Appendices

Appendix 1: Facts and figures about the World Heritage Site

When did the area become a WHS and how big is it?	In 1986 Fountains Abbey & Studley Royal was designated a World Heritage Site. Its title on the World Heritage List is 'Studley Royal Park including the ruins of Fountains Abbey World Heritage Site'. The boundaries were largely drawn to reflect the land in National Trust ownership at that time. The World Heritage Site is 822 acres (333 hectares).
Administrative areas	The Fountains Abbey and Studley Royal World Heritage Site lies in the North Yorkshire Council area. The Fountains Abbey and Studley Royal World Heritage Site is also within the boundary of the Nidderdale Area of Outstanding Natural Beauty.
Rivers	The River Skell flows through the valley from the South-West feeding the formal ponds, canals and cascades that form the central features of the water garden before exiting in the direction of Ripon.
Farmland	The estate also includes an extensive deer park, which contains a large deer population consisting of three different species; these are Sika, Red and Fallow deer. There are also three tenanted pastures totalling 90 acres of farmland.
Public rights of way	The Studley Royal Deer Park including Mackershaw and the Seven Bridges Valley is designated as public access land. Each year we estimate that 150,000 visitors come just to enjoy this free area of the estate and the many walks through it.
Nature conservation	Four areas of the World Heritage Site are designated Sites Important to Nature Conservation (SINC's). The World Heritage Site also lies within the boundary of the Nidderdale Area of Outstanding Natural Beauty.
Heritage designations	Fountains Abbey and Studley Royal Estate is a designated UNESCO World Heritage Site. A buffer zone for the WHS was approved by the UNESCO World Heritage Committee in 2012. The site has one Scheduled Ancient Monument (the abbey ruins); eight Grade I listed buildings; eight Grade II* listed buildings and 38 Grade II listed buildings. In addition to this the estate is listed on the Register of Historic Parks and Gardens of Grade I Special Historic Interest. The village of Studley Roger which lies just outside the WHS is a Conservation Area.
People	There are currently 90 members of permanent full and part time staff employed by the National Trust at Fountains Abbey & Studley Royal with an additional 25 members of staff working flexibly during our peak seasons. Almost 400 people volunteer across 28 different teams.
Visitors	On average, over 400,000 people visit Fountains Abbey and Studley Royal Water Gardens each year (426,000 in 2022) with an estimated 150,000 additional people visiting the Deer Park. This makes the estate one of the most visited 'pay-for-entry' sites of the National Trust and one of the most popular historic sites to visit in Yorkshire. The National Trust segments visitors into nine core 'user-groups'. The segmentation separates visitors into different groups based on people's values and helps site managers to identify who uses their sites and how they can improve opportunities and increase enjoyment. Detailed segmentation research at Fountains Abbey & Studley Royal identified that the site is most prominently visited by people who value 'Harmony and Connection' (people who are positive and confident, adventurous and curious about people and history who also love being active in nature), people who value 'Roots and Respect' (people who are reserved and dutiful, love nature and wildlife, cherish family time and childhood memories), people who value 'Tradition and Duty' (people who are traditional and settled, passionate about British history, who like spending time in nature and visiting beautiful places) and people who value 'Curiosity and Equality' (people who are inquisitive and liberal, keen to learn about various topics from arts to politics and who want kids to explore, and have fun in nature).

Appendix 2: A Short history of the site

Introduction

The Fountains Abbey and Studley Royal estate has a special and significant history. This section looks at the history of the lives of the Cistercians at Fountains Abbey, the medieval origins of the Studley Royal estate and the development of the designed landscape under the Aislabies. It also introduces the families who have owned the Fountains and Studley Royal estates over time, the history of tourism on the site and the land use history of the estate and associated sites.

Fountains Abbey and Studley Royal – a brief history

The present Fountains Abbey and Studley Royal estate only became a single entity in 1767. In the medieval period, it was comprised of three distinct components:

- Fountains Abbey monastic estate, both inside the precinct wall boundary and some adjoining lands;
- Mackershaw Wood, a fragment of the pre-Conquest estate of the Archbishop of York;
- The village of Studlei Magna in the present deer park, which became the Studley Royal estate in the 16th century.

Fountains Abbey, founded in 1132 in unpromising circumstances, soon became one of the richest and largest Cistercian abbeys in Britain. Its wealth was largely built on the wool trade and vast donated or purchased land holdings. It was dissolved in 1539 and sold the following year to Sir Richard Gresham, a London merchant, who recouped some of the purchase price by selling the abbey's building materials. In 1597, Sir Stephen Proctor acquired the Fountains estate and built Fountains Hall (1597–1604), partly with stone from the monastic complex. The Messenger family owned the Fountains estate from 1627 to 1767, when it was purchased by William Aislabie and combined with Studley Royal. Mackershaw was a managed woodland let by the lord of the manor at Studley from the 14th century until 1730, when it was purchased by John Aislabie and incorporated in Studley Royal designed landscape.

The Studley Royal estate was owned by the Mallory family from 1452 until 1667, when George Aislabie acquired it through marriage to Mary Mallory. The deer park, probably of medieval origins, is first recorded in 1577 and has been progressively extended. Studley Park, which was landscaped with formal avenues in the later 17th century by George Aislabie, retained its original manor house until 1748, when it was largely rebuilt. The associated landscape garden built by the Aislabies between 1670 and 1781 made Studley Royal nationally famous; it was even referred to as 'The Wonder of the North'. Built on a magnificent scale from the outset, the design – contrived by the Aislabies themselves – understood and incorporated every major new garden fashion as it emerged. The resulting gardened landscape revolved around eye-catchers, contrived vistas and carefully designed water features and contrasts, all taking full advantage of the topography of the Skell valley and the presence of the abbey ruins. Studley Royal became an outstanding illustration of the successive landscape fashions of the 18th century, and was a frequent and important stop on cultural tours of the north of England.

Ever-growing numbers of visitors inspired many of the changes carried out by subsequent owners. The Marquis of Ripon took over the estate in 1859. In 1870, he commissioned the renowned architect William Burges to design St Mary's Church (which was built between 1871 and 1878) at the western end of the main vista across the park, aligned with Ripon Minster. Although subsequent owners did not alter much of the Aislabies' original design, they slowly withdrew from its extremities whilst the lack of maintenance gradually resulted in some landscape features suffering irreversible decay. However, the abbey ruins were well cared for, especially during the second half of the 19th century, when major excavations and research took place. In 1946, Studley Royal House was destroyed by fire. The historic Studley Estate was broken up when sold by its last private owner, Henry Vyner, in 1966. It was then that the High Stables, Wheatbriggs House and the Pheasantries were sold into separate ownership, while the gardens, abbey and parkland were acquired by West Riding County Council. There was a huge backlog of conservation work to be addressed. The National Trust acquired the estate in 1983 from North Yorkshire County Council (successor to the West Riding County Council). Since then, a programme of restoration and conservation has been under way in the Water Garden, Fountains Hall, and, in partnership with English Heritage, at the abbey mill (opened to the public in 2001) and to the monastic precinct wall. The abbey ruins have been in the guardianship of the State since 1966 and their consolidation has progressed since that date.

