

THE FORTH BRIDGE WORLD HERITAGE SITE

DRAFT MANAGEMENT PLAN 2025-2035



United Nations
Educational, Scientific and
Cultural Organization



The Forth Bridge
inscribed on the World
Heritage List in 2015

Contents

Contents

Contents	2
Introduction to Draft Management Plan 2025-2035	3
1 Introduction	4
1.1 The World Heritage Convention.....	4
1.2 The World Heritage Property	4
1.3 Protection and Management Requirements.....	4
1.4 Tourism and the World Heritage Site	9
1.5 Purpose and Status of the Management Plan.....	13
1.6 Engagement in the Management Planning Process	15
1.7 Related Plans	16
1.8 Lifespan and Review Schedule for the Management Plan.....	18
2. The Property Boundaries and Setting	19
2.1 Property Boundary	19
2.2 Setting	20
3. Significance and Outstanding Universal Value	22
3.1 What is World Heritage and Why Does it Matter?	22
3.2 Outstanding Universal Value.....	23
3.3 Statement of Outstanding Universal Value	24
3.4 Attributes of Outstanding Universal Value	25
3.5 Values of the Property	28
3.6 Designated Assets	35
3.7 Legislative and Planning System	39
4 Current Management	48
4.1 Ownership	48
4.2 Governance	48
4.3 Stakeholders	49
5. Analysis of Current Factors Affecting the Property	51
5.1 Climate Profile.....	51
5.2 Maintenance and Preservation	54
5.3 Risk Preparedness	56
5.4 State of Conservation of Attributes.....	57
6. Management Vision and Objectives.....	59
6.1 Vision	59
6.2 Pre-draft Consultation Feedback on Vision	59
6.3 Objectives	60
APPENDICES	63



Introduction to Draft Management Plan 2025-2035

The Forth Bridges Forum partners prepared the Nomination Document and accompanying Management Plan for the Forth Bridge's successful inscription as a UNESCO World Heritage Site in 2015.

One of the requirements for World Heritage Sites is to maintain a current Management Plan and this document contains the draft Management Plan 2025-2035.

It is fitting that this draft plan has been prepared during 2025 when Britain is marking the 200th anniversary of the birth of the modern railway in a series of [Railway 200](#) events and activities.

This draft plan has been written during 2025 by a Working Group formed from the members of the Forth Bridges Forum. Members of the public and stakeholders gave their input during a pre-draft engagement exercise in June 2025. Progress has been monitored by the Forth Bridge World Heritage Management Group and the Forth Bridges Forum.

The accompanying appendices include a look back at the actions completed from the original Management Plan during the last 10 years, results of the pre-draft consultation and a proposed action plan 2025- 2029, which brings the Action Plan in line with Network Rail's funding cycle.

The final plan will reflect the results of the consultation on this draft, and a final Management Plan will be prepared and submitted to UNESCO in 2026.



1 Introduction

1.1 The World Heritage Convention

World Heritage encompasses the most exceptional cultural and natural treasures of humanity, recognised for their global significance by the United Nations Educational, Scientific and Cultural Organisation (UNESCO). These sites, selected for their unique qualities or exemplary status, represent shared heritage and belong to everyone. With over 1,000 sites worldwide, UNESCO oversees the World Heritage List, adding or removing locations based on strict criteria.

Member states, such as the UK, nominate sites for inscription following UNESCO's comprehensive guidelines. The overarching goal of the list is to identify, protect, conserve, and showcase the world's irreplaceable heritage. Each listed site must continuously demonstrate compliance with the obligations outlined in the World Heritage Convention, ensuring its value is preserved for future generations.

1.2 The World Heritage Property

The Forth Bridge, crossing the Forth estuary in Scotland, had the world's longest spans (541m) when it opened in 1890. It remains one of the greatest cantilever trussed bridges and continues to carry passengers and freight. Its distinctive industrial aesthetic is the result of a forthright and unadorned display of its structural components. Innovative in style, materials and scale, the Forth Bridge marks an important milestone in bridge design and construction during the period when railways came to dominate long-distance land travel.

1.3 Protection and Management Requirements

1.3.1 Partnership Management Agreement (PMA)

The Forth Bridge is listed at Category 'A' as a building of special architectural or historic interest. Its immediate surroundings are also protected by means of a suite of cultural and natural heritage designations.

The PMA is in place to help deliver a proportionate and consistent Listed Building Consent (LBC) process as part of Network Rail's management of the bridge.



The PMA sets out the works to the Forth Bridge that will require LBC and outlines the processes that are to be followed. It also states the type of works that can proceed without consent.

The agreement also covers: Pier Lighthouse, East and West Battery Piers in North Queensferry and the viewing area under the north cantilever. These are also Category A-listed, within the ownership of Network Rail and have been included as they form part of the same maintenance regime.

The PMA was last updated in January 2025 and involves the following members of the Steering Group: Network Rail, Historic Environment Scotland, Fife Council and City of Edinburgh Council.

Planning officers from these organisations meet annually to review a schedule of work submitted by Network Rail. This meeting also provides an opportunity for officers to discuss any planning related matters around the bridge, even if not directly relevant to the PMA.

1.3.2 Forth Bridges Forum

The Forth Bridges Forum is a collaborative management grouping established to ensure that local partners and stakeholders' interests remain core to and provide the strategic support of the three crossings of the River Forth at Queensferry. In addition, the Forum provides a mechanism for the collaboration and collective promotion of the Forth Bridge, Forth Road Bridge, Queensferry Crossing, and the surrounding environs, towns, and villages of the Forth Estuary.

The Forum is responsible for the World Heritage Inscription and the associated Management Plan obligations and provides the Coordinator role that is responsible for the overall management of the site.

The Forum is a collaborative management grouping and as such has no legal standing and is not an independent entity.

The core members of the Forum are at least one or more senior officials from each of the organisations listed below.



- City of Edinburgh Council
- Fife Council
- Historic Environment Scotland
- Network Rail
- Transport Scotland
 - Roads and Rail Directorates
 - Supported by the South East Scotland Trunk Road Unit Operating Company – currently BEAR Scotland
- VisitScotland
- West Lothian Council

Additional bodies, organisations, and stakeholders may be invited to join a Forum meeting(s) dependent on any specific workstreams which are required to be established or where specific discussion is required. For example, bus and train operators may be invited to the Forum to discuss measures to promote cross-Forth public transport.

The Forum is responsible for the following aspects;

- To support the Forth Bridge's World Heritage Inscription status and the coordination and review of the associated Management Plan. (The Forum is responsible for the implementation of the World Heritage Management Plan)
- To establish and oversee a strategic approach to exploring and implementing opportunities for the Forth Bridges to support local and regional tourism, economy, and communities.
- To engage with community groups on matters relating to the aims of this Forum.
- To promote the location of the bridges spanning the Firth of Forth as a unique engineering, tourism, and educational resource.
- To work with Council partners to explore and support schemes and measures to encourage an increase in cross-Forth active travel and sustainable public transport.
- To support the Scottish Government National Performance Framework and sustainability objectives and to provide any guidance and advice to local stakeholders.

The Forum will meet on a quarterly basis on dates to be agreed with any sub-groups meeting ahead of the main Forum meetings in time to provide reports for consideration at Forum meetings.

A quorum for any Forum meeting will require representative(s) from a minimum of five of the seven core members to be in attendance.

The Forum will be chaired by a senior representative from within the core organisations on an annual rotating basis, with each organisation serving a 12-month period from 01 January each calendar year.



Administration and secretarial support will be provided by staff from within the incumbent South East Scotland Trunk Road Unit Operating Company or equivalent under contract to Transport Scotland to ensure a consistent approach is always maintained.

The Terms of Reference for the Forum will be reviewed on an annual basis and agreed by the members of the Forum at the first meeting of the Forum each calendar year.

1.3.3 Forth Bridge World Heritage Management Group

After the Forth Bridge was inscribed as a World Heritage Site, the Forth Bridge World Heritage Nomination Steering Group was repurposed as the Forth Bridge World Heritage Management Group.

The Management Group coordinates the issues and actions relating to the wider stakeholders.

Membership of this group includes core Forum members and wider stakeholders.

Core Forum members are Fife Council, City of Edinburgh Council, West Lothian Council, VisitScotland, Historic Environment Scotland, Network Rail and Transport Scotland.

Additional stakeholders attending are BEAR Scotland (Transport Scotland's Road operating company for the two Forth road bridges), Crown Estate, North Queensferry Heritage Trust, the Briggers/Queensferry Heritage Trust, Queensferry History Group, Queensferry & District Community Council, North Queensferry Community Council and Kirkliston Community Council.

The Group has met quarterly since inscription and will be monitoring the production and delivery of the new Forth Bridge Management Plan and Action Plan. Historic Environment Scotland has resumed chairing this meeting. The Forth Bridges World Heritage and Tourism Lead* will present updates on the Management Plan and its Action Plan to this Group.



*For the purposes of this Management Plan, this role will be referred to as the more commonly used term within World Heritage Sites as World Heritage Coordinator, simplified to Coordinator.

1.3.4 Forth Bridges Area Tourism Group

The Forth Bridges Area Tourism Strategy 2019-2029 is managed by the Forth Bridges Tourism Group. Membership of this group is formed by relevant tourism and project managers from Fife Council, City of Edinburgh Council, West Lothian Council, VisitScotland, Historic Environment Scotland, Network Rail and Transport Scotland. The group has employed a Forth Bridges Area Tourism Strategy Manager on a contract basis since February 2021. This role was merged with the duties for the World Heritage Site in January 2025 to create a single post, Forth Bridges World Heritage and Tourism Lead (referred to in this Draft Plan as Coordinator).

The Tourism Strategy was reviewed mid-term in 2024, and a revised delivery plan was agreed for 2025-2029.

The Chair of this group rotates annually between Fife and City of Edinburgh Councils.

Section 1.4 covers details of the tourism strategy and metrics.

The Coordinator is tasked with including local tourism businesses and relevant groups in the area to deliver and benefit from the delivery plan actions. This has included:

- Collating valuable contributions from North Queensferry and South Queensferry history and heritage groups in developing material for the information panels on the Forth Bridges Trail.
- Digital support for a group of local artists who launched the Forth Bridges Creative Trail event during May 2025 and plan to repeat this in May 2026.
- Extensive website and social media content for local tourism businesses and events.
- Supporting local businesses and the CruiseForth welcome volunteers through briefings and social media activity.



- Communicating the Forth Bridges activities to local business associations, such as the Queensferry Business Group and Dunfermline and West Fife Local Tourism Association.

1.3.5 Forth Bridge Management Plan Working Group

The Working Group convened from January 2025 to prepare the consultation and update to the Management Plan and Action Plan.

The Coordinator chaired fortnightly meetings with members from Network Rail, Transport Scotland, Historic Environment Scotland, City of Edinburgh Council, Fife Council and VisitScotland. The Planning department at West Lothian Council was involved in reviewing the Planning section.

Regular meetings of the Working Group will be discontinued at the point of submission of the final Management Plan. The group will reconvene once per annum for a status update; in the event of the requirement for any significant or major interventions; to update the Action Plan in 2029; and for a mid-Plan review in 2031.

1.4 Tourism and the World Heritage Site

The Forth Bridge stands as an iconic symbol of Scotland's engineering heritage and attracts thousands of visitors each year, drawn by its UNESCO status and breathtaking views over the Firth of Forth. As interest in authentic, story-rich heritage experiences continues to grow, the surrounding areas of South Queensferry and North Queensferry are evolving as popular visitor destinations, offering viewpoints, interpretation, and sustainable tourism opportunities that celebrate the bridge's global significance.

