fair
63	Froncysyllte mess and Old Institute NPRN406527/406528	SJ 27032 41388	Mess building for canal maintenance workers and a former workers' institute which provided education for boat children	Canal & River Trust	In Setting	Good
64	Froncysyllte Aqueduct south embankment (23) NPRN405812	SJ 27012 41739	Earth embankment bringing the canal up to Pontcysyllte Aqueduct, 2,000ft (610m) long and 75ft (23m) high, planted with trees to increase stability; one of the largest civil earthworks of its era	Canal & River Trust	Scheduled Conservation Area	Fair

Ref No.	Feature	Grid Reference	Description	Ownership	Protection	Condition (2017)
65	Pontcysyllte Aqueduct NPRN34410	SJ 2705 4203	Nineteen-span cast-iron aqueduct supported on tapering masonry piers; a pioneering work of the heroic phase of British canal engineering and the central feature of the World Heritage Site	Canal & River Trust	Listed Scheduled Conservation Area	Good
66	Land to the west and east of Pontcysyllte Aqueduct	SJ 2705 4203	Meadows and woods around the River Dee of importance to the immediate visual setting of Pontcysyllte Aqueduct	Private / corporate	Conservation Area (part) In Setting	Good
67	Cysylltau road bridge over the River Dee NPRN23989	SJ 2681 4204	Post-medieval three-arched bridge over the River Dee providing historical comparisons with the engineering of the canal and important views of Pontcysyllte Aqueduct, which derives its name from the bridge	Wrexham CBC	Listed Scheduled	Good
68	Trevor Basin NPRN402309	SJ 2714 4228	Basin 0.2 miles (0.34km) long forming the terminus to the main line of the canal, on an artificial terrace retained by a stone wall to the south-east; ending in an interchange point for an early horse-worked railway	Canal & River Trust	Scheduled Conservation Area	Good
69	Trevor Basin dry docks swing-bridge NPRN406627	SJ 27093 42207	Timber swing-bridge carrying the towing-path over the entrance to dry docks; similar to large swivel bridges later used by Telford and Jessop on the Caledonian Canal	Canal & River Trust	Conservation Area	Fair
70	Trevor Basin dry docks NPRN405831/406530	SJ 27106 42199	Twin dry docks with a partial cover building that is a rare example of canal dry docks still in operation; double wrought-iron basins on a masonry hearth to boil pitch; drainage culvert along the foot of Trevor Basin platform	Canal & River Trust	Listed Conservation Area	Good
71	Trevor Basin interpretation centre NPRN406713	SJ 27106 42183	Red-brick stores building south of the dry dock, now an interpretation centre for the World Heritage Site	Canal & River Trust	Conservation Area	Good

Ref No.	Feature	Grid Reference	Description	Ownership	Protection	Condition (2017)
72	Trevor Basin building platform retaining wall NPRN406652	SJ 27099 42159	Coursed rubble-stone wall at southeast of the building platform on which Trevor Basin is constructed	Canal & River Trust	Scheduled Conservation Area	-
73	Trevor Basin dry dock manager's house NPRN406700	SJ 27133 42216	House close to the north-east corner of the dry dock for canal- related workers; later a public house	Canal & River Trust	Conservation Area	Good
74	Trevor Basin waste-water weir and culvert NPRN406529	SJ 27077 42159	Masonry weir on the eastern side of the canal with a culvert under the towing-path and Trevor Basin platform	Canal & River Trust	Scheduled Conservation Area	-
75	Trevor Basin warehouse NPRN405823	SJ 27093 42258	Stone-built warehouse or store for general trade on the canal, built into the west wall on the terrace created for the basin; now offices, shop and café	Canal & River Trust	Conservation Area	Fair
76	Trevor Basin footbridge NPRN406532	SJ 27121 42253	Modern concrete beam footbridge on masonry supports	Canal & River Trust	Conservation Area	Poor
77	Car park and toilets	SJ 27185 42269	Modern visitor facilities for the World Heritage Site	Wrexham CBC	Conservation Area	Good
78	Land to east of Trevor Basin	SJ 27196 42144	Land near the interpretation centre of importance to views of Pontcysyllte Aqueduct	Private	Conservation Area	Fair
79	Trevor Basin stores NPRN406654	SJ 27150 42253	Wide corrugated-iron shed on the wharf, typical of twentieth-century canal-side stores buildings	Canal & River Trust	Conservation Area	Fair / Poor
80	Ruabon Brook Railway branch at Trevor basin NPRN406707	SJ 27141 42290	Narrow-gauge railway track and siding on the west side of Trevor Basin for a railway-canal interchange	Canal & River Trust	Conservation Area	Fair

