

5 Issues, Challenges and Opportunities

Section 5.0 is structured to set out issues and constraints at the catchment-wide and town-wide scales, and the opportunities for those functional areas, followed by issues, constraints and opportunities for each of the Character Areas.

Annotated basemaps in this section show locations for planned projects in specific Character Areas, and opportunities are marked with a code on the annotated basemap in section 5.3.

5.1 Catchment-wide and Town-wide: Key issues and constraints

High level issues and constraints of relevance to the catchment and town-wide functional areas are identified below, with reference to the following themes where appropriate:

- river channel movement
- flood risk management.
- missing links
- collaboration
- loss of habitat and wildlife
- management
- contamination/Pollution (water quality)

5.1.1 Description and issues

- the catchment of the River Tone has an area of approximately 385km² and lies between the Quantock Hills, Brendon Hills and Blackdown Hills
- the River Tone and its tributaries and floodplain have been substantially modified by previous engineering works (artificial banks, water level control structures etc
- the land management and farming practices across the catchment have given rise to more sediment loaded surface water runoff ending up in the rivers, streams, and culverts
- the River Tone has been straightened and realigned in many places and the tributaries have been modified or culverted within urban settings to make space for development
- bridges and urban areas confine any lateral mobility and prevent the river naturally adjusting its course

- the river is poorly connected to the floodplain due to the presence of high banks (with footpath) disconnecting it from the lowlands to the northeast which limits its potential flood attenuation.
- the river flows into the area of the Somerset Levels and Moors downstream of the M5 motorway where it spills into low lying adjacent farmland prior to discharge to the Bristol Channel

Key Issues/Constraints (Present)

- the floodplain has historically been built on in many places
- silt loading from the upper catchments lead to calls for de-silting
- there is only reactive maintenance upstream of Taunton
- navigation and water travel routes through Taunton are hindered by raised bed level, water level control structures and low bridges
- lack of awareness of riparian responsibilities
- emerging understanding of implications of climate change but limited funding available

- blockage of outfalls to the River Tone
- agricultural runoff within the wider catchment has led to increased phosphates and nutrient input into the river, causing eutrophication and reducing water quality downstream
- conflicts between watercourse management requirements for biodiversity and other functions e.g. drainage and recreation
- habitat loss and degradation resulting from development and land management practices in the catchment including agriculture and flood management
- loss and fragmentation of supporting habitats in the wider catchment impacting the natural functioning of catchments and watercourse
- physical modifications to channels including weirs, culverts, flood defences and other structures affecting value of river corridor as habitat and movement resource for wildlife
- presence of legally protected species (including bats, otter and water vole) and associated potential constraints on proposals and management

- indirect impacts from adjacent land uses (including drainage, roads, industry and housing) including light pollution and disturbance reducing quality and functionality of watercourse habitats for wildlife
- presence of protected species may require pre-commencement surveys, mitigation licensing and method of works
- employ pollution-control measures during works

Key Issues/Constraints (over next 25 years):

- possible reductions in funding for reactive works
- long term maintenance and management of the riverbanks and tributaries
- siltation of the River Tone through Taunton
- impacts of climate change on the waterways, urban environment, flood risk and ecology
- ecological constraints on proposed enhancement works include potential presence of invasive non-native species and protected species

- land use pressure in catchment increasing importance of river corridor as habitat resource for wide range of species including invertebrates, bat, birds, otter and water vole
- increased spread of invasive non-native invasive species and plant and animal diseases impacting the diversity of habitats and species present
- climate change resulting in increased temperatures impacting the range and distribution of habitats and species present
- climate change resulting in lower river flows reducing dilution and dispersion of pollutants such as nutrients, and increasing eutrophication and algal blooms
- increased rainfall intensity increasing runoff of pollutants from land and frequency of storm overflows from combined sewerage systems
- potential for increased confusion over responsibilities unless guidance is provided

5.1.2 Management & Maintenance issues

- existing water's edge buildings may require current silt and water levels to be maintained to support them structurally
- silt movement poses a contamination issue (phosphates)
- watercourse required to be clear for effective flood conveyance which may not be compatible with enhanced biodiversity or structures built or moored in the water
- siltation of the River Tone through Taunton and canal limits navigation
- access to the river for maintenance is limited and building density makes it harder to access
- lack of waste disposal along the waterways (No litter bins between Hankridge Nature Reserve and Town centre)
- control the spread of Himalayan Balsam and other non-native invasive species

Refer to MMP report for more detail on Management actions indicated on base maps in the MMP report.

5.1.3 River channel movement / Flood risk management

- limited water depth for navigation in summer
- changes to river corridor would need thorough modelling before changes could be made
- if weir removal is proposed, consideration needs to be given to silt damage downstream and also potentially contaminated silt content

5.1.4 Public access

- gaps in access, surfacing and loss of connectivity
- lack of formal access for water users, fishing platforms, kayakers etc.
- missing links over the river



5.1.5 Loss of habitat / River channel movement and recreation constraints

- water level Control Structures required for navigation and ecology

5.2 Catchment-wide and Town-wide: Opportunities

A summary of the high-level strategic opportunities that have been identified along the Taunton waterways are provided below. These are based on a holistic understanding of the river and are intended to have multiple benefits for people and nature where possible. Opportunities are grouped according to key themes.