1.4.1 Tourism Strategy



The Vision for the Forth Bridges Area Tourism Strategy 2019-2029 shows how interwoven the World Heritage Site is with the local visitor economy.

“By 2030 The Forth Bridges area will be recognised as a sustainable, high quality visitor destination, offering great customer service underpinned by an emotionally valued global brand.

This ambitious but deliverable vision underpins the specific strategic goals and activities identified to achieve it. The following three strategic outcomes – Creating a Visitor Destination; Offering a Warm Welcome to All; and Marketing the Destination are designed to achieve the vision along with the supporting theme of Looking After the Forth Bridges which encompasses the UNESCO requirements for the Forth Bridge World Heritage Site.”

1.4.2 Regional Visitor Economy and Culture

Edinburgh & South East Scotland’s *Regional Prosperity Framework* is one of eight regional economic strategies across Scotland, and contains the strong positioning of the *Visitor Economy & Culture* as one of the priority areas of focus. This has led to the development of a Regional Visitor Economy Partnership. The East and South East Scotland Regional Visitor Economy Partnership is also developing a plan to position the region as a world-class year-round destination. The plan aligns with the Regional Prosperity Framework’s objectives, ensuring that tourism growth supports local businesses, communities, and the environment.

Four strategic component projects were identified, aimed at fostering sustainable growth, improve visitor experiences, and support local communities.

Cultural Touring Framework

Cruise Passenger Management Plan

Cycle Tourism

Smart Data for Smarter Tourism



Collectively, these projects are designed to position Edinburgh and South East Scotland as a world-class, sustainable, and inclusive tourist destination.

The Forth Bridge is positioned to benefit from all these projects, and focus has initially been on the cruise passenger management plan.

1.4.3 Visitor Insights

The Forth Bridge World Heritage Site and setting have strong appeal to visitors.

VisitScotland's Scotland Visitor Survey 2023 shows that the following remain top motivators for choosing Scotland:

Reasons for choosing Scotland

#1 Scenery & Landscape

- 70% of respondents stated this as a key motivator for choosing Scotland.
- Similarly, 72% stated this as a key motivator for choosing Fife, with 70% for Edinburgh.

#2 History & Culture

- 48% of respondents stated this as a key motivator for choosing Scotland.
- Similarly, 48% stated this as a key motivator for choosing Fife, with 61% for Edinburgh.



Activities Undertaken/visited

#2 Viewed Architecture & Buildings

- 52% of visitors stated this as an activity undertaken in Scotland.
- Similarly, 28% stated this as an activity undertaken in Fife, with 57% for Edinburgh.

1.4.4 Quantifying tourism at the Forth Bridge

The Forth Bridge does not currently have a single measurement of visitor numbers and their economic impact. However, the following sources build a picture of significant numbers through visits to the regions, on cruise ships and via digital channels.

The Forth Bridge straddles two local authority areas, Fife Council and City of Edinburgh Council. While specific charity and anniversary event attendance is recorded (see Appendix E4), it has not been possible to utilise specific measurements of visitors to the Forth Bridge.

VisitScotland regional insights include key statistics for overnight tourism in these areas as below showing that the potential number of overnight visitors in the region exceeds 6 million per annum (Fife average 2022-2024, Edinburgh 2024).

Overnight Tourism by domestic and international visitors	Fife (average 2022-2024)	Edinburgh (2024)
Overnight visits	620 thousand	5.05 million
Total nights spent in accommodation	2.44 million	17.79 million
Total spend	£254 million	£2,565 million
Average overnight visitor spend	£412	£508



The employment and economic performance of tourism support 54,000 jobs in these two regions (2023) and over 2,100 tourism businesses (2024).

The unique location of the Forth Bridge on the Firth of Forth also supports significant cruise tourism through the nearby Port of Rosyth in Fife and at South Queensferry via tenders to the Hawes Pier beneath the Forth Bridge. The Edinburgh and South East Scotland regional visitor partnership commissioned a cruise passenger management study in 2024/25. This estimates the passenger capacity of cruise ships visiting these ports in the 2024 season was 21,990 in Rosyth and 123,300 in South Queensferry, total 145,290. The passengers on board these ships will all have enjoyed close views of the Forth Bridge during their journey to and time spent in the area.

Through the Forth Bridges tourism strategy, the Forth Bridges website and social media channels contain significant focus on visiting the area. Digital visitors to the Forth Bridges social media sites (Facebook, X, Instagram, Threads, TikTok) alone show a reach of over 7m per annum (12 months to end September 2025). The Forth Bridges Tourism Group partners also include popular content about the Forth Bridge.

Transport Scotland is reviewing available data through new footfall monitors at the north end of the Forth Road Bridge and on the viewing platform at South Queensferry. Further details will be supplied through the duration of the Management Plan.

1.4.5 World Heritage Site Management Plan and Tourism

The Plan objectives ([section 6.3](#)) and Action Plan (Appendix A) outline in more detail the importance of tourism at the Forth Bridge.

1.5 Purpose and Status of the Management Plan

The United Kingdom, as a signatory to the World Heritage Convention, has obligations



regarding the effective stewardship of World Heritage Sites. These obligations necessitate that each Site is supported by an appropriate management structure. These Plans are recognised as material considerations within the planning system. Adhering to the advice outlined in UNESCO's 'Operational Guidelines for the Implementation of the World Heritage Convention', Management Plans should undergo regular reviews, monitoring, evaluation, and updates.

The development of a Management Plan involves the amalgamation of all key partners to agree on a shared vision for the future of the site. The subsequent implementation of the Management Plan depends on the effective collaboration and commitment of these and other stakeholders to advance actions. The management of physical changes to the Forth Bridge is primarily addressed by the Partnership Management Agreement (PMA) between Network Rail, Historic Environment Scotland, City of Edinburgh Council and Fife Council; with the implementation of the Management Plan covered by the Forth Bridges Forum and Forth Bridge World Heritage Management Group.

The primary aim of a Management Plan is to guide the effective management of a World Heritage Site in a way that safeguards its unique character and ensures the preservation of its Outstanding Universal Value (OUV – see section [3.2](#)). This ensures targeted, site-specific management while demonstrating to UNESCO that robust mechanisms are in place for the site's long-term conservation.

The Forth Bridge World Heritage Site Management Plan provides a framework for protecting, enhancing, and promoting the site and its OUV. It outlines a shared purpose, values, and strategic objectives to guide decision-making by all stakeholders. Successful implementation depends on collaboration and commitment from all involved parties, with the plan serving as a cornerstone for detailed, long-term decision-making.

To maximise its impact, the Management Plan's values and objectives should align with and influence other local plans, strategies, and guidance. Covering a ten-year period (2025–2035), the plan will be reviewed and updated in line with UNESCO's guidance to reflect ongoing needs and long-term aspirations for the Forth Bridge. Some objectives extend beyond the plan's timeframe, underpinning the site's vision for the future.

The accompanying Action Plan 2025-2029 (Appendix A) outlines actions which will be the focus for the first half of the Management Plan, followed by a review in 2029 of the Action Plan to be agreed for the second period, 2030-2034, which will be in line with Network Rail's financial Control Periods.

This Management Plan is not intended to provide a full historical or physical analysis of the Forth Bridge but should be read alongside complementary documents: [The Forth Bridge Nomination for Inscription in the World Heritage List \(Historic Environment Scotland, 2014\)](#), with the bibliography 7.e therein, and [Management Plan \(2014\)](#).



1.6 Engagement in the Management Planning Process

A new role was created by Fife Council in January 2025 to work on behalf of the Forth Bridges Forum partners – Forth Bridges World Heritage and Tourism Lead. The purpose of this role is to deliver the Forth Bridges Area Tourism Strategy and Forth Bridge World Heritage Management Plan.

For the purposes of this Management Plan, this role will be referred to as the more commonly used term within World Heritage Sites as World Heritage Coordinator, simplified to Coordinator.

In January 2025, the Coordinator convened a Working Group from Forum partners' managers and officers. The core team comprised Fife Council (1), City of Edinburgh Council (1), Old New Towns Edinburgh (1), Historic Environment Scotland (1), Network Rail (3), Transport Scotland (1), and VisitScotland (1).

Meeting fortnightly, the Working Group reviewed the actions from the 2015 Management Plan, reviewed plans from other World Heritage Sites and the Historic England template to frame the outline for the new plan, identified stakeholders and how to engage with them, and agreed a timeline.

The Coordinator briefed the two local Community Councils, North Queensferry and Queensferry & District, in March 2025 about the upcoming review of the Management Plan.

The Forth Bridge World Heritage Management Group was consulted on the pre-draft engagement in May 2025, and the Forth Bridges Forum was updated in June 2025. Both assented to the direction taken.

An online engagement exercise was undertaken 2nd-30th June 2025 using Citizen Space hosted by Fife Council on behalf of the Forum partners. Stakeholders were informed of the engagement by direct email, a press release and through social media. Posters were made available for local community noticeboards with a QR code to link to the engagement.

There were many social media posts through the Forth Bridges, partners, and stakeholders' channels during June 2025.

There were 139 responses to the online survey, and a summary of this engagement can be found in Appendix F.

The Forth Bridge World Heritage Management Group discussed the findings of the questionnaire at a meeting on 14/8/25 and the draft plan on 15/10/25.

The Forth Bridges Forum considered the draft plan on 17/9/25.

Fife Council Councillors were issued a briefing note on 14/11/25 and a business bulletin is planned for the City of Edinburgh Councillors.

A further consultation on the draft plan is expected to begin in December 2025, including a public meeting and drop-in sessions in January 2026.



1.7 Related Plans

The Forth Bridge is simultaneously transport infrastructure, a World Heritage Site, a listed heritage asset, a tourist destination, and an economic enabler. Therefore, the Forth Bridge is relevant and referenced in many local, regional, and national strategies.

1.7.1 Transport Strategies

[National Transport Strategy 2 | Transport Scotland](#)

sestran.gov.uk/sestran-2035-regional-transport-strategy/

[Scotland-CP7-Delivery-Plan-Year-2-update.pdf](#)

1.7.2 Planning and Place Plans

[National Planning Framework 4 - gov.scot](#)

[Local development plan \(FIFEplan\) | Fife Council](#)

[City Plan 2030 – The City of Edinburgh Council](#)

[Development Planning & Environment \(DP&E\) - West Lothian Council](#)

[North Queensferry Local Place Plan](#)

South Queensferry Local Place Plan – in development during the Management Plan update

1.7.3 Heritage

[Our Past, Our Future | Historic Environment Scotland | History](#)

[Historic Environment Policy for Scotland | Historic Environment Scotland](#)

[managing-change-world-heritage.pdf](#)

[Managing the Old and New Towns of Edinburgh World Heritage Site - City of Edinburgh Council - Citizen Space](#)

1.7.4 Tourism

Forth Bridges Area Tourism Strategy

[Forth Bridges Area Tourism Strategy](#)



Fife Tourism Strategy
[Strategy - Welcome to Fife For Industry](#)

Edinburgh's 2030 Tourism Strategy
[Final-Draft-Edinburghs-Tourism-Strategy-2030.pdf](#)

Scotland Outlook 2030
[Scotland's National Tourism Strategy | VisitScotland.org](#)

Scotland's National Event Strategy, Scotland the Perfect Stage 2024-2035
[Scotland's National Events Strategy | VisitScotland.org](#)

1.7.5 Economic

[Regional Prosperity Framework — The Edinburgh and South East Scotland City Region Deal](#)
[FIFE-ECONOMIC-STRATEGY-2023-30-AUG.pdf](#)
[Edinburgh's economic strategy – The City of Edinburgh Council](#)
[Home - Forth Green Freeport](#)

1.7.6 Climate

Network Rail
[CLIMATE ACTION PLAN](#)

Fife Council
[Climate Fife 2024 Strategy and Action Plan](#)

City of Edinburgh Council
[Climate Ready Edinburgh preparing for climate change – The City of Edinburgh Council](#)

West Lothian Council
[WLC Climate Change Strategy 2021-28 FINAL.pdf](#)

VisitScotland
[VisitScotland's Climate Change Action Plan | VisitScotland.org](#)

Transport Scotland
[Environment and climate change | Transport Scotland](#)



1.8 Lifespan and Review Schedule for the Management Plan

The lifespan of this Management Plan will be 10 years, 2025-2035.