Fountains Abbey from foundation to dissolution

Fountains Abbey was founded in 1132 by a group of 13 dissident Benedictine monks who left St Mary's Abbey in York in search of a more austere religious way of life. The abbey they founded became known as 'Sancta Maria de Fontibus' (Charter of Confirmation by Henry I, 1133) and joined the reformist Cistercian order as a daughter house of Clairvaux in France. The Cistercian ideals of austerity, simplicity

and solitude fulfilled the aspirations of the founders of Fountains Abbey.

After a near collapse in the early years (before the foundling abbey acquired sufficient resources to support itself) the period 1135–1265 marked the rapid expansion and growing economic influence of Fountains Abbey. Its first simple timber buildings were lost to arson in 1146, but rebuilding in stone was already in hand when the fire was set, one of a series of redesigns in the course of the 12th century necessitated by increasing numbers of monks and lay-brothers. The current extent of the buildings complex was reached by the early 13th century, although modification and replacement of buildings continued throughout the abbey's life. Through gifts of land, Fountains Abbey progressively extended its land holdings throughout the north of England, building much of its wealth initially on the wool trade. By 1150, it had founded eight daughter houses (foundations of 12 monks and a prior sent out from Fountains Abbey). There was a progressive economic and spiritual decline in the following centuries, ended by a period of recovery under abbots Greenwell and Huby in the late 15th and early 16th centuries. Lay-brothers were replaced by tenant farmers and servants, while the monastery was further extended, more richly decorated, more comfortably furnished and the unique Huby's Tower built.

In 1539, during the Dissolution of the Monasteries, Fountains Abbey was one of the richest Cistercian foundations in Britain. Henry VIII sequestrated the abbey's valuables, and then contemplated schemes for the creation of a new northern diocese, one of which included using the former Fountains Abbey estate as the financial base. The eventual selection of Chester as the new cathedral freed up Fountains Abbey for private sale. In 1540, it was sold to Sir Richard Gresham, a London merchant, who partially demolished it for the sale and reuse of its building materials.

The medieval origins of Studley Royal

Settlements in the general area of the medieval village of Studley appear in surveys of the Archbishop of York's lands ('Stodlege', c.1030) and in the Domesday Survey ('Stollai' and 'Estollai') of 1086. The first reference to the name 'Studley Royal' does not appear until 1537.

The village of Studlei Magna, established in the late 12th century or early 13th century, dwindled to just a few tenancies by 1360.

Development on this unpromising site in the north of the present park, far from water supplies, was prompted by the construction of a road linking Ripon to the West Gate of the abbey. The village seems to have had some unusually large houses, one of which was excavated in 1989–1991, while traces of more humble dwellings have been found in the fields of Swanley Grange and in the park.

Most of the present deer park was cultivated using ridge and furrow techniques, to improve drainage and soil fertility. The earthworks of this system are still visible extending over approximately 300 acres.

The manor house remained occupied long after the village became extinct, particularly by the Mallory family between 1452 and 1667. Studley then came into the ownership of George Aislabie, following his marriage to Mary Mallory and the death of the last male Mallory.

The origins of the deer park are not well documented. Thomas de Bourne, lord of the manor, obtained hunting rights over rabbits and small mammals (the right of Free Warren) in 1343. The first documentation for a deer park dates from 1577. Red deer are native in this area.

Development and decay of the Aislabies' designed landscape

Studley's earliest landscaping took place in the Deer Park, adopting the 17th century fashion for formal avenues. The main avenue and Studley Gate (framing the view of Ripon Cathedral) were probably created in 1670–1675 for George Aislabie. George's early demise slowed development works, but they were again in mind soon after John Aislabie's inheritance in 1693. Studley Royal House — the former medieval manor house — was renovated by John Aislabie after a fire in 1716 and then further modified (twice) by his son William in 1748–1752 and 1758–1762. It was modernised again by the Marquis of Ripon in the 1860s. Fire completely destroyed the mansion in 1946. The extensive stable block (by Roger Morris, advised by Colen Campbell) built in 1728–1732 remains.

In the 18th century a group of the gentry, nobility and rising monied classes experiencing economic prosperity and political power developed and landscaped 'Pleasure Gardens' to extend their enjoyment of their great estates and demonstrate their wealth and taste to others. In keeping with this fashion, from 1718 to 1742, John Aislabie developed the 'Water Garden' along the River Skell: the canal was created and the valley bottom levelled. Ponds, buildings, statues, formal hedges, new plantations and walks followed, probably in three main phases of development. The formal style of the valley bottom contrasts with the naturalistic treatment of the wooded slopes. The new garden buildings and the abbey ruins are used as eye-catchers and create a complex network of contrived vistas, taking full advantage of the topography of the Skell valley and of the presence of the abbey ruins. How Hill tower was the first eye-catcher, built in 1718.

From 1742 to 1781, William Aislabie extended his father's work. Following new fashions, he created a sublime landscape and an unusually early Chinese landscape in the Valley of Seven Bridges. It was a distinctive feature of Studley that William added to the early works rather than remove them as many of his contemporaries did. When he ran out of space to expand at Studley, his solution was to develop gardens on other family properties, at Laver Banks and especially at Hackfall. Chronologically interwoven, and physically linked, the three sites should really be considered to be parts of one and the same designed landscape. In 1767 William succeeded, where his father had failed, in buying the Fountains Abbey estate. He landscaped and consolidated the abbey ruins, which became an integral part of the Pleasure Gardens. He also

extended the designed landscape, in a naturalistic style, a further mile upstream of the abbey, to Spa Gill wood.

The year of William's death, 1781, marks the effective 'high water mark' for the designed landscape's extent and sophistication. The 18th century landscape was little altered by subsequent owners, who mainly respected and only modestly enhanced the original design by their additions — Surprise View, De Grey's Walk and St Mary's Church. Meanwhile many features disappeared and the maintained part of the grounds contracted through lack of maintenance, especially in Chinese Wood, Spa Gill, How Hill and in the area behind the Banqueting House. A number of decaying buildings and features from the late 18th century were removed by the first Marquis of Ripon c.1870. The lost features include the bathing house, the Belvedere, the Tent on Tent Hill, the Chinese building, lost vistas and statuary.

The families who owned the estate

The Mallory family, medieval owners of Studley for two centuries, rose to local and national significance under Elizabeth I. The family provided Ripon's first Members of Parliament in the 17th century.