- Community Engagement
- Energy & Climate
- Habitat Creation & Wildlife
- Public Access
- Recreation and Culture

- Make space for water / slow the flow
- Catchment-wide opportunities

Community engagement opportunities

- public connection with Taunton's waterways- through engagement with local community and educational groups, including schools, friends of Longrun Meadow and friends of French Weir Park. Consult on strategic ideas and prioritised projects

Energy and climate opportunities

- opportunity to utilise the river for renewable energy and heating through hydropower and water source heat pumps. Only considered feasible if major landowner(s) engage as part of their decarbonisation strategy
- opportunities for large scale tree planting to manage water flow and deliver wider benefits including biodiversity enhancement and carbon sequestration

Rehabilitation of rivers and habitat creation through Biodiversity Net Gain

- opportunity for native tree planting, where possible in accordance with local strategies such as the Somerset Tree Strategy. (refer to PP 12)

Public access catchment opportunities

- opportunity to develop a targeted lighting strategy that facilitates public access whilst protecting species and habitats

Recreation and culture opportunities

- a network of routes that links communities with the waterways including Mobility Hubs and east-west from Longrun Meadow Park to Firepool Weir (Linear Water Park Concept / green corridor West to East)
- information boards showing history of the river and associated wildlife, protected species and habitats.



Make space for water/slow the flow opportunities

- W1 - Restore the floodplain (where there is connectivity and space).
- W1 - Wetland creation and storage upstream of Taunton will reduce peak volumes, reduce sediment loaded runoff reaching the river Tone, reduce nutrient/phosphate input and improve water quality and biodiversity across the catchment
- W2 - Utilise existing water storage areas more effectively to provide improved benefits for amenity and flood risk
- plant trees along flow pathways to slow the flow and reduce siltation. This will also enhance habitat diversity and connectivity within the riparian corridor for wildlife and protected species
- retrofit SuDS to relieve pressures on infrastructure and provide other multi benefits (water quality improvements, reduce nutrient input, amenity, wellbeing, biodiversity, heat reduction)
- opportunity for a formal navigation authority in place on the Tone

5.2.1 Planned Projects

There are several Taunton strategic flood alleviation improvements projects planned (reference Taunton Flood Risk Management Strategy 2019/2020)

Listed per priority order:

- Longrun Meadow - optimise water storage, increasing the storage capacity to remove excess water from the river, controlling when it floods and when that water is released back into the Tone through new embankments, inlet and outlet structures
- raised / new defences on the Tangier Tributaries and the River Tone (left bank) from Frieze Hill to Town Bridge
- raise Firepool Lock gates, increase the height of the defences between Firepool and Obridge (left bank)
- a new pumping station at Bathpool
- river restoration and flood storage at Vivary Park
- upstream storage at Bradford on Tone

- raising Castle Street Bridge & Bus Station Footbridge
- Mill Stream flow diversion

Additionally:

- Hills to Levels Project / Highways Referrals (FWAG) - Hills to Levels is a holistic catchment management approach across catchments in Somerset, aiming to 'slow the flow' to reduce flood risk, reduce erosion, improve water quality, deliver wider environmental benefits and increase resilience on the floodplain. Through land management there is a reduction of sediment loaded runoff onto the highway
- Wellington Waterways Project (Somerset Council) - 2024 - proposes a vision for reducing flood risk to key heritage assets of Tonedale (Tonedale Mill and Tone Works), and wider Wellington, alongside delivering wider benefits for nature and the community. The enhancement of existing attenuation features brings flood risk benefit

- Surface Water Management Plan (Wessex Water / Somerset Council) -2025 – approach to managing surface water across the county and potentially influence policy decisions - identifies various flood risks and outlines the preferred surface water management strategy to mitigate these risks
- Asset Database Project (Somerset Council) -2024 - single source that maps and understands all of the water assets which require inspection and maintenance across the county
- SuDS Inspectors Monitoring and Mapping (Somerset wide – SRA)- Existing SuDS schemes on developments, monitoring their effectiveness following implementation and mapping where they all are. Inspection of SuDS at various points during their construction by a SuDS Inspector provided by Somerset Council and funded by Somerset Rivers Authority
- Local Nature Recovery Strategy -2024 - The Somerset Local Nature Recovery Strategy (in prep) will set local priorities for nature recovery and identify opportunities for co-ordinated action to achieve those priorities
- Tree Cover Project across Catchment, including Somerset Tree Strategy – A ten-year plan to enhance and protect Somerset trees and woodland. Somerset Tree Strategy (2023) sets out how Somerset’s treescapes can embrace ecology, climate, community and how the county can manage and protect its existing and future trees.
- Cycleways Strategy Plan - Connecting safe cycle pathways across the town and to public transport
- Development at Bridgwater Tidal Barrier includes a requirement to improve fish passes upstream including at Firepool and French Weir
- Renovation planned to Somerset spacewalk - a sculpture trail model of the Solar System, displaying a model of the Sun and its planets in their proportionally correct sizes and distances apart
- Opportunity for engagement with Homes England who may be able to unlock potential of difficult to deliver sites
- Potential for innovative development, such as buildings on stilts, to unlock difficult development sites