Ref No.	Feature	Grid Reference	Description	Ownership	Protection	Condition (2017)
81	Trevor Basin waste-water channel NPRN406714	SJ 27137 42064	Long and steep masonry overflow channel from the canal to the River Dee, diverted obliquely south eastwards to avoid any danger of scouring the piers of Pontcysyllte Aqueduct	Canal & River Trust	Conservation Area	Fair
82	Scotch Hall / Telford Inn NPRN27905	SJ 2714 4232	Believed to be the house of the resident engineer Matthew Davidson and where Telford stayed during the building of Pontcysyllte Aqueduct; now a public house	Private	Listed Conservation Area	Good / Fair
83	Scotch Hall account house outbuilding NPRN405996	SJ 27151 42319	Single-storey building on the southwest side of Scotch Hall Bridge, believed to be the accounts house and coach house during construction of Pontcysyllte Aqueduct; now a house	Private	Listed Conservation Area	Good
84	Scotch Hall Bridge NPRN34411	SJ 27173 42317	Masonry bridge of an innovative design with a flattened stone arch supported by curved cast-iron beams; two later side arched, one spanning an extension of the Ruabon Brook, stop-plank grooves	Wrexham CBC	Listed Conservation Area	Fair / Good
85	Trevor Basin culvert (1) NPRN406709	SJ 27181 42329	330ft (100.) long diagonal culvert under Trevor Basin and its earthwork platform from the south of Scotch Hall to discharge east of the platform	Canal & River Trust	Scheduled Conservation Area	-
86	Rose Cottage wharfinger's house NPRN406534	SJ 27165 42351	House typical of canal wharf workers' accommodation	Private	Conservation Area	Good
87	Ruabon Brook Railway pier NPRN405833	SJ 27216 42425	Masonry pier projecting into Trevor Basin which carried three lines of tracks allowing wagons on the horse worked railway to discharge into boats on either side	Canal & River Trust	Scheduled Conservation Area	Poor
88	Ruabon Brook Railway buildings NPRN406653	SJ 27200 42478	Buildings serving the horse-worked Ruabon Brook Railway at the canal terminus; then houses, now demolished	Canal & River Trust	Conservation Area	Poor

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89	Plas Kynaston Canal Bridge NPRN406531	SJ 27255 42461	Narrow serving the horse-worked Ruabon Brook Railway at the canal terminus; then houses, now demolished	Canal & River Trust	Conservation Area	Poor
90	Ruabon Brook Railway/ transfer dock NPRN406705	SJ 27241 42464	Single-boat dock at the north-east corner of Trevor Basin originally enclosed in a railway-canal transfer warehouse	Canal & River Trust	Scheduled Conservation Area	Poor
91	Llangollen Branch formation NPRN405725	SJ 27056 42214- SJ 19588 43283	Channel of the Llangollen Branch for 5.8 miles (9.32km) from the main line at Trevor to the feeder watercourse; built to a narrower specification on steep slope, subject to breaches and preventative re-lining	Canal & River Trust	Scheduled	Fair / Good
92	Site of Rhôs-y-coed railway bridge NPRN406699	SJ 27065 42212	Site of a flat-decked movable bridge for an extension of the Ruabon Brook Railway, adjacent to the junction bridge at the entrance to the Llangollen branch	Canal & River Trust	Scheduled Conservation Area	Fair
93	Rhôs-y-coed Bridge NPRN405835	SJ 27056 42214	Junction bridge at entrance to the Llangollen Branch, of an innovative design with a flattened stone-arch supported by curved cast-iron beams; stop-plank grooves	Wrexham CBC	Listed Conservation Area	Fair
94	Western construction yard for Pontcysyllte Aqueduct and site of Trevor Forge NPRN406689/406686-7	SJ 27032 42177	High masonry wall supporting a platform levelled for the construction of Pontcysyllte Aqueduct and later occupied by Exuperius Pickering's Trevor Forge and coking kilns and a wharf for Ruabon Brook Railway; now houses and gardens	Canal & River Trust and private	Conservation Area (part)	Fair
95	Bont Wood Cutting (37) NPRN406710	SJ 26991 42221	Cutting on the hill side of the feeder canal as it branches west	Canal & River Trust	Scheduled	Good