George Aislabie, although of much humbler stock (he was a yeoman farmer's son), joined gentry circles after inheriting £20,000 from the family of his former employer. He was therefore able to seek the hand of Mary Mallory (her family having been impoverished by the Civil War) and ultimately secured mastery of the Studley Royal estate. He was killed in a duel in 1676, leaving 12 children. John Aislabie, his third son, was MP for Ripon from 1695 until 1721, Chancellor of the Exchequer in 1718–1720, and was expelled from Parliament after the South Sea Bubble scandal. John's son William took the family seat in the Commons in 1721 and remained an MP until his death in 1781. The Aislabie name died out with William, the estate being inherited by his daughter (Elizabeth Allanson) and later a grand-daughter (Elizabeth Sophia Lawrence) before the line was extinguished in 1845.

Studley then passed to Earl de Grey and then to his nephew the first Marquis of Ripon in 1859. The Marquis was one of the elder statesmen of his time — Viceroy of India in 1880–1884, and a freemason of the highest rank. He married his cousin, Henrietta Vyner, from Newby Hall. His son, the second Marquis, was a celebrated shot who developed the Studley Royal pheasant shoot and received Edward VII and George V at Studley on several occasions.

The early owners of the Fountains estate were not well-known public figures — especially the Messenger family. Their Catholic faith, royalist persuasion in the Civil War, and often dubious liquidity encouraged 'quiet living' during the 140 years that the Messengers owned the Fountains estate between 1627 and 1767.

The history of tourism at Fountains Abbey and Studley Royal

The earliest 'tourists' at Fountains Abbey were antiquarians, first recorded being drawn to the abbey ruins in the 1660s (although a connection between Fountains Abbey and the Yorkshire version of the Robin Hood legend may have origins with medieval visitors). Studley Royal landscape garden added a further attraction in the 18th century, and the estate soon became an essential feature of the 'tour of the north'.

Visitor numbers were boosted to unusually high levels in the late 18th century and during the 19th century by the proximity of the growing Spa at Harrogate. Studley Royal was ideally placed to provide an outing for those 'taking the waters'. The relatively early arrival of the railway in Ripon and Harrogate in 1848 made the estate accessible to the populations of the Yorkshire, Lancashire (and latterly Teesside) manufacturing towns. The earliest known school visit is recorded in 1851, with first reference to the availability of food for visitors on the site of the present Studley Café in 1854. As early as 1853, a one shilling entrance fee, professional guided tours and estate regulations were in place. At the inauguration of St Mary's Church in 1878, the estate is said to have welcomed about 30,000 visitors. Few rural attractions can have rivalled such visitor numbers at that time. The first floodlighting of the abbey in 1932 was initiated by the Vyners to commemorate the 800th anniversary of the foundation of the abbey; its popularity eventually leading to the permanent installation of lighting, which permitted evening visiting.

After the National Trust acquired the estate in 1983, a visitor centre was built in 1992 to help reduce the congestion of the historic area, and deal with visitor numbers which had grown to around 300,000 a year.

Land use history

The monks claimed they built Fountains Abbey in a wilderness: in reality the landscape around the Skell valley was probably already well managed in the 11th century. Small settlements (Swanley, Morker, Studley) practised low intensity agriculture, exploiting surrounding woodland and scrub. Gradually the abbey established more intensive agriculture across its home grange farms.

At Studley Royal, the deer park was progressively extended, and land use gradually changed from mixed agricultural to grazed parkland between the 16th and 18th centuries. As the woodland resource became scarcer, the Archbishop of York jealously guarded his woods at Mackershaw. Only in the Skell valley, too rough and wet for agricultural development, did scrub land survive. The Aislabies incorporated the existing trees in the valley scrub in their designed landscape and planted both new and native species, in particular many yew trees. Mackershaw was annexed as a further deer park in the 1740s, while the Pleasure Garden was extended to the abbey precincts and beyond after 1767.

At the end of the 19th century, a pheasant shoot was developed in the grounds, and a golf course existed in the deer park from 1891 to 1927. The pheasant shoot continued, and the shooting interest was sold into private hands when the Studley Royal estate was broken up in 1966.

Appendix 3: Planning and policy framework for Fountains Abbey and Studley Royal World Heritage Site

There are a range of policy and management frameworks which apply to the Fountains Abbey and Studley Royal World Heritage Site. This section does not attempt to be exhaustive but only captures some of the key strategic policies. Much of the relevant legislation will apply to specific elements or assets within the site (such as protected species or archaeology), and no attempt is made to record all elements here.

National Policy

National planning policy direction is provided by the National Planning Policy Framework (NPPF) National Planning Policy Framework – Guidance – GOV.UK (www.gov.uk) which sets out the Government's planning policies for England and how these are expected to be applied. It is supported by the National Planning Policy Guidance (NPPG), a web based resource which brings together current planning policy guidance Planning practice guidance – GOV.UK (www.gov.uk)

The NPPF states that the purpose of the planning system is to contribute to the achievement of sustainable development. Achieving sustainable development means that the planning system has three overarching objectives; economic, social and environmental, which are interdependent and need to be pursued in mutually supportive ways (Paragraph 8). To protect and enhance our natural, built and historic environment is enshrined in the environmental objective (Paragraph 8c). This is expanded upon principally in Section 16 Conserving and enhancing the historic environment (Paragraphs 189–208), but policies giving effect to this objective also appear elsewhere in the NPPF. Paragraphs 189, 200, 206 and 207 in particular make reference to World Heritage Sites, which are internationally recognised to be of Outstanding Universal Value. It states that these assets are an irreplaceable resource and should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations (Paragraph 189). Paragraph 199 states that when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be).

Further legislative framework for the historic environment, relevant to Fountains Abbey and Studley Royal, is provided by:

- the Town and Country Planning Act 1990
- the Planning (Listed Buildings and Conservation Areas) Act 1990, which provides specific protection for buildings and areas of special architectural or historic interest
- the Ancient Monuments and Archaeological Areas Act 1979, which provides specific protection for scheduled monuments

Any decisions relating to listed buildings and their setting must address the statutory considerations of the Planning (Listed Buildings and Conservation Areas) Act 1990 (see in particular sections 16, 66 and 72) as well as satisfying the relevant policies within the National Planning Policy Framework and the relevant Local Plan.

Local Policy

The Local Planning Authority for Fountains Abbey and Studley Royal is North Yorkshire Council (formed 1 April 2023). Formerly this area was covered by Harrogate Borough Council. North Yorkshire Council is required to produce a new Local Plan with policies for the area by 1 April 2028, but until then the Statutory Development Plan comprises The Harrogate District Local Plan (2014 – 2035) which was adopted by the Harrogate Borough Council on 4 March 2020 and the Ripon Neighbourhood Plan to 2030 (Made 2019). Local Planning Guidance includes the Heritage Management Supplementary Planning Document (SPD) 2014 which provides a strategy for the management of the historic environment in the District. The current version of the Local Plan can be viewed at Harrogate district local plan | North Yorkshire Council

The National Trust and Historic England, worked closely with Harrogate Borough Council in the preparation of the draft Local Plan and the adopted plan contains policies for the protection of the World Heritage and its setting. It identifies the buffer zone around the property to give an added layer of protection to the World

Heritage Site (map 8.1). The buffer zone forms part of the setting of the World Heritage Site.