5.3 Character Area 1: Longrun Meadow Park

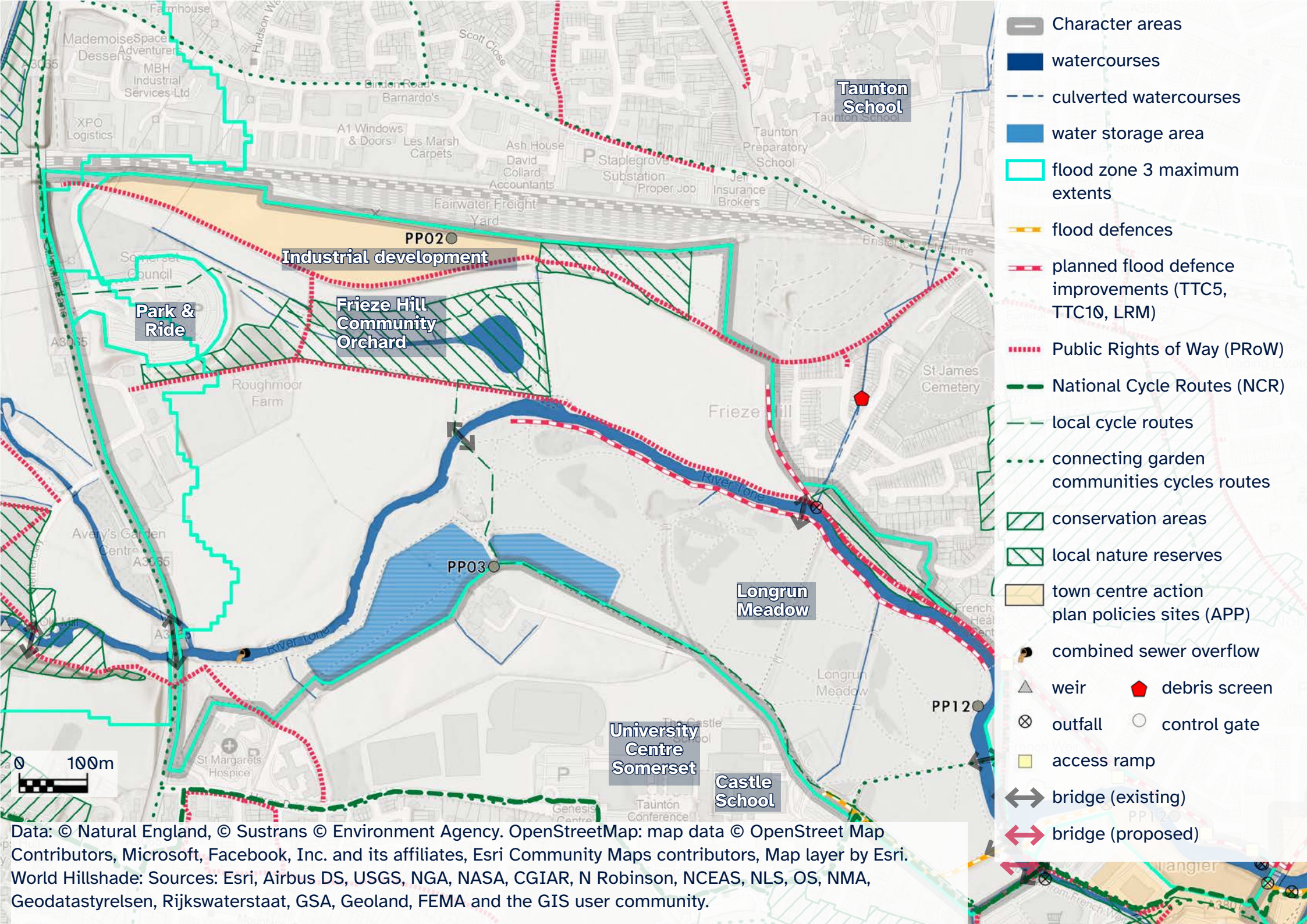
The river is poorly connected to the floodplain due to the presence of high banks (with footpath) disconnecting it from the wetland to the south. This is one of the better areas for floodplain connection. This is an area that does not currently receive any planned maintenance due to limited flood risk. Riparian owners are usually asked to manage any maintenance requirements e.g., fallen trees. There are also some significant erosion issues which would benefit from planting to stabilise the banks.

Key Maintenance Issues/Constraints (over next 25 years) (Refer to the MMP)

- the Environment Agency will cease to maintain the water level control structures through Taunton (Firepool Weir/French Weir) as these are not flood management structures and therefore, will not be funded to provide this function
 - siltation raises bed level
 - French Weir Structure
 - climate change – too much water for short periods and not enough water for longer periods
 - access for maintenance is limited
 - bank erosion
 - culverted tributaries (north) prone to blockage and localised flooding
 - phosphates and potential contaminants within silt
 - securing ongoing access to the river for maintenance
- ecological constraints on proposed enhancement works include potential presence of invasive non-native species and protected species. Ecological surveys would be required prior to works commencing and protected species licences may be required
 - agricultural runoff in the wider catchment has led to increased phosphate and nutrient input into the river causing eutrophication and reducing water quality downstream

Planned Projects: PP02, PP03, PP12 (refer to plan)

- PP02 - Allocated development site (industrial) to the north of Park and Ride)
- PP03 - Flood Risk Management Project Planned (reservoir storage area)
- PP12 Opportunity for native tree planting, where possible in accordance with local strategies such as the Somerset Tree Strategy.



- Character areas
- watercourses
- culverted watercourses
- water storage area
- flood zone 3 maximum extents
- flood defences
- planned flood defence improvements (TTC5, TTC10, LRM)
- Public Rights of Way (PRoW)
- National Cycle Routes (NCR)
- local cycle routes
- connecting garden communities cycles routes
- conservation areas
- local nature reserves
- town centre action plan policies sites (APP)
- combined sewer overflow
- weir
- debris screen
- outfall
- control gate
- access ramp
- bridge (existing)
- bridge (proposed)

Data: © Natural England, © Sustrans © Environment Agency. OpenStreetMap: map data © OpenStreet Map Contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri. World Hillshade: Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA and the GIS user community.

5.3.1 Character Area 1: Opportunities

The opportunities are grouped under the categories:

- Community Engagement (CA)
- Energy and Climate (E)
- Make Space for Water/Slow the Flow (W)
- Public Access (PA)
- Habitat and Wildlife (H)
- Recreation and Culture (RC)
- Planned projects (PP)

The proposed Longrun Meadow water storage project (PP03) represents a major opportunity for investing in flood risk management in a way that delivers multiple additional benefits if a collaborative design and planning approach is adopted.