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96	Postles Roving Bridge NPRN405868	SJ 26936 42217	A bridge for carrying the towing-path from one side of the canal to the other, with both approaches on the same side to allow the towing rope to pass through; original masonry supports with later steel deck	Canal & River Trust	In Setting	Good
96A	Postles Roving Bridge new ramp		Postles Roving Bridge new ramp	-	-	
97	Detached part of western construction yard for Pontcysyllte Aqueduct NPRN406702	SJ 26883 42224	Earthwork platform largely untouched since the time of the Pontcysyllte Aqueduct construction and likely to have archaeological potential, cut by the Llangollen Branch c.1805; later used for forge slag tipping	Canal & River Trust and private	In Setting	-
98	Wood Bank culvert (97) and embankment NPRN406535	SJ 26835 42191	Culvert and substantial embankment	Canal & River Trust	Scheduled	-
99	Wood Bank and malt kilns NPRN308392/405837	SJ 26814 42158	House overlooking Pontcysyllte Aqueduct, formerly owned by the canal company and reputed to be the drawing office during construction; associated malt kilns built into the canal bank	Private	Listed	Kilns BAR Status 4
100	White Bridge footbridge (33) NPRN405867	SJ 26785 42171	Footbridge with stone abutment; timber deck replaced in steel	Canal & River Trust	In Setting	Poor
101	Plas-yn-y-pentre Bridge (34) NPRN405866	SJ 26103 41522	Original arched masonry bridge and stop-plank grooves	Denbighshire CC	Listed	Fair
102	Trevor Mill culvert (98) and Millars Embankment (24-25) NPRN405865	SJ 25960 41387	Masonry stream culvert and very large embankment on the site of an earlier mill-pond; later the site of a large breach	Canal & River Trust	Scheduled	-
103	Millars Bridge wharf NPRN406614	SJ 25885 41340	Site of a crane and stone on a small road-side wharf along the towing-path probably for Trevor corn mill	Canal & River Trust	Scheduled	Fair

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104	Millars Bridge (35) NPRN405864	SJ 25868 41335	Original arched masonry bridge for a road diverted during construction, with unusually wide brick arch to improve visibility and manoeuvrability on a curve	Denbighshire CC	Listed	Fair
105	Bryn-ceirch Cutting (38), and embankment NPRN406613/406623	SJ 25389 41457	Shelf into the hillside with cutting and bank; a gravel pit excavated into the cutting was probably a source of materials for construction	Canal & River Trust	Scheduled	Fair
106	Bryn-ceirch Bridge (36) NPRN405863	SJ 25506 41365	Original arched masonry bridge	Canal & River Trust	Listed	Good
107	Plâs-isaf culvert (99) NPRN406679	SJ 25269 41505	Masonry culvert under the canal	Canal & River Trust	Scheduled	-
108	Plâs-isaf Bridge (37) NPRN405861	SJ 25257 41511	Original arched masonry bridge with unusually wide brick arch to improve manoeuvrability and visibility at a curve	Canal & River Trust	Listed	Fair / Poor
109	Trevor Limestone Railway wharf NPRN406607	SJ 25201 41553	Wharf with a railway siding at the foot of a gravity-operated incline from Trevor Hall Wood Quarry, superseded in the late nineteenth century by the Plâs-ifan inclined railway	Canal & River Trust	Scheduled	Fair / poor
110	Plâs-isaf limekilns and wharf NPRN406611	SJ 25151 41562	Site of a wharf and canal-side limekilns using road and canal transport, serving as an earthwork	Canal & River Trust and private	In Setting	Poor
111	Bryn-Howel boat-turning basin NPRN406606	SJ 25027 41684	Natural indent in the hillside developed as a basin for turning boats, serving Plâs-ifan limestone wharf	Canal & River Trust	Scheduled	Fair / Moderate
112	Bryn-Howel Cutting (39) NPRN406605	SJ 24969 41786	Short, small cutting on the hill side of the canal	Canal & River Trust	Scheduled	Fair
113	Bryn-Howel Bridge NPRN406021	SJ 24965 41769	Typical arched canal bridge with stop plank grooves	Denbighshire CC	Listed	Fair