Policy HP2 refers specifically to development within the World Heritage Site.

Policy HP2 – Heritage Assets

Proposals for development that would affect heritage assets (designated and non-designated) will be determined in accordance with national planning policy.

Applicants should:

a) Ensure that proposals affecting a heritage asset, or its setting, protect or enhance those features which contribute to its special architectural or historic interest;

b) Ensure that any development that would have an impact on the Studley Royal Park including the ruins of Fountains Abbey World Heritage Site, or its setting, will conserve and, where appropriate, enhance those elements that contribute towards its outstanding universal value. Protection of key views and vistas to and from the world heritage site will be protected and there will be a strong presumption against tall or very large buildings within the world heritage site or its setting. Within the Studley Royal Park including the ruins of Fountains Abbey World Heritage Site Buffer Zone, applicants will be required to demonstrate that their scheme will not harm those elements which contribute to the outstanding universal value of the world heritage site. Development proposals likely to have an impact on the world heritage site, or its setting, will be permitted only where it can be demonstrated that the scheme will converse elements which contribute towards its outstanding universal value. Development that would cause substantial harm to the significance of the world heritage site will be allowed only in wholly exceptional circumstances;

c) Ensure that proposals affecting a conservation area protect and, where appropriate, enhance those elements that have been identified as making a positive contribution to the character and special architectural or historic interest of the area and its setting;

d) Ensure that any development that would affect a registered park and garden should not harm those elements which contribute to its layout, design, character, appearance or setting (including any key views from or towards the landscape), or prejudice its future restoration;

e) Ensure proposals affecting a registered battlefield would not harm its historic, archaeological or landscape interest or prejudice any potential for interpretation;

f) Ensure that proposals affecting a scheduled monument or other archaeological site of national importance conserve those elements which contribute to their archaeological interest and their setting;

g) Development affecting archaeological sites of less than national importance should conserve those elements which contribute to their significance in line with the importance of the remains.

Harm to elements which contribute to the significance of a designated heritage asset or archaeological site of national importance will be permitted only where this is clearly justified and outweighed by the public benefits of the proposal. Substantial harm or total loss to the significance of such assets will be permitted only in exceptional circumstances.

Proposals which would remove, harm or undermine the significance of a non-designated heritage asset will be permitted only where the benefits are considered sufficient to outweigh the harm.

Schemes that help to ensure a sustainable future for the district's heritage assets, especially those identified as being at greatest risk of loss or decay, will be supported.

The supporting text at paragraphs 8.27 to 8.29 recognises that Studley Royal Park including the Ruins of Fountains Abbey World Heritage Site is a place of Outstanding Universal Value, which is defined as having a cultural and natural significance so exceptional that it transcends national boundaries.

The Statement of Outstanding Universal Value, which includes the authenticity and integrity of the World Heritage Site, alongside the Fountains Abbey and Studley Royal World Heritage Site Management Plan are confirmed as key material considerations in determining planning applications and appeals.

Within World Heritage Sites permitted development rights are restricted by National Policy (classed as Article 2.3 land in the General Permitted Development Order) and World Heritage Sites are also classified as "sensitive areas" for the purposes of the Environmental Impact Assessment Regulations. The Local Plan advises a landscape and visual impact assessment may be required to accompany certain applications for development. The buffer zone designation does not bring any additional planning controls, but it is a material consideration in the determination of applications and appeals.

The overarching vision for the plan is

Vision Harrogate district will be a progressive, vibrant place to live, work and visit. The district will have a sustainable and resilient economy that features new, higher value jobs. The district's high quality built and natural environment continues to be a defining feature.

The plan recognises the importance of visitor attractions in the District that draw national and international visitors to the area, including the World Heritage Site (justification paragraph 4.36). Protecting existing tourist facilities, whilst encouraging investment in existing and new tourist facilities and supporting infrastructure is, recognised as vital to the continuing success of this sector.

Policies within the plan protect the natural environment of the District; manage climate change and flood risk (CC1 &CC3) as well as promoting increased biodiversity across the District (NE3) with protection to trees and woodland (NE7). The protection of landscape character is addressed in NE4.

Policy NE4: Landscape Character
Proposals that will protect, enhance or restore the landscape character of Harrogate district for its own intrinsic beauty and for its benefit to the economic, environmental and social well-being of the district will be supported.

Policy GS6: Nidderdale Area of Outstanding Natural Beauty (AONB)
The natural beauty and special qualities of the Nidderdale Area of Outstanding Natural Beauty (AONB) will be conserved and enhanced. Proposals will only be supported where they:
a) Do not detract from the natural beauty and special qualities of the AONB and its setting;
b) Contribute to the delivery of the Nidderdale AONB Management Plan objectives;
c) Support the economic, social and environmental well-being of the area or support the understanding and enjoyment of the area.

In 2014, the Council approved the Heritage Management Guidance as a Supplementary Planning Document. This document remains current and it contains the direction for management of the historic environment, explaining the threats and identifying the key priorities for the Council to ensure that the vision and objectives for the District's historic environment are achieved and maintained in the long term. It contains a number of references to the World Heritage Site, including recognition of the buffer zone. The key principles below are all taken from the Heritage Management Guidance. The full Harrogate heritage management guidance supplementary planning document is available at: www.northyorks.gov.uk

General principles for development that would affect the World Heritage Site including development in its Buffer Zone:
a) Development that would cause substantial harm to the significance of the World Heritage Site (its Outstanding Universal Value) will be allowed only in wholly exceptional circumstances;
b) Development proposals that are likely to have an impact upon the World Heritage Site or its setting will be permitted only where it can be demonstrated that the scheme will conserve those elements, which contribute towards its Outstanding Universal Value;
c) New development within the World Heritage Site or affecting its setting should incorporate the highest standard of landscape and architectural design;
d) Key views and vistas will be protected. There will be a strong presumption against tall or very large buildings within the World Heritage Site or its visual setting;
e) Development within the World Heritage Site Buffer Zone that would adversely affect the significance of the World Heritage Site, and particularly affecting key views, will be allowed only in exceptional circumstances;

f) Development proposals within the Buffer Zone will be permitted only where it can be demonstrated that the scheme will conserve those elements, which contribute towards the Outstanding Universal Value of the World Heritage Site.