Community Engagement:

- CA01 - Opportunity to engage with and utilise local community and educational groups, including

schools, friends of Longrun Meadow and friends of French Weir Park

- CA02 - Reinvigorate 'Routes to the River Tone Project' (HLF), 2014-2017 / plan similar project again
- CA03 - Widen offer by Centre for Outdoor Activities French Weir Park, run by Taunton Adventurous Sports and Canoe Club (non-profit organisation). They offer various water-based activities including kayaking, canoeing and stand-up paddle boarding
- CA04 - Love your river campaign with engagement with large retailers such as Tesco's

Energy and Climate

- E01 - Opportunity to utilise the river for renewable and heating through hydropower and water source heat pumps

Make Space for Water/Slow the Flow

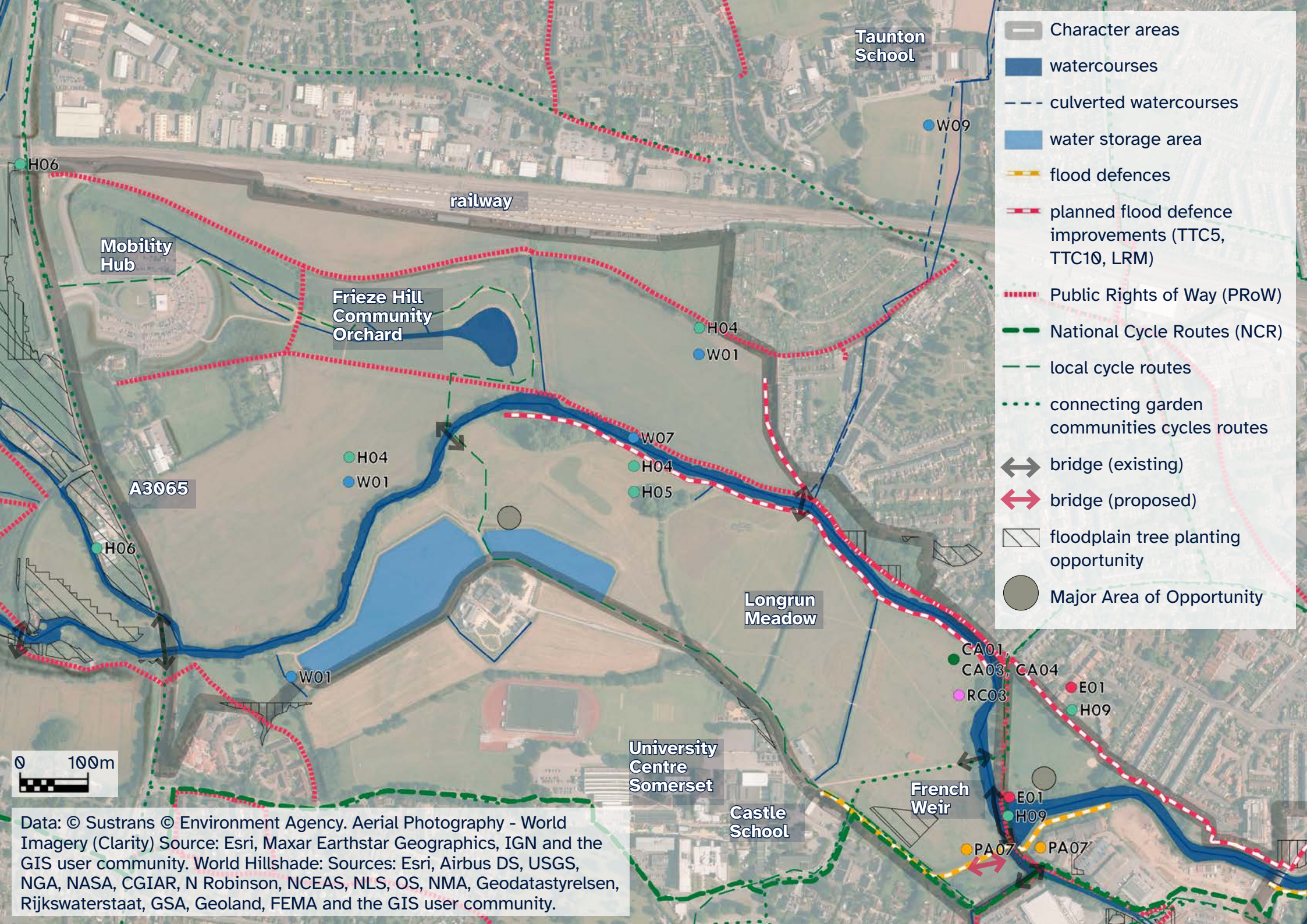
- W01 - Consider the use of adjacent land as this would enable further works with multiple benefits including channel enhancements (enhancing existing pool

and riffles and creating new ones by importing material). If land is available, assess opportunities to create some online and offline ponds with reed planting to offset road run off as well as phosphate stripping. This would also enhance habitat creation and connectivity within the riparian corridor for wildlife and protected species

- W07 - Opportunity for re-profiling of bank and creation of backwaters: to reduce flow and increase area for marginal vegetation, providing greater opportunities for invertebrates, amphibians, fish, otter and water vole.
- W09 - Opportunities for de-culverting watercourses

Public Access

- PA07 - New cycle bridge – opportunity for re-routing cycle route away from Marshalsea Walk (round the side of Tesco) via a new path along the top of the flood defences and a new bridge near the weir



- Character areas
- watercourses
- culverted watercourses
- water storage area
- flood defences
- planned flood defence improvements (TTC5, TTC10, LRM)
- Public Rights of Way (PRoW)
- National Cycle Routes (NCR)
- local cycle routes
- connecting garden communities cycles routes
- bridge (existing)
- bridge (proposed)
- floodplain tree planting opportunity
- Major Area of Opportunity



Data: © Sustrans © Environment Agency. Aerial Photography - World Imagery (Clarity) Source: Esri, Maxar Earthstar Geographics, IGN and the GIS user community. World Hillshade: Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA and the GIS user community.