The accompanying action plan will be reviewed and updated in line with Network Rail's Control Periods every 5 years. The action plan will therefore be updated twice during the life of this Management Plan, at the end of Control Period 7 in March 2029 and at the end of Control Period 8 in March 2034. The Forth Bridges Forum will be presented with an annual progress report on the action plan by the Forth Bridge World Heritage Management Group.

The Action Plan from 2015 contained 45 number of actions in 7 themes: Identification (2), Protection (4), Conservation (9), Presentation (11), Community Benefit (2), Transmission to Future Generations (5) and Management (11).

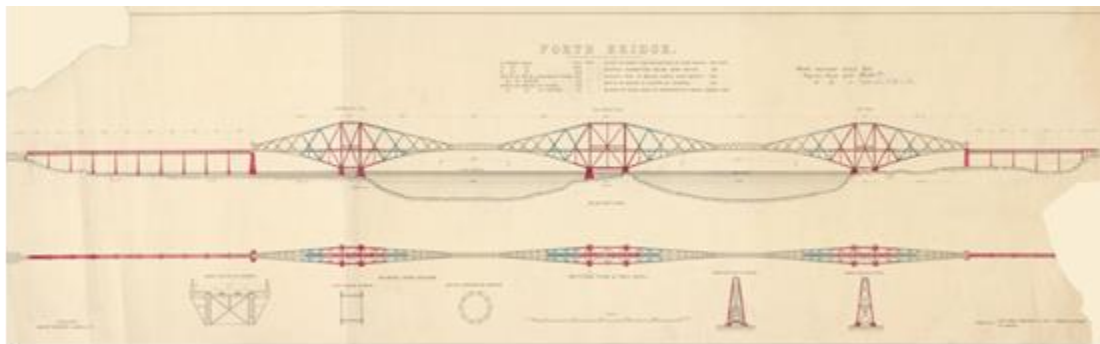
Some of these actions are ongoing into the new action plan, and some have been superseded by new actions.

There are case studies in Appendix E outlining progress on some key elements of the Action Plan from 2015: the Forth Bridges Tourism Strategy 2019-2029, creation of the Forth Bridges Trail, new Forth Bridges website, anniversary and charity events, the Forth Bridges education programme, commemorative plaques and the Forth Bridge writer-in-residence.

2. The Property Boundaries and Setting

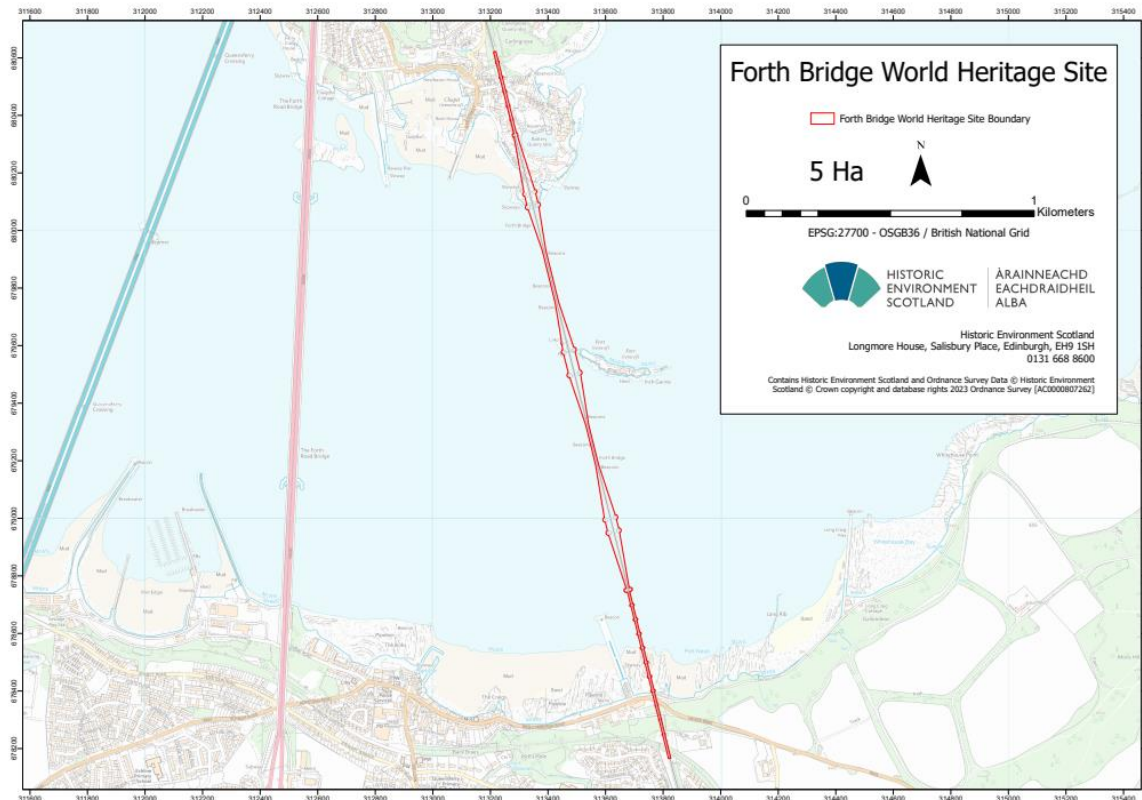
2.1 Property Boundary

The boundary for the Forth Bridge World Heritage Site is that used in the contract drawings. The main contract for constructing the masonry and steel elements of the bridge was let as one. Separate contracts were let for the embankments and cuttings connecting the bridge to the rest of the rail network, and these are not therefore considered to be part of the Forth Bridge.



Network Rail Archives: [The history of the Forth Bridge, Fife - Network Rail](#)

The World Heritage Site is the single railway viaduct stretching across the estuary from escarpment to escarpment.



Map: Historic Environment Scotland

Bridges: Left: Queensferry Crossing, Middle: Forth Road Bridge, Right: Forth Bridge

2.2 Setting

The Forth Bridge does not have a defined buffer zone. Instead, it was agreed by UNESCO in 2018, that there are key views and ten protected view-cones are in place. The assessment summarised below and in Appendix D demonstrates the effectiveness of key views and view-cones in protecting the WHS and its setting.



The ten protected view-cones agreed are:

1.	Ferryhills, North Queensferry, Fife
2.	B981 Above and below Balbougie Glen, Fife
3.	B9157 Clockluine Road, Fordell to Hillend, Fife
4.	Mons Hill, Dalmeny, City of Edinburgh
5.	Dalmeny Main Street near water tower, City of Edinburgh
6.	Station Road/ Bankhead Rd, Dalmeny, City of Edinburgh
7.	Forth Bridges Contact & Education Centre, Queensferry, City of Edinburgh
8.	Newton, West Lothian Council
9.	Viewing Tower at the House of the Binns, West Lothian Council
10.	Castland Hill, Fife

Setting Indicators: The World Heritage Management Group monitors development pressure on the immediate setting (the 'Bridgehead Zone') and on the wider setting, defined by ten specific view cones within a viewshed derived from land contour mapping. There have been no significant developments affecting the setting or OUV of the property, either in the Bridgehead Zone or in any of the ten view cones since the World Heritage listing in 2015.

Appendix D shows full details of the view-cones, with recent photographs replicating the initial management plan photographs. The Working Group has recommended rationalising View-cones 2 and 3 due to their similarity. More detail is in Appendix D.



3. Significance and Outstanding Universal Value

3.1 What is World Heritage and Why Does it Matter?

3.1.1 World Heritage Sites and The World Heritage Convention

World Heritage Sites (WHSs) are exceptional places recognised by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) as having such importance that they belong to all the peoples of the world, irrespective of the territory on which they are located. Each WHS represents a unique, or the most significant or best, example of the world's cultural and/or natural heritage. This is their Outstanding Universal Value, which transcends national boundaries and is of importance for present and future generations.

The properties on the World Heritage List are assets held in trust to pass on to generations of the future as their rightful inheritance.

Budapest Declaration on World Heritage, 2002

World Heritage Status is a high accolade that brings responsibilities and international scrutiny. Once a Site is added to the List, the government of the State where it is located has a duty to protect, conserve and present these Sites for future generations.

The UNESCO World Heritage Committee decides which Sites to inscribe on the World Heritage List. The World Heritage Committee also examines reports on the state of conservation of WHS on the List and can request that State Parties take action to address conservation issues. It can also add Sites to the List of World Heritage in Danger or, in rare cases, remove them from the World Heritage List.

3.1.2 World Heritage in Scotland and the UK

In 1984, the UK Government ratified the World Heritage Convention. World Heritage Sites remain a reserved matter under the Scotland Act 1998, and therefore responsibility in the UK lies with the Department for Digital, Culture, Media & Sport (DCMS). However, management of the historic and natural environment in Scotland is a devolved matter, with responsibility sitting with Scottish Ministers. A concordat between DCMS and the Scottish Government provides that Scottish Ministers are responsible for the selection of sites in Scotland for nomination and for ensuring the proper management of the Scottish World Heritage Sites. All matters pertaining to the management of the sites are therefore agreed with the Scottish Government, where appropriate, in the first instance.

The UK currently has 35 WHS of which seven are in Scotland: Heart of Neolithic Orkney; New Lanark; The Forth Bridge; Frontiers of the Roman Empire: The Antonine Wall; The Flow Country; Old and New Towns of Edinburgh; St Kilda.



Five of Scotland's WHS are inscribed under cultural criteria (including the Forth Bridge), while St Kilda is inscribed under both natural and cultural criteria and The Flow Country under natural criteria.



Source: Historic Environment Scotland

3.2 Outstanding Universal Value

WHS are inscribed on the World Heritage List because UNESCO considers that they have Outstanding Universal Value (OUV): that is, 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. OUV is a cornerstone of the protection of WHS for UNESCO and for States Parties, and protection of OUV is now built into guidance for heritage protection across the UK.

The Statement of Outstanding Universal Value (SOUV) for the Forth Bridge WHS (World Heritage Site) can only be amended by UNESCO. This Statement provides a clear



understanding of the reasons for the Site's inscription on the World Heritage List, and of what needs to be managed to protect and manage the Site to sustain the OUV for the long term.

For the World Heritage Committee and the Advisory Bodies, the SOUV is an essential reference point for monitoring, Periodic Reporting, possible inclusion on the List of World Heritage in Danger and deletion from the List.

There are ten formal criteria for OUV, six for cultural heritage and four for natural heritage. The Forth Bridge fulfils criteria (i) and (iv).

World Heritage properties must possess integrity which means a Site must be of sufficient size, and its components must be sufficiently complete, to demonstrate OUV. Cultural WHS must also demonstrate authenticity: which relates to the credibility of evidence for meeting the above criteria, and an authentic representation of the historical record of the site's cultural and natural attributes. Effective protection and management measures to safeguard the OUV must be in place. This means implementing legal, regulatory and management frameworks to ensure the sustainable conservation and enjoyment of the WHS for current and future generations.

3.3 Statement of Outstanding Universal Value

The following is an extract from the Forth Bridge WHS Statement of Outstanding Universal Value.