General principles for development that would affect a Scheduled Ancient Monument:

a) Scheduled Ancient Monuments will be conserved and, where appropriate, enhanced;

b) Development will not be allowed that would destroy Scheduled Ancient Monuments or their settings;

c) When considering applications for development on or affecting the setting of a monument, the overriding consideration will be the effect on the significance of the heritage asset.

General principles for development that would affect a Listed Building:

a) The total or substantial demolition of a listed building will be permitted only in exceptional circumstances;

b) Proposals that would cause substantial loss to the significance of a listed building will be permitted only where this harm is outweighed by the public benefits of the proposal;

c) Listed Buildings will be conserved and, where appropriate, enhanced. Loss of any significance should be minimised, and will be permitted only where any harm is justified by the public benefits of the proposal.

d) New development affecting a listed building or its setting should incorporate high quality design.

General principles for development that would affect a Registered Historic Park and Garden:

a) Development should not detract from the enjoyment, layout, design, character, appearance or setting of that landscape, cause harm to key views from or towards these landscapes, or where appropriate prejudice their future restoration.

General principles for development in the AONB:

a) Within the Nidderdale AONB, priority will be given to the conservation of the natural beauty of the landscape;

b) Development proposals will be expected to demonstrate high standards of design, which should reflect local distinctiveness and, where appropriate, mitigation to ensure the continued protection of the special qualities of the AONB.

Other relevant planning advice is contained within the Harrogate District Landscape Character Assessment Supplementary Planning Guidance (2004). The Landscape Character Areas that apply to this location are Area 30 (Vale Fringe south of River Skell and Skell Corridor) and Area 44 (Aldfield to Studley Vale Fringe Farmland) which includes the World Heritage Site itself.

In November 2014 the Council adopted the Green Infrastructure Supplementary Planning Document (SPD). This seeks to enhance the natural and built environment of the District by helping applicants and developers ensure that proposals for development make the most of opportunities to improve existing and create new green infrastructure and will be used as a material consideration when considering planning applications.

Harrogate green infrastructure supplementary planning document (www.northyorks.gov.uk)

The Nidderdale AONB Management Plan (2019–24) is a high-level strategy covering a five year timeframe that provides a framework for action designed to protect the AONB's special qualities.

Relevant aims include:

- Aim HH1 – Support innovative proposals for sustainable future use of historic buildings and structures where this does not cause unacceptable harm to the asset or the wider landscape
- Aim HH2 – Support initiatives designed to increase awareness and understanding of archaeology and the historic environment
- Aim L1 – Increase understanding of AONB special qualities
- Aim L2 – Maintain and enhance the AONBs natural beauty

Nidderdale_AONB_2019-2024_Management_Plan_Web.pdf (nidderdaleaonb.org.uk)

The Ripon City Plan

Following a positive referendum, the Ripon neighbourhood plan to 2030 was made part of the Statutory Development Plan for the Harrogate district on 10th April 2019.

The City vision identifies the city's attractive countryside setting, including its waterways, the Studley Royal and Fountains Abbey World Heritage Site and neighbouring villages, which will be protected and enhanced to maintain its distinctiveness.

Relevant policy includes:

Policy A.3 (Skyline) — Proposals for development which are on previously undeveloped land or which are generally of greater height than neighbouring buildings or structures will be required to be supported by an assessment of their impact upon the city's skyline.

The supporting text at paragraphs 5.2.10 and 5.2.11 recognises that there are key views across the city towards How Hill which is near to Fountains Abbey and toward Blois Hall Farm. The policy seeks to protect the places named but not to prevent additional features within the skyline that are of the highest quality. It also incorporates the intention of the World Heritage Site "buffer zone".

Ripon Neighbourhood Plan to 2030 (harrogate.gov.uk)

Appendix 4: List of World Heritage Site stakeholders

Steering Group

Tony Earnshaw	Assistant Director of Operations (National Trust)
Justin Scully	General Manager at Fountains Abbey & Studley Royal (National Trust)
Sarah France	WHS Coordinator (National Trust)
Keith Emerick	Inspector of Ancient Monuments (Historic England)
Mark Douglas	Senior Properties Curator (English Heritage Trust)
Peter Goodchild	Representative (ICOMOS-UK)
Liz Small	Growth and Heritage Services Manager (North Yorkshire Council)
Anne Sims	Principal Conservation Officer (North Yorkshire Council)

National Trust Representatives

Lara Jones	World Heritage Assistant
Rebecca Evans	Visitor Operations and Experiences Manager
Alexa Vernon	Marketing and External Affairs Manager
Helen Fawbert	Project Curator
Louisa Scott	Facilities and Support Services Manager (climate change & environmental performance)
Jonathan Wallis	Cultural Heritage Curator
Natasha Rowlands	Planning Adviser
Mark Newman	Archaeological Consultant
Stephen Morley	Nature Conservation Advisor
Nabil Abbas	Skell Valley Project Manager
Josie Campbell	Senior Project Co-ordinator, Skell Valley Project
Nina Kingham	Visitor Experience Officer

National Agencies and Organisations

UK National Commission for UNESCO
World Heritage UK
Natural England
Environment Agency

Local Authority Representatives

Iain Mann	Nidderdale AONB
Sarah Kettlewell	Nidderdale AONB

Interest Groups

Yorkshire Gardens Trust
The Georgian Group
Ripon Civic Society
Yorkshire Dales Rivers Trust
Ripon Business Improvement District (Ripon BID)
Ripon Disability Forum
Ripon Museums Trust
Ripon Together
Destination Harrogate
Orb Community Arts
Harrogate and Dales Association

Local Community representatives

Sid Hawke and Linda Hawke	Mayor and Mayoress of Ripon
Victoria Oldham	The Worshipful Mayor of Harrogate
Derrick Slater	Fountains Abbey (including Aldfield, Lindrick with Studley Royal & Fountains) Parish Council
David Taylor	Grantley, Sawley, Skelding and Eavestone & Fountains Parish Council
Dean John Dobson	Ripon Cathedral
Jeremy Dunford	Friends of Hell Wath