Ref No.	Feature	Grid Reference	Description	Ownership	Protection	Condition (2017)
114	Bryn-Howel boat-house NPRN85085	SJ 24942 41842	Edwardian brick pleasure-boat house for the adjacent mansion of J.C. Edwards of the terracotta works at Trefynant Trevor	private	In Setting	Poor
114A	New Site added	SJ24937 41842	Gateway adjacent to canal, brick and stone arch in grounds of Bryn Howell close to the Boat House, 2 nd ed OS map shows path leading to this point from the house	-	-	Fair
115	Bryn-Howel railway bridge (39) NPRN405862	SJ 24896 41927	Bridge for the Vale of Llangollen Railway, originally a steep-girder bridge by Telford's former assistant, Thomas Brassey; deck replaced in reinforced concrete	Private	In Setting	Fair / Poor
116	Plâs-Ifan Limestone Railway wharf NPRN406675	SJ 24812 42020	Wharf for a limestone railway from Trevor Hall Wood Quarry, superseding that to the canal at Plâs-ifan	Canal & River Trust	Scheduled	Fair / Poor
117	Plâs-Ifan outlet sluice (13) NPRN406677	SJ 24797 42030	Sluice to drain the canal for maintenance	Canal & River Trust	Scheduled	Fair
117A	New Site Added	SJ24809 42027	Limekiln, discussed but shown on 1st ed OS	?	-	Poor
118	Plâs-Ifan Culvert (100) NPRN405860	SJ 24784 42007	Stone-arched culvert taking a stream under the canal	Canal & River Trust	Scheduled	Structure Fair Pitching Poor
119	Plâs-Ifan Embankment NPRN406675	SJ 24633 42129	Embankment on the valley-side of the canal, partially re-built	Canal & River Trust	Scheduled	Fair
120	Plâs-Ifan Bridge (40) and stop-plank shelter NPRN405859/406676	SJ 24719 42088	Original masonry bridge incorporating a road diversion 394ft (120m) from the east to lessen the gradients; stop-plank grooves and roofed shelter for stop planks	Denbighshire CC (Bridge) Canal & River Trust	Listed	Fair

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121	Sun Trevor Embankment (26) and site of breach NPRN406674/406657	SJ 23821 42477	Considerable embankment on the valley-side of the canal; site of a serious early breach (at SJ 2389942460) which demonstrated the need for re-lining works on mountainside sections of channel	Canal & River Trust	Scheduled	Fair
122	Trevor / Plâs-Ifan railway wharf NPRN406716	SJ 24373 42277	Wharf for the limestone railway from Trevor Quarry	Canal & River Trust	Scheduled	Fair
123	Sun Trevor limestone railway wharf NPRN406655-6	SJ 24082 42380	Wharf for the limestone railway from Trevor Quarry	Canal & River Trust	Scheduled	Fair
124	Sun Trevor Bridge (41) NPRN34762	SJ 24061 42369	Original arched masonry bridge incorporating a second, smaller arch to the north for the Trevor limestone railway; stop-plank grooves	Canal & River Trust	Listed	Fair
125	Wenffrwd culvert (101), and embankment NPRN406537	SJ 23664 42539	Masonry culvert and embankment	Canal & River Trust	Scheduled	Good
126	Wenffrwd outlet sluice (14) NPRN406536	SJ 23655 42538	Outlet to drain the canal to the adjacent culvert for maintenance	Canal & River Trust	Scheduled	Fair
127	Wenffrwd Bridge (42) NPRN405858	SJ 23650 42550	Modern concrete road bridge	Denbighshire CC	In Setting	Fair
128	Llanddyn Cottage NPRN406538	SJ 23131 42583	Lengthman's house, representing the increasing level of organisation of canal maintenance	Private (Sold by Canal & River Trust in 2012)	In Setting	Good