Habitat Creation and Wildlife

- H04 - Opportunities for BNG habitat creation within Longrun Meadow, diversifying habitats on site and benefiting protected species: grassland enhancement; wetland creation; woodland and scrub planting
- H05 - Opportunity for the creation and installation of habitat structures for wildlife, including bird and bat boxes, reptile and insect houses
- H06 - Opportunity to create green links as recognised in the GI strategy and the Garden Town Vision document
- H09 - Provide improved fish pass at French Weir

Recreation and Culture

- RC03 - Amenity asset for recreation / lake feature

Water attenuation and biodiversity net gain





Tree planting and meadow planting



Wildlife habitat & walking routes



Interpretation and education



Access for watersport



Improved public access



Provision for cycling

Opportunities Longrun Meadow (precedents)

5.4 Character Area 2- Waterside Living (West)

Key Maintenance Issues/Constraints (Present)

- flood risk
- water level Control Structures required for navigation and ecology
- siltation of the River Tone through Taunton linked to water control structures, flow rates and channel size
- access to the river for maintenance is limited with urban landscape tucked close to the river edge
- differing opinion on levels of maintenance
- understanding of riparian responsibilities
- visual amenity – service pipes crossing the river and spaces beneath bridges
- navigation – silt bars and insufficient water depth
- lack of formal access for water users, fishing platforms, kayakers etc.

- light pollution onto riparian corridor from adjacent buildings, reducing effectiveness as a corridor for wildlife
- agricultural runoff within the wider catchment has led to increased phosphates and nutrient input into the river; causing eutrophication and reducing water quality down-stream

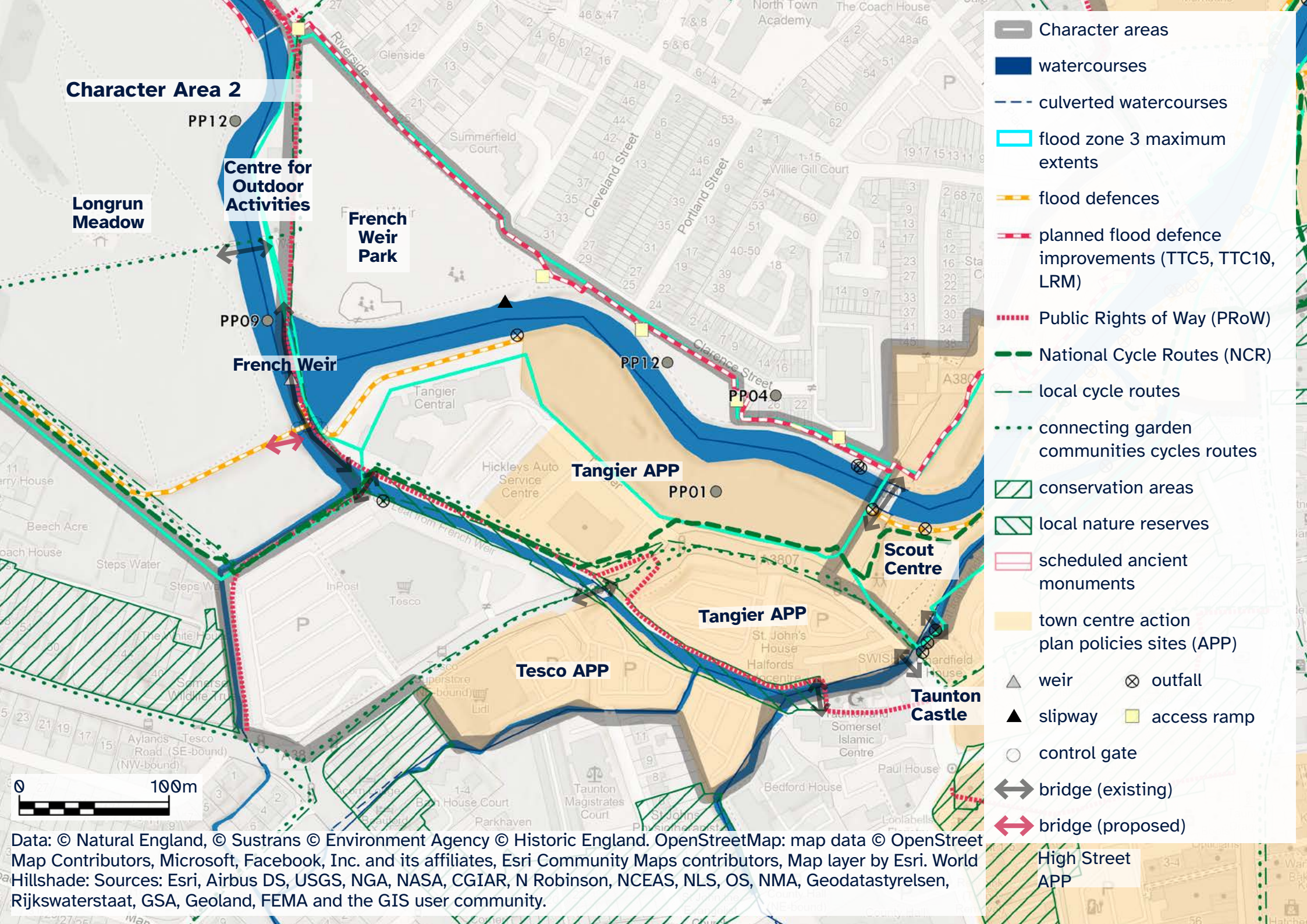
Key Maintenance Issues/Constraints (over next 25 years)