Educational representatives

Representatives from local schools, colleges and universities

Other WHS representatives

World Heritage Site Coordinator, Durham WHS
World Heritage Officer, Saltaire WHS

Appendix 5: Geodiversity Audit

Review of the geodiversity of Studley Royal and Fountains Abbey World Heritage Site Jonathan Larwood, Senior Specialist – Palaeontology, Landscape and Geodiversity, Natural England	**Completed 13th November 2014**
Purpose	Fountains Abbey and Studley Royal World Heritage Site is centred around a meander in the River Skell. Exposures of Carboniferous sandstone are uncomfortably overlain by Permian Magnesian Limestone. There is a cover of Pleistocene gravel and clay with associated late Pleistocene landforms. The geological influence at Studley Royal and Fountains Abbey is both implicit and explicit within the natural, designed and built elements of the Site's landscape. Whilst the Site's geodiversity is not part of the Outstanding Universal Value (OUV) it is an attribute that is clearly associated with OUV and strongly influences the distinctiveness of the designed landscape at Fountains Abbey and Studley Royal. Understanding geodiversity is an important part of understanding Fountains and Studley Royal Estate, its construction and the design of its landscapes. This is emphasised by the Statement of Outstanding Universal Value (SOUV) which states that 'the layout of the gardens is determined by the form of the natural landscape, rather than being imposed upon it.' The current World Heritage Site Management Plan (2009–2014) sets out to better understand the role geology has played in the design of the property's landscape (Action K6) and to survey and map the Estate's geology (Action N2). In response, this report provides a review of the geodiversity of the Studley Royal and Fountains Abbey World Heritage Site and the influence and role it has played in the location, construction and design of the Abbey and Studley Royal Gardens.
Background	Studley Royal and Fountains Abbey is located on the River Skell where it cuts through the Permian Magnesian Limestone escarpment which runs from the Durham Coast to Nottingham. The steep sided River Skell Valley was cut during the Late Pleistocene when the river was swollen with glacial melt water, cutting down through the Magnesian Limestone into underlying Upper Carboniferous sandstones. The natural shaping of this landscape and the geological resources that it has provided have been central to the establishment of the Abbey and the design of the Studley Royal landscape. The deep and remote valley with the presence of fresh water provided a tranquil, safe and productive location for the establishment of the Cistercian Abbey. Magnesian Limestone and Carboniferous sandstone were key materials in the building of the Abbey with other resources being brought in from further afield. The later development of the Aislabies designed landscape is strongly influenced by the natural landforms and flow of the River Skell, and today the Estate's habitats and species are influenced by the underlying contrasts between Magnesain Limestone, sandstone and extensive glacial tills. This report explores these themes and the connections with geodiversity and considers the opportunities for linking geodiversity into our understanding of the site, how it is presented and managed.

Geodiversity of Studley Royal and Fountains Abbey World Heritage Site				
	Age	**Description**	**Some links and connections**	**Management**
Bedrock	**Permian** **255 mya**	The Permian Magnesian Limestone was deposited approximately 255 million years ago, in a shallow sea known as the Zechstein, which encompassed the present day North Sea Basin and covered much of NW Europe. Climatically similar to the present day Bahamas (and during the Permian at a similar latitude) the Zechstein Sea was subject to periodic exporation and replenishment and on its margins the development of the Permian Zechstein Reef which was the primary source of the lime-rich sediments which today forms the thick sequence of Magnesian Limestone. Lower Permian Magnesian Limestone (Cadeby Formation) crops out on the eastern side of the site with exposures visible on the steep slopes and paths to the east of the Crescent and Moon Ponds and along the gorge sides of the Seven Bridges valley (Photos 1 & 2). The basal Lower Magnesian Limestone unconformity with the underlying carboniferous, is noted to cross the River Skell near the Moon Ponds at grid ref. 280 686. The Lower Magnesian Limestone at Fountains and Studley is typically a cream to grey coloured dolomitic limestone. It is thinly bedded and jointed with a blocky appearance. There is evidence of contemporary Permian bioturbation (burrowing), in fallen blocks near the path to the immediate north of the Moon Ponds.	**Garden and parkland** The Permian Magnesian Limestone has had a strong influence on the character and design of the Studley Royal landscape. This is most explicit in the Seven Bridges Valley which inspired Aislabie's Chinese landscape gardens. Here the Magnesian Limestone forms the steep gorge sides and a series of bridges cross cut across the Skell as it flows down the gorge. Little modification of the underlying landscape was necessary to achieve the desired affect though the river has a 75m long bypass tunnel constructed to avoid it disappearing down a large swallow hole. Some additional work was undertaken by Aislabie in Seven Bridges Valley to make the river more serpentine in character and cascades constructed to create torrents. The Valley was known as 'Serpent Valley' by 1741. Natural outcrops of Magnesian Limestone occur on the steep wooded slopes to the east of the Crescent and Moon Ponds. The exposures have been incorporated into the sides of paths and part inspired the construction of the Serpentine tunnel which emulates the bedded nature of the limestone in its construction.	The most substantial Magnesian Limestone exposures are found in the Seven Bridges Valley. Here there is concern about collapse of some of the sections, however, this is not an issue in terms of maintaining the Magnesian Limestone sections and no management intervention is needed. There is some minor degradation of the Limestone sections on the garden slopes beneath the Octagon Tower with blocks rolling onto the path. This is natural degradation and difficult to slow down. A low retaining wall has been built to catch rolling blocks and visual inspection of section with occasional removal of precarious blocks (though taking care not to increase instability) is recommended. For completeness it would be useful to undertake a more detailed survey and mapping of Lower Magnesian outcrops (within the site and its wider buffer zone). Examine more fully the vegetation change – sandstone vs limestone – can this be picked out and provide an indication of changing geology where rocks aren't visible?

			Buildings The Magnesian Limestone was locally quarried (the nearest significant quarries are at Ripon) and used in the construction of local buildings most notably the Abbey, Fountains Hall & Studley Royal. In the Abbey Magnesian Limestone is used in a variety of ways. It is used as decorative stone as it relatively easy to carve – it is found forming the more ornate door lintels and posts, inscriptions and statues (Photo 3). Huby's Tower, constructed around 1500, is built from Magnesian Limestone (Photo 5). Once exposed to the elements (when the roof was removed from the Abbey) the Magnesian Limestone has weathered quite rapidly and much of the more ornate detail has been diminished **Habitats and wildlife** Thinner soils associated with Magnesian Limestone. Magnesian Limestone grassland flora – for example the Banqueting House lawn. In the Seven Bridges Valley the opened joints, minor hollows and collapses in the Magnesian Limestone are likely to offer potential bat roosts/potential hibernacula. Also, unstable slopes and associated bare soils and rock may offer a number of potential habitats/substrates for invertebrates.	