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129	Llanddyn Bridge (43) and stop-plank store NPRN405857/406612	SJ 23115 42584	Original arched masonry bridge; stop plank grooves and small timber-built store for stop planks	Private Canal & River Trust	Listed Scheduled	Good
130	Llanddyn Culvert (102) NPRN406544	SJ 23097 42584	Masonry culvert to take a stream under the canal	Canal & River Trust	Scheduled	Fair
131	Llanddyn Lift Bridge (44) NPRN495856	SJ 22777 42327	Lift bridge of traditional form for a low-level crossing, with hydraulic operation, and stop-plank grooves	Canal & River Trust	In Setting	Good
132	Wern-isaf Rock Walls cutting and embankment and culvert 103 NPRN405855/406670-3	SJ 22308 42082	Rock cutting on the hill-side, the deepest on the canal, and a large embankment on the valley-side with frequent stop-plank grooves to close off water in the event of a breach; masonry culvert to take a stream under the canal	Canal & River Trust	Scheduled	Fair / Good
133	Upper Dee Flannel Mills water intake NPRN406589	SJ 21801 42162	Water intake under the canal towing path to a textile mill powered by canal water, now converted to secondary uses	Water Intake - Canal & River Trust Mill - Private	Scheduled	Poor
134	Siambr-wen stream culvert (104) NPRN406669	SJ 21693 42190	Typical masonry culvert taking a stream under the canal	Canal & River Trust	Scheduled Conservation Area	Fair
135A		SJ21644220	Two buildings adjoining tow path, one named Manore one of which is marked on 1st ed OS, both on 2nd ed.	-	-	Good
135	Wharf Cottage NPRN405852	SJ 21547 42247	Typical wharfinger's cottage of stone and brick, built into the retaining wall of the canal owing to the difficult terrain	private	Listed Conservation Area	Fair

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136	Siambr-wen Bridge (45) NPRN405851	SJ 21522 42274	Twentieth-century replacement of an earlier bridge; stop-plank grooves	DCC	Conservation Area	Poor / Fair
137	Llangollen Wharf and warehouse NPRN406587	SJ 21489 42268	Public town wharf and warehouse, stone-built with a brick extension, for the general goods trade on the canal	Canal & River Trust	Listed Conservation Area	Fair
138	Llangollen turning hole NPRN406587	SJ 21337 42391	Original turning hole now used as part of a mooring basin	Canal & River Trust	Scheduled	Fair / Good
138A			New canoe access point to canal	Canal & River Trust	-	Good
139	Pen-y-ddol cutting (40) and embankment (27) NPRN406668	SJ 21124 42609	Cutting on the hill-side and an embankment on the valley-side, exemplifying the engineering of the Llangollen Branch	Canal & River Trust	Scheduled	Fair
140	Pen-y-ddol Bridge (46) NPRN405849	SJ 21077 42637	Original arched masonry bridge	Canal & River Trust	Listed	Fair
141	Penddol culvert NPRN406668	SJ 20976 42839	Typical masonry culvert taking a stream under the canal, now silted	Canal & River Trust	Scheduled	-
142	Tower stream culvert (106) NPRN406545	SJ 20976 42843	Typical masonry culvert taking a stream under the canal	Canal & River Trust	Scheduled	Fair
143	Tower Bridge (47) NPRN405845	SJ 20943 42989	Concrete-decked road bridge	Denbighshire CC	In Setting	Fair
144	Tower bridge Cutting (41) NPRN406659	SJ 20931 43053	Hill-slope cutting exemplifying the engineering works needed for the Llangollen Branch	Canal & River Trust	Scheduled	Fair

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145	Pentrefelin Bridge (48) NPRN43125	SJ 20729 43601	Typical original arched masonry bridge; stop-plank grooves	Private?	Listed	Poor / Fair
146	Site of Pentrefelin Slate Mill railway bridge NPRN406658	SJ 20543 43635	Site of a lift or swing-bridge for a railway crossing the canal to take slate to the slab mill from the quarries	Canal & River Trust	Scheduled	Fair
147	Afon Eglwyseg Aqueduct, Pentrefelin NPRN405843	SJ 20539 43639	Masonry aqueduct of traditional design and a causeway embankment supported by long masonry retaining walls	Canal & River Trust	Scheduled	Fair
148	Pentre-felin Corn Mill culvert (107) NPRN24892	SJ 20515 43635	Culvert under the canal for the tail-race of Pentre-felin Corn Mill, indicating the canal engineers' provisions for the pre-existing water economy	Canal & River Trust	Scheduled	-
149	Pentre-felin outlet sluice (15) NPRN405840	SJ 20362 43558	Deep sluice set in masonry wing-walls through the substantial retaining bank carrying the canal above the River Dee	Canal & River Trust	Scheduled	Poor / Fair
150	Ty [^] Craig limekilns NPRN406586	SJ 20244 43500	Bank of four limekilns set into the river bank to be charged with coal and limestone from the canal	private	In Setting	Poor / Fair
151	Ty [^] Craig stop-lock NPRN405842	SJ 20176 43479	Masonry abutments flanking a narrowing of the canal, formerly housing a gate to restrict boats from entering the feeder watercourse	Canal & River Trust	Scheduled	Poor / Fair
152	feeder watercourse formation NPRN406724	SJ20176 43479- SJ19588 43283	Watercourse leading from the navigable section of the Llangollen branch to Horseshoe Falls, 0.4 miles (0.66km) long	Canal & River Trust	Scheduled	Good
153	Ty [^] Craig limekiln- manager's house and kiln ramp NPRN406584	SJ 20183 43458	House for limekiln manager and a ramp down to the drawing-holes of kilns; demonstrating the coal and lime trade on the canal	private	In Setting	Fair