- The Environment Agency will cease to maintain the water levels control structures through Taunton (Firepool Weir/ French Weir) as these are not flood management structures, and therefore, will not be funded to provide this function
- maintenance of the riverbanks. Channel is engineered with hard defences (riprap) at the moment which requires regular inspection and remedial works where damaged
- siltation of the River Tone through Taunton
- climate change – too much water for short periods and not enough water for longer periods

- development of allocated sites along the water's edge
- dewatering / lowering of water levels could have consequences to waterside structures (stability)
- ecological constraints on proposed enhancement works include: potential presence of invasive non-native species and protected species. Ecological surveys would be required prior to works commencing and protected species licences may be required
- phosphates and potential contaminants within silt

Planned Projects:

- PP01- Land contamination on former industrial site (former gasworks, landfill site and Tangier) posing remediation issues.
- PP09 - Development at Bridgwater Tidal Barrier has a requirement to improve fish passages upstream including at Firepool and French Weir.
- PP12 - Tree cover project across catchment including Somerset Tree Strategy.



Character Area 2

PP12

Centre for Outdoor Activities

Longrun Meadow

French Weir Park

PP09

French Weir

PP12

PP04

Tangier APP

PP01

Scout Centre

Tangier APP

Tesco APP

Taunton Castle

- Character areas
- watercourses
- culverted watercourses
- flood zone 3 maximum extents
- flood defences
- planned flood defence improvements (TTC5, TTC10, LRM)
- Public Rights of Way (PRoW)
- National Cycle Routes (NCR)
- local cycle routes
- connecting garden communities cycles routes
- conservation areas
- local nature reserves
- scheduled ancient monuments
- town centre action plan policies sites (APP)
- weir
- outfall
- slipway
- access ramp
- control gate
- bridge (existing)
- bridge (proposed)



Data: © Natural England, © Sustrans © Environment Agency © Historic England. OpenStreetMap: map data © OpenStreetMap Contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri. World Hillshade: Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA and the GIS user community.

High Street APP

5.4.1 Character Area 2: Opportunities

The opportunities are grouped under the categories:

- Community Engagement (CA)
- Energy and Climate (E)
- Make Space for Water/Slow the Flow (W)
- Public Access (PA)
- Habitat and Wildlife (H)
- Recreation and Culture (RC)
- Planned projects (PP)

There is a significant opportunity at French Weir to plan and design collaboratively for its long term functionality, to continue to deliver water management requirements but also benefits related to biodiversity, connectivity and community awareness.

Community Engagement

- same as in Character Area 1

Energy and Climate

- E01 - Opportunity to utilise the river for renewable and heating through hydropower and water source heat pumps

Make Space for Water / Slow the Flow

- W05 - Ensure high-quality SuDS and water management on proposed development sites
- W09 - Opportunities for de-culverting watercourses

Public Access

- PA07 - New cycle bridge – opportunity for re-routing cycle route away from Marshalsea Walk (round the side of Tesco) via a new path along the top of the flood defences and a new bridge near the weir
- PA11 - Tesco site: continuous public access along the Mill Stream frontage, improvements to Marshalsea Walk along the northern site boundary and the footbridge over Mill Stream, provision for new pedestrian and cycle routes from Marshalsea Walk and French Weir
- PA12 - Mill Stream inlet - Make this structure more accessible
- PA19 - Opportunity for new riverside path between gas works (allocated with policy support)