			Industry Magnesian Limestone quarried locally (within the buffer zone of the World Heritage Site) otherwise sourced from Cadeby Quarry (which was within the ownership of the estate). Lime kilns are present within the estate.	
	Carboniferous **c. 315 mya**	Approximately 315 million years old the thick Carboniferous sandstone and gritstones exposed at Fountains and Studley were deposited by an extensive river and delta system flowing from high ground (Askrigg Block) to the north. This was a near equatorial climate in an area that was subjected to periodic rise in sea level (reflecting a global change in sea level and more local disturbance associated with a mountain building phase known as the Hercynian Orogeny). At Fountains and Studley the Lower Plompton Grit (which belongs to the Middle Carboniferous Kinderscoutian Stage) forms prominent exposures on either side of the River Skell, to the north and north east of Fountains Abbey and unconformably beneath the Lower Magnesian Limestone on the southern part of the slopes to the east of the Crescent and Moon Ponds. Most notable is the high quarried cliff to the north of the Abbey which exposes up to 7m of cross-bedded (indicating current direction) fine to course grained, pebbly sandstone with a colour variation from yellow to red (Photo 4).	**Garden and parkland** The western part of the Site is dominated by underlying Carboniferous sandstones which form the steep river valley sides and the high ground to the north. **Buildings** The Lower Plompton Grit has been widely used in the construction of the Abbey and associated buildings. This fine to course grained sandstone gives the Abbey its characteristic red colour. Examining the cut faces of the Grit building stone provides a close-up view of the typical cross-bedding and the rounded to sub-angular quartz grains which vary in size from 1–10mm (Photo 6). **Industry** The Lower Plompton Grit was quarried on-site as the main source of building stone for Fountains Abbey. The vertical faces to the north of the Abbey represent the final quarry faces and provide evidence of roof lines which were set into the quarry face (possibly quarry men dwellings).	Best exposures of Lower Plompton Grit are in the disused quarry faces to the North of the Abbey. These are becoming overgrown, particularly with the encroachment of ivy from above. Increased vegetation management here would open up these sections and has a wider link to the quarrying history of the Abbey. For completeness it would be useful to undertake a more detailed survey and mapping of Carboniferous outcrops (within the site and its wider buffer zone). Examine more fully the vegetation change – sandstone vs limestone – can this be picked out and provide an indication of changing geology where rocks aren't visible?

		The underlying Addlethorpe Grit is inferred to cross the Skell valley in the vicinity of Fountains Abbey (at 2717 6821) – it is not clear whether any exposures are visible. Towards the end of the Carboniferous the Hercynian mountain building phase (a consequence of the coming together of two continents) lead to widespread uplift and a period dominated by erosion rather than deposition. Relative sea level rise in the Permian lead to the area being inundated and eventually the unconformable deposition of the Permian Magnesian Limestone over the Carboniferous landscape.	**Habitats and wildlife** The riverside slopes are dominated by ancient woodland, predominantly oak, elm and lime.	
Superficial	**Devensian** **18000–14000 years ago**	Much of the higher ground is mantled by Quaternary sands, gravels and clays (belonging to the Vale or York Formation). These are largely associated with the late Devensian cold phase (the last 'ice age') and glacial and periglacial environments from 18000 to 14000 years ago. During this period glacial advance from the Lake District covered the area extending down into Lincolnshire. On the estate glacial till (boulder clay) dominates the wider Park to the north and northeast with isolated patches of sand and gravel associated with former river terrace deposits. Advance and retreat of ice strongly influenced the course of rivers such as the Nidd, Ure and Swale, diverting them southwards and creating glacial diversion gorges which may in part account for the deepened gorge of the Skell.	Dominant influence on soils and subsequent land-use (agriculture) within the wider estate.	

Landforms and processes	**Devensian – present**	There are a number of landforms associated with the Devensian and more recent evolution of the landscape. Dry valleys – in the deer park The Dale forms a northwest-southeast dry valley with a deposit of sands and gravels overlying glacial till (Photo 7). It's likely that this formed during a periglacial environment (similar to modern tundra) with the ground deeply frozen (and impermeable) and allowing the development of a small river. With the onset of warmer conditions the ground has thawed and become permeable – no longer supporting surface flow and leaving the dry valley. River Skell valley and Seven Bridges Valley – the Skell forms a relatively steep sided meander which is likely to reflect both glacial diversion of the Skell to a new course during the Devensian (Photo 8), a significantly larger river fed by glacial melt water and continued post glacial deepening of the river as a consequence of local uplift. The Seven Bridges Valley gorge has a similar origin. A steep sided limestone gorge has been formed with swallow holes down which the Skell flows to re-emerge near to Ripon. Minor faulting, jointing and a number of collapsed hollows are visible in the gorge sections. The Skell drains from Nidderdale to the west and flows via Ripon into the Ure. Run-off and management of the drainage has a strong influence on the rate of silting at Fountains and control of flooding through Fountains Abbey and Studley Royal and into Ripon.	**Garden and parkland** The River Skell is the most influential natural element at Fountains Abbey and Studley Royal. It has provided a basis for the original settlement cutting a deep and sheltered gorge. It is a source of water for drinking (together with local springs) and was used to establish Fountains Mill. It has provided the conditions (and possibly inspiration) for the construction of the water gardens which, in their design, incorporate the widening and deepening of the river meander the shape of which is arguably mirrored in the design of the Crescent and Moon Ponds. The limestone gorge it cuts has provided the backdrop for the 'Chinese' Seven Bridges Valley. Since the establishment of the mill and the growth of the Abbey the course of the Skell has been controlled and canalised. Whilst there was an understanding of the need to alleviate flooding in the design of the garden, the controlled flow of the river restricts the ability to dissipate energy during floods and risks both damage to the World Heritage Site and flooding. Also notable is the bridged Dale dry valley in the deer park and view point provided by the glacial How Hill to the south. The Ice House – the ice house (located to the north of the Seven Bridges Valley) has been constructed on an area of high ground in the glacial till above the water table avoiding the risk of water flow through the ice house.	River management is critical to the future of the Fountains Abbey both in terms of flooding (risk of increase with environmental change) and silt build-up. The challenge is to balance maintenance of the Sites Outstanding Universal Value, reducing levels of siltation, accommodating the likelihood of raised water levels/flooding and managing the Skell within its wider catchment (upstream run off from Nidderdale and downstream into Ripon). The critical point here is that management decisions should be taken with an understanding, and in the context of, the Estate's geodiversity, in particular the functioning of the Skell and its catchment. Undertake a survey of landforms within the Site and its wider buffer zone. Consider the development of a soil management plan conserving the characteristic soil profiles of the Estate.

		How Hill – within the wider landscape of the World Heritage Site How Hill to the south is interpreted as a moraine-like glacial mound – a deposit of glacial gravel left by a retreating glacier. Springs and flushes – natural springs and flushes on the estate are likely to be linked to Quaternary sands and gravels overlying glacial till. Soils – there are a variety of soils within the Estate reflecting its history of cultivation and in many areas more minimal intervention. A separate soil survey has been undertaken identifying 4 soil types and considering the condition and soils erosion within the estate.	**Industry** The Skell powered the mill which has been central to the subsistence and income of the Abbey.	
Geology from further afield	**Nidderdale Marble** **Early Carboniferous**	Nidderdale Marble is a dark crinoidal early Carboniferous limestone used as a decorative stone for pillars within the Abbey Church (Photo 6). It was also carved to make the large marble stoup, formerly located in the Cloister and now on display in the Mill. Fountains Hall also has examples of decorative Nidderdale Marble. The marble was quarried at Blayshaw Quarry near Lofthouse in Nidderdale and its use is thought to be restricted to Fountains Abbey and Hall (though it is speculated that the steps at St George's Chapel, Windsor, may be Nidderdale marble). Now exposed to the elements the Nidderdale Marble columns are heavily weathered.		Develop a short guide or information notes for volunteers to the fabric of the buildings of the estate. Explore whether there any other decorative stones associated with the Abbey perhaps sourced from other Cistercian monasteries?