The Forth Bridge, which spans the estuary (Firth) of the River Forth in eastern Scotland to link Fife to Edinburgh by railway, was the world's earliest great multispan cantilever bridge, and at 2,529 m remains the longest. It opened in 1890 and continues to operate as an important passenger and freight rail bridge. This enormous structure, with its distinctive industrial aesthetic and striking red colour, was conceived and built using advanced civil engineering design principles and construction methods. Innovative in design, materials, and scale, the Forth Bridge is an extraordinary and impressive milestone in bridge design and construction during the period when railways came to dominate long-distance land travel.

This large-scale engineering work's appearance is the result of a forthright, unadorned display of its structural elements. It is comprised of about 54,000 tons of mild steel plate rolled and riveted into 4m diameter tubes used in compression, and lighter steel ties and bracing used in tension. The use of mild steel, a relatively new material in the 1880s, on such a large-scale project was innovative, and helped to bolster its reputation. The superstructure of the bridge takes the form of three double-cantilever towers rising 110 m above their granite pier foundations, with cantilever arms to each side. The cantilever arms each project 207 m from the towers and are linked together by two suspended spans, each 107 m long. The resulting 521-m spans formed by the three towers were individually the longest in the world for 28 years and remain collectively the longest in a multi-span cantilever bridge. The



Forth Bridge is the culmination of its typology, scarcely repeated but widely admired as an engineering wonder of the world.

Criterion (i): *The Forth Bridge is a masterpiece of creative genius because of its distinctive industrial aesthetic, which is the result of a forthright, unadorned display of its massive, functional structural elements.*

Criterion (iv): *The Forth Bridge is an extraordinary and impressive milestone in the evolution of bridge design and construction during the period when railways came to dominate long-distance land travel, innovative in its concept, its use of mild steel, and its enormous scale.*

Integrity

The property contains all the elements necessary to express the Outstanding Universal Value of The Forth Bridge, including granite piers and steel superstructure. The 5-ha property is of adequate size to ensure the complete representation of the features and processes that convey the property's significance, and it does not suffer from adverse effects of development or neglect.

Authenticity

The Forth Bridge is fully authentic in form and design, which are virtually unaltered; materials and substance, which have undergone only minimal changes; and use and function, which have continued as originally intended. The links between the Outstanding Universal Value of the bridge and its attributes are therefore truthfully expressed, and the attributes fully convey the value of the property.

3.4 Attributes of Outstanding Universal Value

Attributes are elements, processes or features that convey the OUV. Identifying Attributes and understanding their interrelationships is crucial to understanding OUV and to ensuring it is protected and managed. They can be physical features, relationships, and linkages, and tangible or intangible aspects or processes.



The following eight key attributes for the Forth Bridge were listed in the UNESCO Periodic Reporting Cycle 3 in 2024.

Attribute	Measurement of Change
Form – strength, grace	The Forth Bridge continues to retain its form. No change has been recorded.
Scale – contrasted with piers, houses, bothies	The scale of the Forth Bridge remains unaltered in relation to its piers, houses, and workers bothies.
Function – connecting people	The function of the Forth Bridge is a working rail bridge. This has been unchanged since it opened in 1890, therefore the function of connecting people is preserved.
Fabric - materiality	The fabric of the Bridge is being conserved and replaced only in exceedingly small quantities. During Network Rail’s Control Period 5, 2014-2018, 4 tonnes of mild steel was replaced like for like = 0.007% of the structure. Network Rail is compiling the details for CP6 and CP7 to include in this document.
Coating – red, a never-ending task	The repainting between 2000 and 2012 completely stripped back the original lead-based paint and replaced it with a less-toxic much more resilient glass-flake epoxy system which has greatly enhanced the appearance of the property whilst retaining its authentic red colour. Since then, the need for painting has been significantly reduced. Future painting activity, as measured by the quantity of paint applied in any one year, reflects the scale of maintenance work protecting the property, and the performance of the new paint systems.



	2,000 litres of paint were used over the CP5 (2014-18) period at an average of 400 litres per year. Network Rail is compiling this information to include in this document for CP6 and CP7. CP6 included the work on the northern approach viaduct.
Symbolism – gateway, links	The Forth Bridge continues to be used by institutions and individuals as a Scottish icon. Examples include: South East of Scotland Transport Partnership Transport Strategy https://sestran.gov.uk/sestran-2035-regional-transport-strategy/ Welcome to Fife podcasts https://open.spotify.com/show/2lf7bjrzWiedRLntGeRsDZ?si=e4e9504bc3cb4a92 Other examples may be added for the final document.
Kinetic experience to travellers on the move, at sea, in the air and over the bridges	There has been a slight increase in average number of trains from 200 to 220 daily (Source Network Rail, June 2025). Travellers continue to share their photographs of the Forth Bridge and its two road bridge neighbours. A popular photograph to share of the 3 bridges from



	the air via an airplane window arriving/leaving Edinburgh airport. It is not practicable to measure the volume of such photography.
Engineering achievement	The engineering achievements represented by the Forth Bridge continue to be celebrated and central to the education programme. A series of events took place to mark the 125th (2015), 130th (2020) and 135th (2025) anniversaries of the opening of the bridge. The School Education Programme includes the Forth Bridge, alongside its two road bridge neighbours, and the key engineering principles have been communicated to 125,000 young people since 2014. See Appendix E for more details of these events and programmes.

3.5 Values of the Property

The nomination document contained a table of 17 Values and corresponding attributes. The table below reviews the values corresponding attributes, integrity, authenticity, and state of conservation.

Values	Attributes	Integrity	Authenticity	State of Conservation
1. Art of the possible is	Long spans curving over	✓	✓	✓



shown by conquest of a natural obstacle	troughs in the seabed			
1. Art of the possible is shown by conquest of a natural obstacle	A marvel documented during construction, especially 1887-9	✓	✓	✓
2. Engineering form triumphant over style	Complete absence of decoration	✓	✓	✓
2. Engineering form triumphant over style	Recognition by international engineering profession	✓	✓	✓
3. Solidity, strength, and security (to recover the reputation of railway engineering from the Tay Bridge Disaster)	Diminutive scale of the pier on Inchgarvie for the start of Bouch's suspension bridge contrasting with the Holbein straddle of the cantilevers	✓	✓	✓
3. Solidity, strength, and security	sweeping batter of the stone piers	✓	✓	✓
3. Solidity, strength, and security	strong tubes for compression elements	✓	✓	✓
3. Solidity, strength, and security	arched form of bottom chord (unlike most cantilever bridges) and relatively small link spans to continue the apparent curve.	✓	✓	✓



3. Solidity, strength, and security	• wider central pier (noticeable in East or West elevation)	✓	✓	✓
4. Scientific awareness of climatic effects, post Tay Bridge disaster	• Allowance in expansion joints, sliding bed plates and bracing, for thermal effects and extreme wind loads	✓	✓	✓
5. Gigantic scale	• Unprecedented 4-metre diameter dimensions of tubular skewbacks	✓	✓	✓
5. Gigantic scale	• Contrasting small scale of houses and all other structures at both Queensferry beneath the bridge	In setting	✓	Generally good
6. A key operational part of the national rail infrastructure	• 220 train movements per day: a monitoring indicator	✓	✓	✓
7. Represents UK railways and the age of improvement	• Unrelated books ranging from the <i>DNA of the Scots</i> to the <i>Archaeology of modern Britain</i> have the Forth Bridge on their covers.	✓	✓	✓
7. Represents UK railways and the age of improvement	• A highlight of rail tours, e.g., Railway Touring Co "Great Britain VI" from SW England	✓	✓	✓



	and Wales to Scotland has Forth Bridge as its headline image.			
8. Gateway	For train passengers, views down into the Queensferry, succeeded by glimpses through the tubes and spars, and the echoing sound of the train, make crossing it a multi-sensory experience.	✓	✓	✓
8. Gateway	From the north, imminent arrival in Edinburgh or a significant stage in journeys south.	✓	✓	✓
8. Gateway	From the south, the start of an adventure in northern Scotland: a proper journey not just a trip.	✓	✓	✓
8. Gateway	From the east, a sense of arrival in Scotland when on a ship, or on an airplane on the flight path to/from Edinburgh airport.	✓	✓	✓
8. Gateway	To road-users, the tops of the bridge stand out e.g., from the M90 by Crossgates, signal proximity to the Forth and although lower are more eye-catching than	✓	✓ Dot matrix signs on M90	✓



	the towers of the Road Bridges.			
9. Landmark dominating its setting	10 key view-cones have been selected to illustrate the scale and presence of the Forth Bridge from different viewpoints in the 3 local council areas. See appendix D for full details.	✓	✓	✓
10. Human effort and sacrifice.	73 deaths during construction. Besides graves in local churches and monuments to the dead in the Queensferry (put up in 2012), the bridge is itself a monument.	In and outside setting	✓	✓
10. Human effort and sacrifice.	Workmen's bothies exist on the bridge, tiny reminders of human element vs vast scale of bridge.	✓	✓	✓
10. Human effort and sacrifice.	Workshops and houses for staff at 1-16 Rosshill Terrace, Dalmeny for foremen, and senior staff (Bridge House, listed).	Rosshill Terrace not in conservation area	Temporary barracks were removed in 1890	Reasonably upgraded. Pebbledash on brick houses.
11. Heroic age of engineering	Major triumph for the contractors, much visited during construction by eminent engineers and non-engineers.	✓	✓	✓



11. Heroic age of engineering	Pioneered use of hydraulic machinery on a large scale	✓	✓	✓
11. Heroic age of engineering	Steel in riveted tubes, formed large-section elements when viewed from the ground level (accessible to all).	✓	the last 'gold' rivet (in fact brass) placed by Prince of Wales	✓
11. Heroic age of engineering	Multiple spars for tension elements, diagonals and when viewed horizontally below track level and at high level (mainly seen by staff).	✓	✓	✓
12. Emblematic of local communities	Image used in - Community Council - Signage by many shops/cafes in Queensferry community and events like the "Loony Dook" - Boat tours - Local company advertising	In both Conservation Areas and beyond	NA	NA
13. Worth defending	Fortifications ranging in date from medieval to Second World War, batteries, mining and coastguard stations perched around quarries in Fife, all point to the narrowing of the Forth at	✓	✓	Carlingnose now in domestic/office use. Inchgarvie fortifications deteriorating slowly.

	the point that dictated the location of the Bridge.			
13. Worth defending	First aerial dog fight in WWII, so it was a high-profile target	✓	✓	
14. Linking communities, expanding opportunities for travel.	Located on the site of the historic crossing point on the river between what are now the towns of Queensferry and North Queensferry. Attributes such as:	All in setting		
14. Linking communities, expanding opportunities for travel.	ferry piers by John Rennie and by Stevenson	✓	✓	✓ (But with RNLI and Coastguard on Hawes Pier)
14. Linking communities, expanding opportunities for travel.	related inns and leading lights	✓	✓	✓ (NQ lantern restored 2011)
14. Linking communities, expanding opportunities for travel.	Forth Road Bridge, opened in 1964, the first long-span suspension bridge in the UK, also crosses the isthmus.	✓	✓	✓ (Bridge condition monitored)
14. Linking communities, expanding opportunities for travel.	Queensferry Crossing opened 2017, part of the motorway network, a cable-stayed bridge	✓	✓	✓



	with the tallest towers in the UK.			
15. Commercial competition driving forward development	Commercial driver: North British Railway Co built both the Forth and Tay bridges only because it was in competition for longer-distance passengers with Caledonian Railway. The prestigious railway termini and hotels in Edinburgh also reflect this.	✓ (Only the Forth Bridge is in the property)	✓	✓
16. Reputation as a by-word for an enduring task	'Forth Bridge' red paint, "It's like painting the Forth Bridge" has long supplanted the idiom Sisyphus and his stone in the English language.	✓	✓ (Now over a long-lasting glass flake epoxy coating)	Good
17. Iconic representation of Scotland: making tangible the intangible	Used in bank notes, pound coins, Fife Council's logo, in commercial advertising ("Irn Bru made from girders"), Millennium count-down clock, and as a backdrop for political announcements.	Everywhere across Scotland	Use is as high as ever	✓

3.6 Designated Assets

3.6.1 Inventory Historic Gardens and Designed Landscapes

While no Inventory Garden or Designed Landscape lies within the Forth Bridge World Heritage Site itself, several nearby sites contribute significantly to its setting. These



landscapes, listed in the national Inventory compiled by Historic Environment Scotland, are especially prominent on the south side of the River Forth.