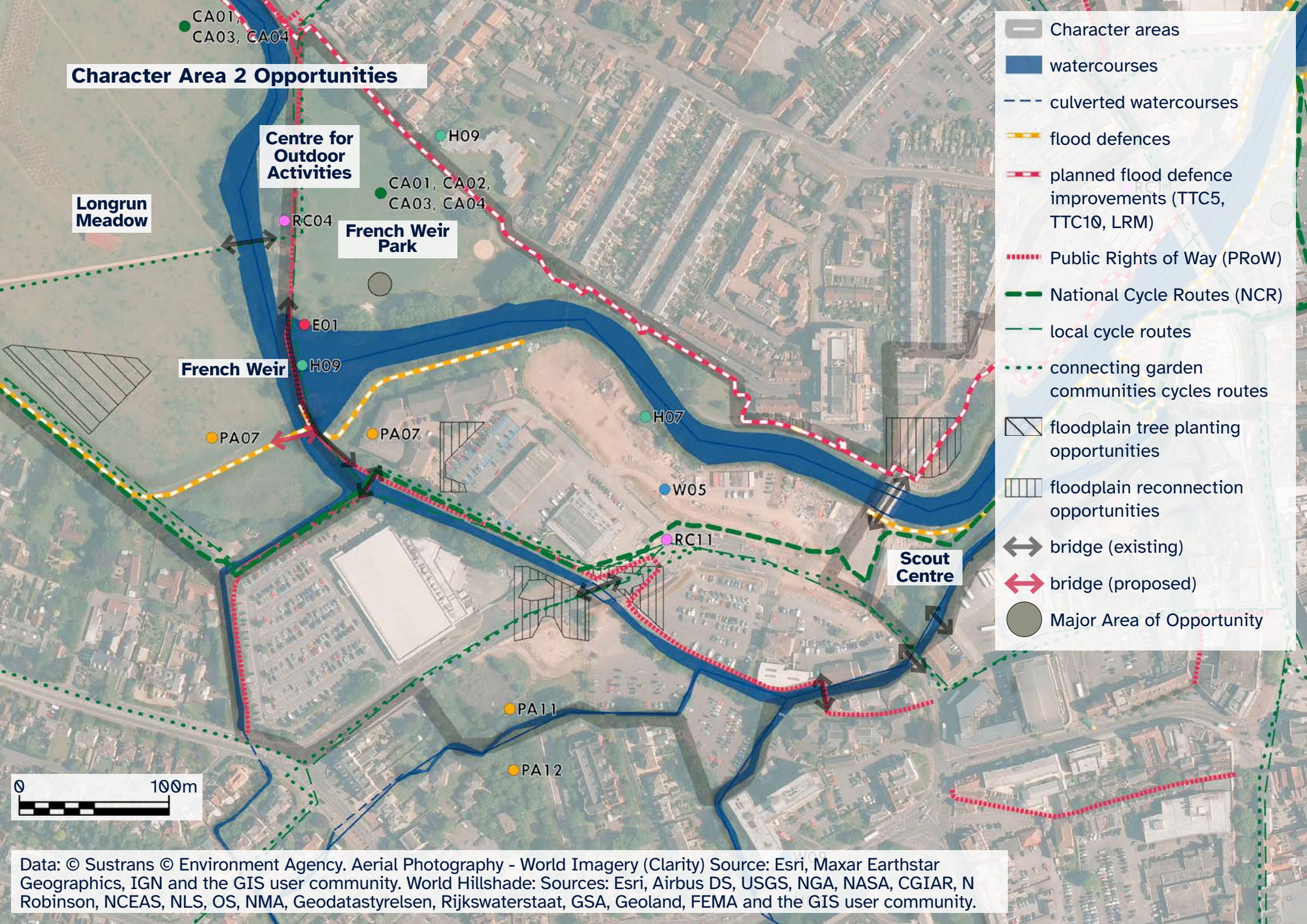
Habitat Creation and Wildlife

- H06 - Opportunity to create green links as recognised in the GI strategy and the Garden Town Vision document
- H07 - Retain, enhance, and reinstate the 8m riparian zone planting along watercourse edge. [for protected species (otter, water vole, bats). Potential for register the zone as BNG offset.]
- H09 - Provide improved fish pass (on both Firepool and French Weir)

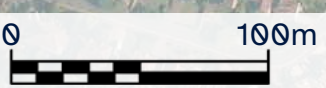
Recreation and Culture

- RC01 - Opportunities for events along the Waterways, including nature-focused riverside walks and linear park runs for example
- RC04 - New viewing platform over French Weir Park
- RC11 - Creation of multitude of green SuDS throughout new developments to give opportunities for community spaces and/or water play

Character Area 2 Opportunities



- Character areas
- watercourses
- culverted watercourses
- flood defences
- planned flood defence improvements (TTC5, TTC10, LRM)
- Public Rights of Way (PRoW)
- National Cycle Routes (NCR)
- local cycle routes
- connecting garden communities cycles routes
- floodplain tree planting opportunities
- floodplain reconnection opportunities
- bridge (existing)
- bridge (proposed)
- Major Area of Opportunity



Data: © Sustrans © Environment Agency. Aerial Photography - World Imagery (Clarity) Source: Esri, Maxar Earthstar Geographics, IGN and the GIS user community. World Hillshade: Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA and the GIS user community.



Rills and water play



Strong frontage overlooking water



Strong green corridors & tree planting



Positive relationship to water



Cafés and meeting places



Strong overlooking and green corridors.



Active travel routes alongside water

Opportunities waterside living (west), precedents

5.5 Character Area 3: Town Centre

Key Maintenance Issues/Constraints (Present)

- Siltation of the River Tone through Taunton
- Water level Control Structures required for navigation only plus ecology
- Access to the river for maintenance is limited due to development close to waters edge
- Differing opinion on levels of maintenance
- Understanding of riparian responsibilities
- Lack of formal access for water users, fishing platforms, kayakers etc.
- Onward navigation to the Canal hindered by siltation
- Firepool Weir sluice structures are inoperable
- Footpath is narrow past the cricket ground
- Light pollution onto riparian corridor from adjacent buildings, reducing effectiveness as a corridor for wildlife