	Imported materials within Fountains Abbey, garden and park	Westmorland Slate – main roof material, an Ordovician (450–400 million years old) volcanic ash (Borrowdale Volcanic Group) from Cumbria. Widely used as a green tinged slate. York stone – Upper Carboniferous river-lain sandstone used for flooring flagstones within the Abbey. Hackfall tufa – used in the construction of the grotto and sourced from Hackfall Wood in Nidderdale. Deposited by modern springs saturated in calcium carbonate. Bricks and tiles – bricks and tiles mainly used for flooring (eg medieval church), bricks also seen in Aislabie's Kitchen. Probably made from either local Carboniferous mudstones or glacial till. Metal – evidence of lead smelting and iron working (remains of slag) at Kitchen Bank. Lead likely to have been sourced from Nidderdale and used for roofing and stained glass leading. Stained glass (utilising sand and wood ash) is likely to have been imported from Northern France.	These materials were available during the early construction of the Abbey. They demonstrate the use of more local resources from Nidderdale for example but also the wealth and reach of the Abbey estate and its ability to bring slates in from Cumbria.	
	St Mary's Church	This late 19th century medieval gothic church contains an unprecedented diversity of widely sourced building and decorative stone.	There is a striking and visual geological story to be told here that connects across Europe and to the ancient world. This is also an illustration of the changing nature and accessibility (to the wealthy anyway) of global building stone which didn't exist when the Abbey was constructed.	This is an underplayed geological asset and warrants its own geological guide.

		The exterior walls (Photo 9) are constructed from Catraig Stone (Upper Follifoot Grit) – a Carboniferous sandstone from the nearby Spa Gill Wood, the roof is made from Lake District green slates from the Borrowdale Volcanic Group and the finely carved porch of Lower Magnesian Limestone from the nearby Morcar Quarry (Photo 10). Internally stone is sourced from across Europe, North Africa and the USA (the font is made from Tennessee Marble) (Photo 11). Around 20 different decorative stones are used and include a full range of sedimentary, igneous and metamorphic rocks with colours including cream, black, white, red, green, orange and purple. A number of the marbles are sourced from quarries first exploited by ancient Egyptian, Greek and Roman civilisations.		

Next steps/recommendations	Develop a simple management plan for the Site's geodiversity, this could include: – Some vegetation and stability management – Survey of the link between vegetation and underlying geology – More detailed geological survey within the Site and buffer zone – Identifying sources of building stone for repairs – Develop a soil conservation and management plan Develop a strategy for integrating geology into the way the story of Fountains Abbey is told and presented. The influence of water, the use of raw materials and the visibility of geology in the landscape and its influence on design are possible broad themes. Provide training for volunteers and develop information notes for volunteers. Develop a geological guide for St Mary's Church (based on unpublished notes see below). Establish links with local geology groups – recruit new volunteers. The Leeds Geological Association occasionally includes Fountains Abbey and Studley Royal within its field visit programme. The West Yorkshire Geology Trust is a very active local geoconservation group. Explore more fully the link between Fountains' archaeology (including industrial) and geodiversity. Explore potential links with other locations (particularly in Trust ownership) in the Region specifically connecting with geodiversity (eg the Carboniferous sandstone Tors of nearby Brimham Rocks). Explore links with other World Heritage Sites within the Trust's care (particularly cultural) encouraging integration of geodiversity as part of the 'fabric' of World Heritage – use Fountains as an example. Extend this to other World Heritage Site and the story they tell. For example, Durham Cathedral and Castle and Creswell Crags (on the WHS Tentative List) are both located and associated with late Pleistocene cut river valleys/gorges: the incised meander and peninsular of Durham and the Magnesian Limestone Gorge of Creswell Crags to the south.

Further reading	British Geological Survey, Harrogate Sheet 62 Blacker, J.G. & Mitchell, M., 1998. The use of Nidderdale Marble and other crinoidal limestones in Fountains Abbey, N. Yorks. 28pp Cooper, A.H., & Burgess, I.C, 1993. Geology of the country around Harrogate. Memoir for 1:50 000 geological sheet 62 (England and Wales. Hilary Taylor Associates, 2009. Fountains Abbey and Studley Royal Soil Assessment, AMEC Earth and Environmental Report Murray Mitchell, 2005. The building and decorative stones of St Mary's Church, Studley Royal (unpublished notes for volunteers and staff)

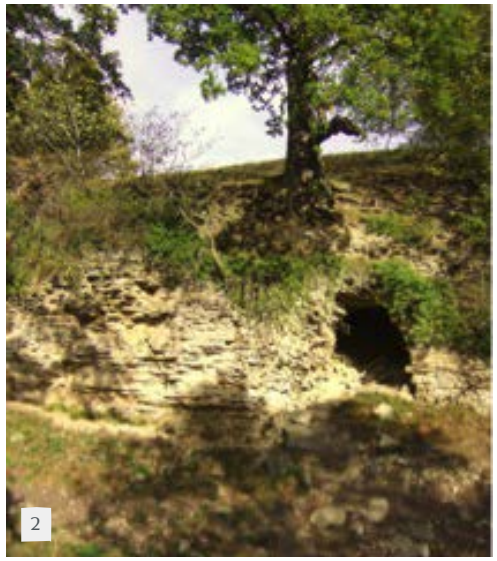
Photographs

Permian

Photographs 1 & 2: Lower Magnesian Limestone (Cadeby Formation) exposed in Seven Bridges Vallley

Photograph 3: Weathered carved door Magnesian Limestone lintel and inscription at base of Huby's Tower


1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3

Carboniferous

Photograph 4: Carboniferous sandstone (Lower Plompton Grit) exposed to the north of the Abbey ruins.

Photograph 5: Fountains Abbey ruins built from Carboniferous sandstone, note yellow Magnesian Limestone of Huby's Tower

Photograph 6: Weathered column of Carboniferous Nidderdale crinoidal limestone


4


5


6

Devensian – landforms

Photograph 7: The Dale dry valley in the Deer Park

Photograph 8: 'Surprise View' showing the incised and modified meander of the River Skell

St Mary's Church

Photograph 9 St Mary's Chuch built from Carboniferous Catraig Stone with finely carved Lower Magnesian Limestone porch (detail Photograph 10)

Photogrpah 11 Interior decorative stone sourced from Europe, North Afriac and USA. Ripon Tomb: figures White Carrara Marble from Italy, columns and slab Verde Antico, a serpentinite breccia from Greece, chest alabaster from Notting-Derby area.