They include:

- Dalmeny Estate, stretching from the Bridge to Mons Hill and Hound Point, forms part of the bridgehead zone.
- Hopetoun House, with direct and elevated views of the Bridge, though now partially interrupted by modern infrastructure.
- House of The Binns, offering panoramic views across Hopetoun to all three bridges.
- Dundas Castle, with views from a low ridge to the bridges.
- Fife estates such as Fordell Castle, Pittencrieff, and St Colme, which overlook the Forth and benefit from Inventory designation.

These landscapes serve as cultural and natural safeguards for the wider setting of the Bridge. Under planning regulations, Historic Environment Scotland must be consulted on developments affecting these sites. While their designation does not prohibit change, it ensures that impacts on both the designed landscape and the World Heritage Site's Outstanding Universal Value (OUV) are considered.

Inventory landscape descriptions highlight the scenic and architectural significance of these landscapes, reinforcing their role in protecting key views to and from the Forth Bridge.

3.6.2 Inventory of Historic Battlefields Scotland

The northern end of the Forth Bridge lies within the area designated as the Battle of Inverkeithing II. This area marks the 1651 landing of an English army at North Queensferry, leading to a running battle with Scottish forces that culminated in a pitched battle at Pitreavie Castle. Although the landscape has changed due to urban development and infrastructure, topography and historical accounts help identify key locations such as Ferryhills and Castland Hills.

The Inventory of Historic Battlefields is a non-statutory designation aimed at preserving key landscape features while accommodating modern needs. Planning authorities are required to consult Historic Environment Scotland regarding developments with the potential to impact on these sites. While not legally restrictive, these designations influence planning decisions.

A whinstone quarry near the northern headland, historically used in constructing the Forth Bridge, operates occasionally. Its expansion is limited by a nearby public road. Castland Hill, within the battlefield area and a protected Forth Bridge viewpoint in Fife's Local



Development Plan, benefits from the landscape protection offered by its inclusion within the area designated as the Battle of Inverkeithing II.

3.6.3 Natural Heritage Designations

The inter-tidal zone close to and below the bridge benefit from natural heritage designations that are layered according to their international and national status and their value to different species.

Specific natural designated sites and areas include:

Firth of Forth Special Protection Area (SPA):

<http://sitelink.nature.scot/site/8499>

SPAs are strictly protected sites classified in accordance with Article 4 of the EC Birds Directive, which came into force in April 1979. They are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species, at, for example, Port Edgar.

Firth of Forth Ramsar (Wetland) Site:

<https://sitelink.nature.scot/site/8424>

Ramsar sites are wetlands of international importance, designated under the Ramsar Convention of 1971 (ratified by the UK in 1976). Previously protected through measures associated with the European sites and/or Sites of Special Scientific Interest (SSSIs) they overlap, from July 2025 Scottish Government policy is for all Ramsar sites to be treated the same as European sites for the purposes of land use change and decision-making in planning.

This designation applies to the inter-tidal shoreline of North Queensferry round to and including Inverkeithing Bay, and on the corresponding southern Shore, the area from Port Edgar and Queensferry around Dalmeny and Hound Point, taking in Cramond Island as far as, and including, Granton Harbour west breakwater. Only Rosyth, Dalgety Bay and Hopetoun are stretches of the shore not within this designation. This means that the rocky shore beneath the Forth Bridge (including the two road bridges across the Forth) and all the ferry slipways in their immediate environs, are protected from actions that might harm their value to migratory bird species. A consequence of this natural heritage designation is the protection of the foreground in views from the shore to the Forth Bridge.

Sites of Special Scientific Interest (SSSI)

SSSIs are those areas of land and water (to the seaward limits of local authority areas) that NatureScot considers to best represent natural heritage – its diversity of plants, animals and habitats, rocks and landforms, or a combination of such natural features. They are the



essential building blocks of Scotland's protected areas for nature conservation. Many are also designated as Natural sites (Special Protection Areas (SPA) or Special Areas of Conservation). The national network of SSSI in Scotland forms part of the wider GB series. NatureScot designates SSSI under the Nature Conservation (Scotland) Act 2004. SSSIs are thus protected by law. It is an offence for any person to intentionally or recklessly damage the protected natural features of a SSSI.

Firth of Forth SSSI

<https://sitelink.nature.scot/site/8163>

The Site Management Statement, sets out five broad objectives for management:

- maintaining bird populations,
- maintaining the area in a favourable condition for feeding, resting, roosting, and breeding
- maintaining habitat, botanical, and invertebrate interest,
- maintaining the geological features of interest,
- encouraging recreational enjoyment while recognising the need to protect the nature conservation interest.

Long Craig Island SSSI

<http://sitelink.nature.scot/site/1658>

A low rocky island beneath the Forth Road Bridge and close to the northern shore, this site is managed by the Scottish Wildlife Trust (SWT). Though exposed, with little cover and vulnerable to being wave-swept, the island was first designated for supporting small numbers of breeding roseate terns (*Sterna dougalii*) and a colony of breeding common terns (*S. hirundo*). The primary objective of the Management Statement is for the maintenance of the breeding roseate tern population; the continued use of the island by common terns is noted as essential for roseate tern presence, for reasons of mutual protection from gull predation of their young.

It should be noted that this island is also covered by the Forth Islands SPA designation which applies to a series of islands in the outer Firth which support the main seabird colonies of the Firth of Forth (see <http://sitelink.nature.scot/site/8500>).

Carlingnose Quarry SSSI

<http://sitelink.nature.scot/site/317>



This former quarry is managed as part of the Carlingnose Point Wildlife Reserve and includes a stretch of the Fife Coastal Path that offers good views towards the Bridge. The site has a high degree of habitat and plant diversity. Management aims are to maintain existing grassland areas; to reduce invasive gorse scrub and provide access and interpretation to the site.

3.6.4 Scheduled Monuments

The property contains no scheduled monuments. This designation applies to assets of national importance, mostly those that are not expected to be put into use. The setting of each scheduled monument is protected. Within the immediate setting of the Forth Bridge there lies:

- Fife: The Chapel of St James, patron saint of Travellers/Pilgrims, an essential place of worship for all ferry travellers in the Middle Ages.
- City of Edinburgh: the Island of Inchgarvie is scheduled and specifically excludes the Forth Bridge. The central cantilever tower of the bridge stands on rock that is near the island but is not connected above the low waterline.

3.6.5 Conservation Areas

The springing point at each end of the bridge is protected by Conservation Area designation: North Queensferry Conservation Area and Queensferry Conservation Area. These cultural designations link into the relevant local development plans. Any development there must enhance or preserve the special character of the area, as is set out in their respective conservation area appraisals, revised in 2011 and 2015, respectively. Trees and buildings are protected from felling, lopping or demolition without the appropriate permissions. Certain works to buildings that are within conservation areas may need planning permission.

3.7 Legislative and Planning System

The United Kingdom's adherence to the World Heritage Convention is manifested through a robust planning framework that recognises the unique status of World Heritage Sites. In Scotland, this framework is integrated into national planning policies, which afford a protective overlay to sites of such distinguished heritage value. The Forth Bridge, positioned within this framework, benefits from specific planning considerations that aim to preserve its key sight lines.

3.7.1 Land-Use Planning



This Section provides details of the development management and planning system covering the property and the areas at each end of the bridge. Existing plans and policies support the heritage protection system covering listed buildings, scheduled monuments, conservation areas, and World Heritage Sites. These plans and policies provide for the protection of the landscape and the cultural and natural heritage environmental setting of the Bridge. The Forth Brides Forum, including its local authority partners with responsibility for planning, is committed to the full and effective use of policy for the protection, conservation and promotion of the property, and will periodically review local plan policies to ensure an agile and responsive approach to ongoing protection of the Bridge and its setting.

Scotland has a statutory planning system which manages development and the use of land. It includes a National Planning Framework setting out long-term spatial strategy and national policies, and Local Development Plans providing more detailed policy and guidance at the local authority level. These plans form the primary basis for assessing planning applications. Decisions on these planning applications are made by local planning authorities or, in some cases, by Scottish Ministers.

3.7.2 World Heritage Sites and Planning

World Heritage Sites in Scotland are protected by legislation, by national planning policy and by local planning policy. The Town and Country Planning (Scotland) Act 1997 as amended by the Planning etc. (Scotland) Act 2006 and the Planning (Scotland) Act 2019 provides the foundation for local and regional planning policy and serve as the legislative basis guiding development plans, development management and enforcement in Scotland. Additionally, individual buildings, structures, monuments, and areas of special archaeological, architectural, or historic interest are designated and protected under the Planning (Listed Building and Conservation Areas) (Scotland) Act 1997 and the Ancient Monuments and Archaeological Areas Act 1997. The Forth Bridge is a category A listed building, whilst the Queensferry and North Queensferry Conservation Areas, both containing many individually listed buildings, exist to preserve and enhance the character and appearance of the historic settlements that make up the north and south landfall zones of the bridgehead area.

The *Historic Environment Policy for Scotland (HEPS, 2019)*, is the national policy statement that outlines the context and material considerations for policy and decision-making in relation to the management of change in Scotland's historic environment. The Scottish Government's *National Planning Framework 4 (NPF4, 2023)* sits alongside *HEPS*. It directs planning and land use decisions across Scotland, providing core development plan policies, and it provides for the protection of World Heritage Sites and their settings by considering the impact of development on their Outstanding Universal Value, including authenticity and integrity. Local planning policies specifically protecting the Forth Bridge are contained within



Edinburgh City's and Fife Council's local development plans: *City Plan 2030* (2024, policy Env 9), and *FIFEplan* (2017, Policy 14).

3.7.3 Relevant Local Plans

There are currently four levels of planning in Scotland:

- The National Planning Framework for Scotland (currently *NPF4*)
- Regional Spatial Strategies (RSSs), which are in the process of replacing the former Strategic Development Plans for Scotland's city regions.
- Local Development Plans and associated Supplementary Guidance (which are a material consideration in the determination of planning applications and form part of a statutory local development plan, e.g. *Making Fife's Places Supplementary Guidance* (2018) which includes policies protecting key viewpoints of the Bridge)
- Non-statutory planning guidance, considered material to the determination of planning applications, whether approved by Council committees or published by Historic Environment Scotland (e.g. Conservation Area Appraisals, World Heritage Site Management Plans and Historic Environment Scotland's Managing Change in the Historic Environment series, for example, *Managing Change in the Historic Environment: World Heritage* (2016)).

The Planning (Scotland) Act 2019 has changed the role of supplementary guidance in the Scottish planning system, repealing provisions for planning authorities to prepare supplementary guidance in connection with Local Development Plans. As a result, supplementary guidance will not form part of the statutory development plan in future. Transitional arrangements are in place maintaining the status of existing supplementary guidance associated with current Local Development Plans at this time.