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154	Ty^ Craig Bridge (48A) NPRN405841	SJ 20149 43454	Smaller variant of Telford's standard arched bridge abutted directly to the rock face, without a towing-path as the watercourse was not intended for regular navigation	Denbighshire CC	Listed	Poor / Fair
155	Canal Cottage, Llantysilio NPRN406583	SJ 20031 43393	Lengthman's cottage purchased by British Waterways in 1947 to house maintenance workers	Private	In Setting	Fair / Good
156	Chain Bridge rock cutting and retaining wall NPRN405886	SJ 19862 43270	Rock cutting into valley side and a retaining wall above River Dee	Canal & River Trust	Scheduled	Fair
157	Llantysilio Footbridge (49) NPRN406546	SJ 19897 43286	High-level steel footbridge giving access to Horseshoe Falls as part of the long-established use of the watercourse and weir for leisure and amenity	Private	In Setting	Poor
158	Chain Bridge Wharf NPRN406718/406719	SJ 19871 43260	Location of an early nineteenth-century wharf at the canal's head of navigation and a weighbridge for lime and coal with probable belowground remains	Canal & River Trust (Cutting only) and private (Car park and Hotel Wharf)	Scheduled (part)	Poor
159	Chain Bridge, Llantysilio NPRN24054	SJ 19868 43224	Suspension footbridge re-using chains from an earlier suspension bridge by Telford, probably made by William Hazeldine at Plas Kynaston Forge	Llangollen Town Council (and possibly still Llantysilio Community Council although plan is for Llangollen to take over)	In Setting	Good

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160	Chain Bridge Hotel western footbridge NPRN406601	SJ19811 43232	Footbridge	private	In Setting	Poor
161	King's Bridge Viaduct (49A) NPRN405839/43123	SJ 19772 43235	Five-arched masonry road viaduct crossing the River Dee and the canal in a visually impressive grouping, demonstrating the commonplace use of large multi-span structures a century after the canal	Denbighshire CC	Listed	Fair / Poor
161A	New canoe access on canal		New canoe access steps put in just upstream from Meter House. Engineering brick with pitched slate infill	-	-	Good
162	Horseshoe Falls mess, maintenance hut and stop-plank shelter NPRN405730/406585	SJ 19622 43258	Maintenance hut and mess room building of typical late nineteenth century design with a substantial, gabled timber structure for storing planks to stop the canal in the event of a breach	Canal & River Trust	In Setting	Fair / Poor
163	Horseshoe Falls meter house NPRN405729	SJ 19612 43279	Fine, dressed-stone building for the water measuring gauge added as part of the secondary use of the canal for domestic water supply	Canal & River Trust	In Setting	Fair
164	Horseshoe Falls footbridge NPRN406717	SJ 19604 43280	Footbridge crossing the feeder watercourse	Private	In Setting	Poor
165	Horseshoe Falls overflow sluice and bridge NPRN406610	SJ19593 43274	Overflow and sluice for water management, crossed by a footbridge	Canal & River Trust	Scheduled	Poor
166	Horseshoe Falls intake gate and footbridge NPRN406725	SJ19588 43283	Sluice taking water form Horseshoe Falls into the feeder watercourse and later footbridge	Canal & River Trust	Scheduled	Poor

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167	Horseshoe Falls weir NPRN403685	SJ 19560 43345	Elegant, curved weir with a cast iron curb supplying water to the whole canal, representative of water management and the innovative use of cast iron	Canal & River Trust	Listed Scheduled	Fair
168	Land around Horseshoe Falls	SJ 19560 43345	Land around Horseshoe Falls of importance to its visual setting	Private	In Setting	Good