Local Development Plans (LDPs) set out policies and proposals for the development and use of land in their area. They are locally tailored applications of regional and national planning policy and must conform to the National Planning Framework (NPF) and to any relevant Regional Spatial Strategy (RSSs) covering their area. The *Historic Environment Policy for Scotland* (HEPS, 2019) is the strategic statement of national policy relating specifically to the historic environment. Below the LDP, more detailed local guidance is set out in Supplementary Guidance documents.

The policies in each LDP are used to determine applications for development. The LDP also informs decisions on local investment opportunities, and on the provision of local infrastructure and community facilities. Residents and community groups are encouraged to shape LDPs through the consultation process and once adopted, to use the LDP to understand and engage with planning issues affecting their area.



LDP policies therefore determine the way in which development affecting World Heritage Sites are managed, and how they are protected from inappropriate development. All development and land use change proposals are determined in relation to LDPs (together with the National Planning Framework), which set out a framework and a vision of the ways in which areas should change over time. They describe where development will take place and where it should not. The effectiveness of LDPs is subject to ongoing monitoring, consultation, and revision, with each LDP being fully refreshed approximately every ten years.

The planning authorities surrounding the Bridge are currently in a state of transition between the old Local Development Plan system and the new post-NPF4 system. However, the principles behind, and the strength of the policies affecting the Bridge and its setting remain the same through this period of change. The local planning authorities in the wider bridgehead area, Fife, the City of Edinburgh and West Lothian Councils, are all represented on the Forth Bridge World Heritage Management Group, and play an important role in ensuring that the proper conservation of the Bridge is adequately promoted both in local planning policy and in all new and revised Plans and guidance. The Partnership Management Agreement between Network Rail Infrastructure Ltd, the City of Edinburgh Council, Fife Council and Historic Environment Scotland concerning the Forth Bridge (January 2025), underpins the consistent, joined-up approach to managing operational change on the category A-listed bridge through the listed building consent process.

All LDPs contain policies demanding high standards of design in new development, along with a broad range of environmental policies relating to protection of conservation areas, listed buildings, the historic environment, trees, the natural environment, and Local Landscape Areas. These policies all contribute the protection of the Outstanding Universal Value of the Forth Bridge and its setting.

Specific policies relating to the protection of the World Heritage listed Forth Bridge are also contained within the LDPs of the two planning authorities covering the bridgehead area, Fife and the City of Edinburgh. NPF4's commitment to protecting World Heritage, and its specific policy on World Heritage forms part of both the Fife and City of Edinburgh LDPs:

- Policy 7 - Historic Assets and Places

l) Development proposals affecting a World Heritage Site or its setting will only be supported where their Outstanding Universal Value is protected and preserved.

3.7.3.1 Fife LDP Policy Summary

The current Local Development Plan for Fife, FIFEplan, adopted in 2017, is currently under review and will be replaced by a new LDP by May 2028. Until the formal adoption of the new plan, FIFEplan, its associated supplementary planning guidance, and the ethos and policies contained within National Planning Framework 4 will remain the current, adopted



statement of Council policy relating to planning and the protection of Fife's historic environment.

Fife's new LDP will include an updated policy framework, that alongside NPF4, will protect the Forth Bridge and its setting. The current relevant policies for the protection of world heritage are:

- FIFEplan Policy 14 – Built and Historic Environment

Development which protects or enhances buildings or other built heritage of special architectural or historic interest will be supported. Proposals will not be supported where it is considered they will harm or damage: the Outstanding Universal Value of the World Heritage Site and its setting.

Making Fife's Places Supplementary Guidance (2018), which forms part of the Fife LDP, provides guidance on how the historic environment should be taken into consideration when working up development proposals. It also identifies the specific characteristics of the historic environment that are of most importance in the site appraisal process. Appendix D: The Forth Bridge World Heritage Site: Key Viewpoints sets out the viewpoints that should be protected.

There are 4 view-cones in Fife:

1.	Ferryhills, North Queensferry, Fife
2.	B981 Above and below Balbougie Glen, Fife
3.	B9157 Clockluine Road, Fordell to Hillend, Fife
10.	Castland Hill, Fife

Any development proposed within the four Fife view cones described in Appendix D are required to provide high quality visual representations showing the impact of their proposal from the associated viewpoint. If the development includes proposals for significant external lighting, representations of the views at night must also be included.

The most important elements when considering the impact of a proposed development on the setting of the Bridge from a particular viewpoint are:

- Does the proposal cut across the view of the Forth Bridge at any point?
- Does the proposal create a significant negative visual impact on the setting of the Bridge?
- Does light generated by the proposal negatively impact on the view of the Bridge at night?

Consideration also needs to be given to the impact of the proposals on views from neighbouring authorities. Fife Council encourages pre-application discussions for any development which falls within the four view cones. Fife Council would also resist



applications for Planning Permission in Principle in these areas where they would not in general provide sufficient detail for an informed decision to be taken.

3.7.3.2 City of Edinburgh LDP Policy Summary

The current Local Development Plan for the City of Edinburgh, *City Plan 2030*, adopted in 2024, its associated supplementary planning guidance, and the ethos and policies contained within National Planning Framework 4 are the current, adopted statement of Council policy relating to planning and the protection of the Edinburgh area's historic environment.

- *Env 9 World Heritage Sites*

Development which would harm the qualities of World Heritage Sites, and which justified the inscription of the Old and New Towns of Edinburgh and/or the Forth Bridge as World Heritage Sites (i.e. their Outstanding Universal Value) or would have a detrimental impact upon their setting, will not be permitted.

This policy requires development to respect and protect the Outstanding Universal Value of each World Heritage Site and its settings. The Statement of Outstanding Universal Value for World Heritage Sites provides the summary for why a Site is considered to be of international importance and should be used to establish a baseline for assessing development.

This policy also requires the protection of key characteristics of buildings and their setting. Setting may include sites in the immediate vicinity and viewpoints identified in the key views study as well as other views to and from important buildings and landscape features throughout the city.

- *Env 29 Waterside Development*

In relation to development on sites on the coastal edge, a study undertaken for the Council identifies key public viewpoints and is used in assessing proposals for high buildings affecting World Heritage Sites and their settings.

- [*Edinburgh Design Guidance \(2025\)*](#)

Further advice is provided in *Edinburgh Design Guidance (2025)* which states: Where change may affect the OUV of the Forth Bridge WHS, consideration of cultural (and/or natural) heritage attributes should be central to planning any proposal. These should be presented early on in any general assessment. Decision makers should carefully consider the weight given to heritage conservation needs. A key consideration is the threat or risk to World Heritage Site integrity, and this should be clearly addressed in any Environmental Impact Assessment (EIA) or Heritage Impact Assessment (HIA) report.

Where a statutory environmental impact assessment is required, cultural heritage sections must take account of the International Council on Monuments and Sites (ICOMOS) Guidance on Heritage Impact Assessments for Cultural World Heritage properties where the EIA



relates to a World Heritage Site. A Heritage Impact Assessment (HIA) undertaken as part of an EIA in these circumstances is not additional to normal EIA requirements but uses a different methodology which clearly focuses on OUV and attributes that convey that OUV. The requirements should be made clear at the planning or scoping stage and should be taken account of.

The Forth Bridge and its setting are also recognised as creating a very strong sense of place. The Bridge was inscribed as a World Heritage Site in July 2015, reflecting the innovation in engineering, construction and materials used to create the iconic structure, which remains in its original use. The scale and power of the Forth Bridge creates a visually dominant landmark and a number of designations around the bridge ensure that it is protected at an appropriate level.

To help further safeguard its setting, a viewshed analysis identified a total of 10 key views; four of which lie within the City of Edinburgh. The protection of these key views and their characteristics will be a key planning consideration. More information on the key viewpoints within the City of Edinburgh area is in 'The Forth Bridge World Heritage Site: Key Viewpoints' document (<https://www.edinburgh.gov.uk/downloads/file/26633/the-forth-bridge-key-viewpoints-2016>)

In general, development in the Northwest and particularly in and around Queensferry and Port Edgar must take into account any possible impacts on the Forth Bridge. The four monitored views of the Forth Bridge from within the City of Edinburgh boundary are as identified in Appendix D as below:

4.	Mons Hill, Dalmeny, City of Edinburgh
5.	Dalmeny Main Street near water tower, City of Edinburgh
6.	Station Road/ Bankhead Rd, Dalmeny, City of Edinburgh
7.	Forth Bridges Contact & Education Centre, Queensferry, City of Edinburgh

3.7.3.3 West Lothian Council LDP Policy Summary

The Council is in the process of preparing a new Local Development Plan for West Lothian – LDP2, an update from the LDP published in 2018. The new plan will set out planning policies and proposals for the use and development of land across West Lothian for a period of 10 years.

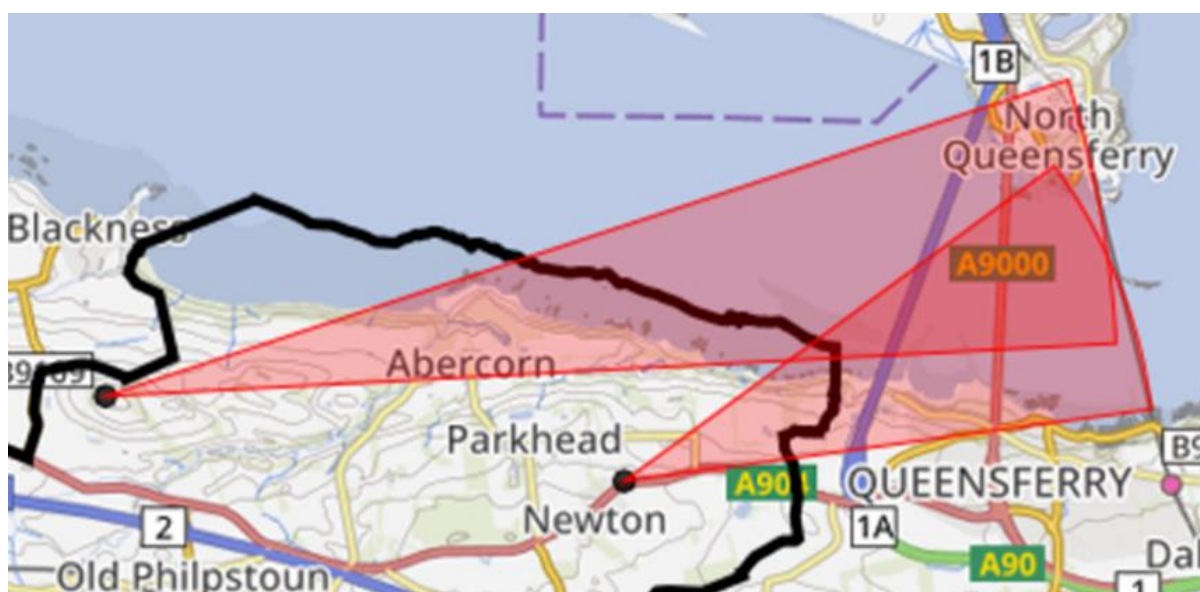
The bridge is some 2.6 kilometres east of the West Lothian – City of Edinburgh mutual boundary at Linn Mill, South Queensferry. Thus, the primary concerns for this Council are protecting the landscape setting of the Bridge, and one of the key viewpoints is a layby off the A904 just east of Newton village which, at 86 metres above sea level, has views across and slightly downward at all three bridges.



There are two view-cones in West Lothian.

8.	Newton, West Lothian Council
9.	Viewing Tower at the House of the Binns, West Lothian

Landscape setting view sheds as identified in Appendix D – the two viewpoints based at Binns Hill, House of the Binns estate (view-cone 9) and the A904 layby east of Newton (view-cone 8), remain on the Council's Geographic Information System (GIS) mapping layers including the view cones as per GIS map clip below.



In the period since the last Management Plan in 2015, West Lothian Council has considered and granted 4 applications within the Binns Hill view-cone and considered 1 application within the Newton layby view-cone. It is believed that none of these proposals will have a significant visual impact on the landscape setting of the Forth Bridge, but the above provides context, and suggests that potential cumulative visual impacts, especially of renewables, should be monitored through the next management plan era.

3.7.3.4 Local Landscape Areas and the Capacity for Wind Farms

Local Landscape Areas are locally designated areas recognised for their high scenic value. These tend to be areas that are rural in character. Planning authorities frame policies within their Local Development Plans that aim to retain that character. Designated Local Landscape Areas that fall within the wider landscape setting of the Forth Bridge include:

West Lothian:

Forth Coast Special Landscape Area

City of Edinburgh:



- cSLA01 Southern Forth Coast
- cSLA04 Dundas Estate
- sSLA22 Craigie Hill (south of A90)

Fife:

- Ferry Hills
- Letham Hill
- South-West Dunfermline
- Inchcolm
- Cullaloe Hills and Coast

To inform the Local Development Plan, specific research has addressed, for example, the capacity for Wind Energy Development in West Lothian. A consultation published in 2011 found that only limited pockets around Livingston New Town, the M8 Motorway and around Black Law to the southwest had that potential. The area nearest the Forth shore and Hopetoun Estate was considered to be on the “highest scale of sensitivity” and therefore unsuited for the erection of wind turbines. Even if that were not the case, we have argued that wind turbines would not threaten the Outstanding Universal Value of the bridge.

Wind farms are not considered appropriate given Edinburgh’s urban context, surrounding greenbelt and countryside areas, and the presence of Edinburgh Airport. Small scale wind energy proposals are assessed against relevant LDP policy for sustainable energy. The local environment around Queensferry is subject to a range of local, national, and internationally designated sites applying to the built and natural environment.

Fife’s Low Carbon Supplementary Guidance (2019) includes a spatial framework for wind turbines exceeding 25 metres in height. This framework identifies much of the area surrounding the Forth Bridge in Fife as an area of significant protection, primarily due to its proximity to settlements and the presence of various heritage assets, including the Forth Bridge World Heritage Site. The surrounding landscape is characterised by ‘coastal hills’, ‘pronounced volcanic hills and craigs’, and ‘lowland hills and valleys’, and is classified as a ‘Landscape with Occasional Wind Turbines’. Some landscape capacity for wind turbines is identified further north-east, around the Cullaloe Hills. However, the guidance notes that cumulative capacity in this area has already been reached, limiting potential for future wind turbine development.



4 Current Management

4.1 Ownership

Network Rail is the owner of the bridge and responsible for its ongoing day-to-day maintenance and management. It is a non-profit making virtual plc funded by railway users and Government support. Network Rail is funded in Scotland by the Scottish Government through Transport Scotland.

4.1.1 Partnership Management Agreement

A Partnership Management Agreement (PMA) is in place to help deliver a proportionate and consistent listed building consent (LBC) process as part of Network Rail's management of the bridge.

See [1.3.1](#) for full details on the PMA.

4.2 Governance

There are 5 groups involved with developing and reviewing the Forth Bridge Management Plan.

Group or institution	Number of members/ personnel	Specific role, mandate and responsibilities to manage the property	Key instruments and powers to implement mandate	Extent of involvement in the decision-making process
Partnership Management Agreement	Members 4	Deciding which works on the Bridge will require Listed Building Consent	Planning regulations	High
Forth Bridges Forum	Members 7 Personnel up to 12	To ensure that local partners and stakeholders' interests remain core to and provide the strategic support of the three crossings of the River Forth at Queensferry. In addition, the Forum provides a mechanism for the collaboration and collective promotion of the Forth Bridge, Forth Road Bridge, Queensferry Crossing, and the surrounding	Local authority and government agency powers.	High



		environs, towns, and villages of the Forth Estuary		
Forth Bridge World Heritage Management Group	Members 13 Personnel up to 17	To oversee the Management Plan production and delivery of the Action Plan	Support of the Forth Bridge World Heritage Management Group members and Coordinator to oversee the Management Plan and Action Plan.	Medium
Forth Bridges Area Tourism Group	Members 7 Personnel up to 11	To implement the Forth Bridges Area Tourism Strategy 2019-2029, and associated Delivery Plan	Support of the Forth Bridges Tourism Group members and Coordinator to implement Delivery Plan.	Medium
Forth Bridge Management Plan Working Group	Members 6 Personnel up to 11	To update the Forth Bridge World Heritage Management Plan 2025-2035 and Action Plan 2025-2029	Support of Forth Bridges Forum partners to keep the Management Plan up to date	Medium

4.3 Stakeholders

Each governance group comprises the core partners and includes a different range of stakeholders. Key items are reviewed by stakeholders e.g. Council Committees and Directors at relevant times.

Forth Bridges Forum - Core Partners

Network Rail Scotland
Historic Environment Scotland
City of Edinburgh Council
Fife Council
Transport Scotland
VisitScotland
West Lothian Council

Plus, BEAR Scotland (the current South East Scotland Trunk Road Operating Company)

Forth Bridge World Heritage Management Group



This group includes a wider range of stakeholders including local Community Councils and history and heritage bodies.

Core Partners plus:

Community Councils – Queensferry & District, North Queensferry, Kirkliston

History & Heritage – North Queensferry Heritage Trust, Queensferry Heritage Trust, Queensferry History Group, The Briggers

Crown Estate

Forth Bridges Tourism Group

Core partners plus:

Interface with tourism businesses and wider East & Southeast Scotland Regional Visitor Partnership.

Website and social media channels access those with an interest in visiting and learning more about the Forth Bridges.

Forth Bridge World Heritage Management Plan Working Group

Core partners.



5. Analysis of Current Factors Affecting the Property

The following factors affecting the property have been highlighted to review:

Climate

Maintenance and Preservation

Risk Preparedness

State of Conservation of Attributes

5.1 Climate Profile

This section outlines a weather and climate profile of The Forth Bridge, drawing on data available at different scales. This includes national (Scotland) and regional (Scotland east) climate averages to place the climate experienced around The Forth Bridge in context, as well as local weather and climate observations relevant to The Forth Bridge. This information has been compiled by the Network Rail Weather Resilience and Climate Change Adaptation Strategy Manager.

5.1.1 Current Climate

Scotland experiences a temperate maritime climate characterised by mild and wet conditions, and that can be quite variable. Our climate is influenced by several factors, including its geographical location adjacent to the Atlantic Ocean and its proximity to continental Europe.

The east of Scotland experiences a climate slightly cooler on average than that of the west of Scotland. Much of Eastern Scotland is sheltered from the rain-bearing westerly winds making it drier on average (significantly so in some comparisons) to locations in the west of Scotland.

5.1.1.1 Temperature

Edinburgh has a slightly warmer annual average temperature (9.5°C) compared to the Scotland (7.7°C) and UK (9.1°C) averages. Seasonal variations are noted, with July being the warmest month and December the coolest. The city experiences around 42 days of air frost on average, fewer days of air frost due to its coastal proximity.

5.1.1.2 Rainfall

Edinburgh records an average annual rainfall total of 727.7 mm. This makes Edinburgh drier compared to the Scotland (1572mm) and Scotland east (1187mm) average annual totals.



And significantly drier than parts of the west of Scotland where annual average rainfall totals can exceed 3000mm. Rainfall is well-distributed throughout the year in Edinburgh, with April (40mm) being the driest month and October (75mm) the wettest.

5.1.2 Observed Climate Trends

There has been a sustained, and notable shift in elements of Scotland's climate. It is warmer than it once was, rainfall patterns have changed, and certain weather extremes are occurring more frequently, and are often more severe.

Scotland's 10 warmest years on record have all occurred since 1997. The average temperature for the last decade (2014-2023) was 1.02°C warmer than the 1961-1990 average, and the warmest year on record was 2022.

There has been an increase in rainfall over Scotland in the past few decades. The annual average rainfall in the last decade (2014-2023) was 10% wetter than the 1961-1990 average, with winters 29% wetter.

Mean sea level around the UK has risen by approximately 18.5cm from the start of the 20th century and the rate of sea level rise has increased over the last 30 years.

5.1.3 Future Climate Change

Projections of future changes in our climate show that because of the greenhouse gas emissions we have already emitted globally, our climate will continue to change in the coming years. Broadly speaking, we can expect:

Increased average temperatures across all seasons.

Warmer and drier summers.

Milder and wetter winters.

Increased frequency and intensity of heavy rainfall events.

Rising sea levels.

Reduced frost and snowfall.

Ultimately, the amount of change that occurs will depend on how successful we are in reducing greenhouse gas emissions in Scotland and globally.

We can use Global Warming Levels (GWLs) to help understand how different future changes in climate might impact the severity and frequency of certain climate indicators. Table 5.1.3 shows the changing nature of certain climate indicators for the Edinburgh City Council area if global temperatures were to rise by 1.5°C, 2°C and 4°C. In each case there is a central projection (the Median) and an uncertainty range (the Lower and Upper values are the 10th and 90th percentiles). Changes are relative to 1981-2000.



Table 5.1.3

Indicator	Description	Baseline 1981- 2000	Recent Past 2001- 2020	1.5°C GWL	2°C GWL	4°C GWL
Summer Days*	Daily maximum temperature >25°C.	2 1 to 2	4 3 to 6	5 3 to 8	6 5 to 10	20 15 to 28
Hot Summer Days*	Daily maximum temperature > 30°C	0 0 to 0	0 0 to 0	0 0 to 1	0 0 to 1	2 1 to
Extreme Summer Days*	Daily maximum temperature >35°C.	0 0 to 0	0 0 to 0	0 0 to 0	0 0 to 0	0 0 to 0
Frost Days*	Daily minimum temperature <0°C.	59 58 to 60	47 37 to 55	40 33 to 50	34 27 to 49	12 7 to 24
Icing Days*	Daily maximum temperature <0°C.	2 2 to 2	1 0 to 1	1 0 to 1	0 0 to 1	0 0 to 0
Growing Degree Days**	Daily mean temperature >5 °C. <i>Indicator of increased growth in agriculture and horticulture.</i>	1,423 1,421 to 1,427	1,601 1,571 to 1,699	1,693 1,620 to 1,729	1,814 1,718 to 1,850	2,274 2,156 to 2,365
Heating Degree Days**	Daily mean temperature <15 °C. <i>Indicator of increased energy demand for heating.</i>	2,670 2,669 to 2,672	2,462 2,410 to 2,507	2,383 2,331 to 2,421	2,235 2,185 to 2,376	1,825 1,766 to 1,964
Cooling Degree Days**	Daily mean temperature >22 °C. <i>Indicator of increased energy demand for cooling.</i>	4 4 to 4	9 8 to 12	11 8 to 16	13 11 to 20	42 34 to 60
Precipitation changes		Mm/day	Mm/day	% change	% change	% change
Summer precipitation rate		2.04 2.02 to 2.05	2.00 1.90 to 2.29	+2 -10 to +14	-1 -13 to +12	-18 -28 to -6
Winter precipitation rate		2.41 2.39 to 2.41	2.56 2.33 to 2.82	+6 -3 to +13	+6 -3 to +13	+14 +2 to +20
*These indicators are number of days the threshold is crossed in an average year **Degree Days are not a number of days, but the number of degrees the daily average temperature exceeds the threshold, each day, added up over a year						

5.1.4 Impact of the changing climate

The changing climate may have the following impact on the construction and maintenance activities associated with The Forth Bridge (Table 5.1.4).



Table 5.1.4

Climate Variable	Impact Trend	Impact description
Days of frost (air/ground); cold spells	Decreasing	There is a risk of weathering to brick, stone or encased concrete structures due to freeze thaw action which may result in reduced performance from falling debris
Various	Uncertain	There is a risk of reduced life expectancy of paint products due to more frequent and more intense storms, and chronic changes in climate, which may result in increased maintenance costs
Days of hot weather; hot spells	Increasing	There is a risk of thermal expansion due to more frequent and more intense high daily temperatures which may result in increased maintenance costs and potential damage to superstructure
Days of heavy rainfall; prolonged wet spells	Increasing (winter) Decreasing (summer)	There is a risk of ground movement due to build up of water pressure in retained material behind wing walls which may result in failure of susceptible assets
Sea-level rise; Coastal Erosion	Increasing	There is a risk of increased erosion, weathering and scour due to rising sea levels and more regular storm fronts which may result in increased maintenance costs and failure of susceptible assets
Various	Increasing	There is a risk of asset condition deteriorating due to the weathering effects of vegetation growth due to root action on concrete; soft brick; masonry assets which may result in deterioration of condition, reduction to asset life and increased maintenance and inspection costs.
Sea-level rise; Coastal Erosion	Increasing	There is a risk of wave damage/ erosion of the sea wall/defence due to increased sea/river water level, which may result in reduced level of protection and pose a safety and performance risk.
Sea-level rise; Coastal Erosion	Increasing	There is a risk of overtopping due to Sea level rise which may result in failure of susceptible assets
Sea-level rise; Coastal Erosion	Increasing	There is a risk of scour due to sea level rise which may result in failure of susceptible assets
Sea-level rise; Coastal Erosion	Increasing	There is a risk of Estuarine defences damaged or overtopped due to raised water levels and offshore winds/storm surge which may result in flooding of assets, which can result in asset damage, disruption to services and safety risks to passengers and staff on trains and to operational staff responding

5.2 Maintenance and Preservation

Network Rail recognises the Forth Bridge is an important part of Scotland's industrial heritage and a critical part of Scotland's national transport system. Following completion of the last major refurbishment in 2012, Network Rail has applied a bespoke Asset Management Plan to the bridge setting out the short-, medium- and long-term approach to managing the structure. This includes a regular maintenance strategy, in between major refurbishment programmes, with a dedicated contract to deliver an annual programme of maintenance work, commensurate with the structure's size and complexity. This requires a constant presence from the appointed contractor at the bridge, with the permanent office currently located at North Queensferry. This contract supports swift repair of emerging



defects that could impact on safety or train performance in addition to supporting access to the bridge for examination and stakeholder events. Defects which are not safety or performance critical are monitored to be addressed at the next major works intervention.

Funding for Network Rail's capital expenditure programme for the bridge is provided through five-year Control Period (CP) financial settlements. These plans are subject to scrutiny of the Office of Rail and Road (ORR) and Transport Scotland (TS) and are publicly accessible. The works undertaken/planned since 2014 are:

In CP5 (2014/15 – 2018/19) the budget for routine maintenance was c.£1m per year delivering minor steel repairs throughout the structure.

In CP6 (2019/20 – 2023/24) the budget for routine maintenance was again c.£1m per year with repairs focussed on the way beam troughs carrying the track timbers. In addition, during CP6 the North Approach Viaduct was fully refurbished, comprising a full blast clean and full repaint to modern painting specification, completed at a cost of c.£6m. The hoist providing access up the North Cantilever tower was also replaced.

For CP7 (2024/25 – 2028/29) an increased annual maintenance budget close to £2m was included in the CP7 Strategic Business Plan to reflect the increasing time elapsed since the refurbishment. In addition, plans are currently underway to repair and paint the wind fence on the North Approach Viaduct at track level, and to carry out water management to the deck of the same.

Beyond CP7, Network Rail is evaluating the condition and performance of the glass flake epoxy coating applied. Although designed to last 25 years, based on surveys Network Rail determine this paint system is generally performing at least towards the upper limit of its intended lifespan. This will drive the programme for the next major intervention. In addition, Network Rail is considering other factors in the management of the bridge such as the risk of a shipping collision and the future impact of climate change through a Climate Adaptation Pathway approach. These factors will influence Network Rail's approach for funding in CP8 (2029/30 – 2033/34) through consultation with Office of Rail and Road and Transport Scotland.



5.3 Risk Preparedness

Factor affecting the property	Current/Potential	Origin: Inside/Outside	Trend: Increasing/Stable/Decreasing	Severity of impact	Frequency of impact	Attribute(s) affected
Physical Risks						
Climate Change Impact	See Table 5.1.4					Coating, Fabric
Fire	Potential	Outside & Inside	Stable	Medium	Very low	Form, Function
Shipping Collision risk *	Potential	Outside	Stable	Medium/High	None	Form, Function
Setting Risks						
Development Pressure	Potential	Outside	Increasing	Low/Medium	Low/Medium	Kinetic Experience
Weakened protection through planning legislation and guidance	Current	Outside	Stable	Low	Low	Scale, Kinetic Experience
Antisocial behaviour in adjacent car parks	Current	Outside	Increasing	Medium	High	Symbolism
Organisational Risks						
Loss of institutional knowledge through personnel movement/retirement	Current	Inside	Increasing	High	Increasing	Engineering Achievement, Fabric
Partner stakeholder reduced focus on Forth Bridges	Potential	Inside	Stable	Medium	Low	Engineering Achievement
Disenfranchised local stakeholders due to lack of	Potential	Inside	Stable	Medium	Low	Engineering Achievement



input/progress						
Budget constraints for conservation and maintenance	Potential	Inside & Outside	Stable	Low	Low	Materiality
Budget availability to maintain access and views	Current	Inside & Outside	Increasing	Medium	Medium	Kinetic Experience, Engineering Achievement
Continued pressure on external funding for programmes	Current	Outside	Increasing	Medium/High	Low	Engineering Achievement, Kinetic Experience

- In response to the Baltimore bridge collision in 2024, the harbour authority for the Forth, Forth Ports, has reduced the speed limit for commercial vessels passing beneath the Forth Bridges from 12 knots to 8 knots and imposed a mandatory tug escort for vessels over 180m.

5.4 State of Conservation of Attributes

Attribute	Indicators	Factors affecting the attribute	State of Conservation of the attribute (Good/Low concern/High concern/Critical)	Trend (Increasing/Stable/Decreasing)	Management measures
Form	Physical changes to the structure	Conservation and maintenance activities	Good	Stable	Grade A listed structure protection through planning, monitored through PMA
Scale	Altered since Queensferry Crossing built	Changed from some perspectives since Queensferry Crossing	Good	Stable	Complementary not competing, protection through 10 view-cones in planning
Function	Number of trains	Pandemic lowered use temporarily, abolition of peak Scotrail	Low Concern	Increasing (use)	Network Rail and ORR monitor scheduling



		fares in September 2025 may increase demand, transport de-carbonising efforts to reach net zero			
Fabric	Volume of steelwork changed during conservation	Minor replacements through maintenance	Good	Stable	Negligible volume of steel replaced during conservation/ maintenance
Coating	Volume of paint, colour stability	Climate, paint technology, ultra-violet light impact	Low concern	Stable	Ability to see primer monitored during Network Rail inspections
Symbolism	Usage of image	Public perceptions, trend since 1890	Good	Stable	Maintenance of Forth Bridges website and social media presence
Kinetic experience	Views by travellers	New development, vegetation management	Good	Increasing	Traffic on road bridges, flight paths, view-cones, vegetation management
Engineering Achievement	Education programme usage, continued events	Financial and human resource	Low concern	Stable	Forth Bridges Forum to allocate resources

6. Management Vision and Objectives

6.1 Vision

THE VISION: The Forth Bridge World Heritage Site will be managed in a sustainable manner, to conserve, enhance and present its Outstanding Universal Value locally, nationally and internationally. The aim is to balance the needs of conservation, operation, and access alongside the interests of local communities, whilst also contributing more generally to sustainable economic growth by:

- involving local communities around the property.
- attracting and sustainably managing visitors to the area.
- adding value to the local and national economy.
- developing opportunities for education and learning.

6.2 Pre-draft Consultation Feedback on Vision

The online pre-draft engagement in June 2025 included a question about areas of focus for the new Management Plan. A fuller summary is contained in Appendix F.

"What do you think should be the main areas of focus for the Forth Bridge World Heritage Management plan over the next 10 years, in relation to achieving its vision?"

Here are the key themes identified from the responses which are carried into Objectives and Action Plan 2025-2029 (Appendix A):

Bridge Conservation & Maintenance

Mentions: 42

Focus: Preserving the bridge's structure, appearance, and historical integrity.

Income Generation & Economic Value

Mentions: 5

Focus: Using tourism and events to fund conservation and support the local economy.

Sustainability & Climate Resilience

Mentions: 10

Focus: Addressing climate change impacts and promoting sustainable practices.

Tourism & Visitor Experience

Mentions: 4

Focus: Enhancing the visitor journey and promoting the bridge as a destination.

Education & Community Engagement



Mentions: 3

Focus: Involving schools and local communities in the bridge's heritage.

6.3 Objectives

In 2015, UN Member States translated their vision of sustainable development into a blueprint for achieving it: [the 2030 Agenda for Sustainable Development](#). Its [17 Sustainable Development Goals](#) —cover the three dimensions of sustainable development: the economy, social development and the environment.

The objectives of the Forth Bridge Management Plan reference the relevant UN Sustainable Development Goals (SDGs).

In addition, the themes from the Action Plan 2025-2029 (Appendix A) are referenced alongside each objective.

Action Plan Theme (s)	Objectives	UN Sustainable Development Goal
Presentation & Tourism, Communities	1 Develop and support initiatives to increase active travel and physical/mental well-being.	 Health - United Nations Sustainable Development
Future Generations	2 Enable more research that supports our understanding of the World Heritage Site. 3 Collections and artefacts will be identified, cared for, and used to tell the stories of the Forth Bridge. 4 Use the education programme to reach and inspire the next generation of engineers.	 Goal 4: Education - United Nations Sustainable Development

Presentation & Tourism	5 Enhance access to the Forth Bridge in a sustainable way and present more people with more opportunities to experience the World Heritage Site, understand its significance, and support its protection. 6 Maintain a sustainable tourism strategy with economic and other benefits for the local communities.	8 DECENT WORK AND ECONOMIC GROWTH  Goal 8: Economic Growth - United Nations Sustainable Development
Protection	7 Conserve and maintain the Forth Bridge as a key piece of Scotland's transport infrastructure.	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE  Goal 9: Industry, Innovation and Infrastructure - United Nations Sustainable Development
Communities	8 Maintain access to quality public transport and its integration with the local communities. 9 Work with local communities on amplifying World Heritage Site awareness and monitoring the impact of WHS status locally.	11 SUSTAINABLE CITIES AND COMMUNITIES  Cities - United Nations Sustainable Development Action 2015

Protection	10 Develop and implement objectives for climate change adaptation and mitigation, based on the inspections by Network Rail and the outcomes of assessments of climate vulnerability.	 Goal 13: Climate Change - United Nations Sustainable Development
Management & Governance, Communities	11 Work collaboratively with stakeholders to deliver the Forth Bridge World Heritage Site Management Plan.	 Goal 17: Global Partnerships - United Nations Sustainable Development

APPENDICES

Appendix A: Action Plan 2025-2029
Appendix B: Maps
Appendix C: Terms of Reference for Management Groups C.1 Forth Bridges Forum C.2 Forth Bridge World Heritage Management Group C.3 Forth Bridges Area Tourism Group
Appendix D: View-cones Monitoring
Appendix E: Summary of selected completed actions from the 2015 Management Plan
Appendix F: Summary of the Pre-draft Engagement feedback
Appendix G: Abbreviations