- Water quality related to phosphates and nutrient input to the river upstream

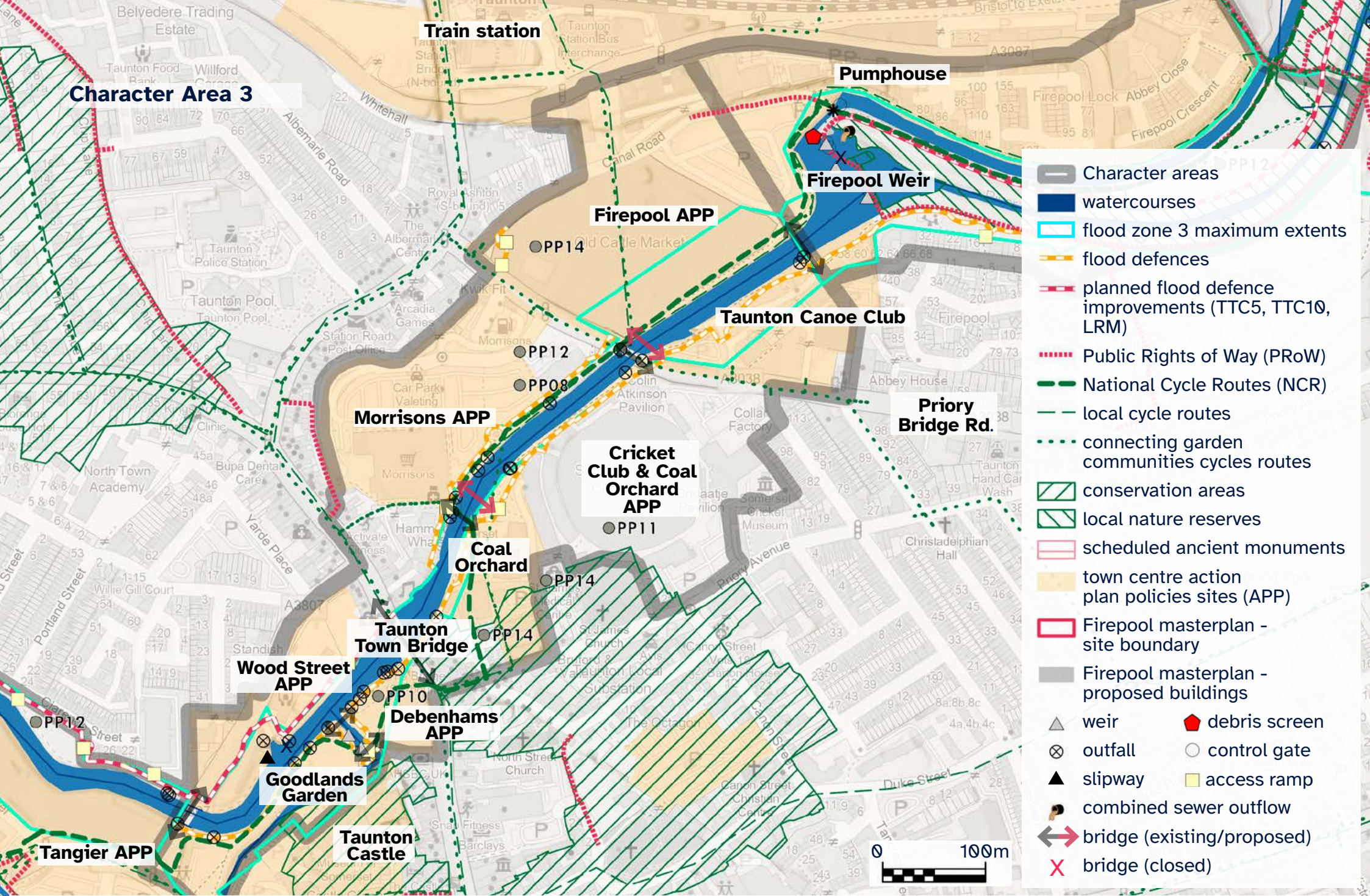
Key Maintenance Issues/Constraints (over next 25 years)

- The Environment Agency will cease to maintain the water levels control structures through Taunton Maintenance of the riverbanks. Channel is engineered with hard defences (riprap) at the moment which requires regular inspection and remedial works where damaged
- Siltation of the River Tone through Taunton
- Climate change – too much water for short periods and not enough water for longer periods
- Dewatering / lowering of water levels could have consequences to waterside structures (stability)
- Ecological constraints on proposed enhancement works include: potential presence of invasive non-native species and protected species. Ecological surveys would be required prior to works commencing and protected species licences may be required

- Phosphates and potential contaminants within silt

Planned Projects:

- PP08 - Cycleways are proposed in strategic plan but where practical should consider both walking and cycling/wheeling
- PP10 - Debenhams building (active frontage towards the water edge) – ideally turn building into a mixed-use development with entrances to waterfront – smaller retail units with residential on top
- PP11 - Cricket Club River proposal Policy Cr 1 (improvement to widening of riverside park and appropriate community use of new facilities)
- PP12 - Tree cover project across catchment including Somerset tree strategy.
- PP14 - Cycle hub at Firepool (proposed in new development) & cycle hub/ lockers proposed adjacent to St James Medical Centre, Coal Orchard.



- Character areas
- watercourses
- flood zone 3 maximum extents
- flood defences
- planned flood defence improvements (TTC5, TTC10, LRM)
- Public Rights of Way (PRoW)
- National Cycle Routes (NCR)
- local cycle routes
- connecting garden communities cycles routes
- conservation areas
- local nature reserves
- scheduled ancient monuments
- town centre action plan policies sites (APP)
- Firepool masterplan - site boundary
- Firepool masterplan - proposed buildings
- weir
- debris screen
- outfall
- control gate
- slipway
- access ramp
- combined sewer outflow
- bridge (existing/proposed)
- bridge (closed)

Data: © Natural England, © Sustrans © Environment Agency © Historic England. OpenStreetMap: map data © OpenStreet Map Contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri. World Hillshade: Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA and the GIS user community.

5.5.1 Character Area 3: Opportunities

The opportunities are grouped under the categories:

- Community Engagement (CA)
- Energy and Climate (E)
- Make Space for Water/Slow the Flow (W)
- Public Access (PA)
- Habitat and Wildlife (H)
- Recreation and Culture (RC)
- Planned projects (PP)

The town centre provides three major areas of opportunity for deriving multiple positive outcomes from investment in and adjacent to the water: at Goodland Gardens & Mill Stream, Coal Orchard and Firepool Weir.

Community Engagement

- CA02 - Reinvigorate 'Routes to the River Tone Project' (HLF), 2014-2017 / plan similar project again

Energy and Climate

- E01 - Opportunity to utilise the river for renewable and heating through hydropower and water source heat pumps

Make Space for Water/Slow the Flow

- W03 - Digital information board supplying water quality data including flows etc. or a board with app details including measuring stations on the Tone
- W04 - Possible to narrow channel through Town Bridge to increase velocity and scour silt and create some planting. Continue this through the town centre area by creating a more sinuous channel. This could have dual benefits of improved ecology and improved navigation

Public Access

- PA06 - Morrison site: provide a direct route between the proposed Boulevard in Firepool and Bridge Street for pedestrians, cyclists, and public transport
- PA14 - Expand the narrow footpath - as part of investment in the Cricket Ground

- PA15 - Potential for a small Mobility Hub at Brewhouse Theatre
- PA18 - Improved Links between Firepool Boulevard and Bridge Street, the river and the urban fabric and the relation to between the future the development and the river
- PA23 - Replace the Goodland Gardens bridge and potential for floating commercial units adjacent to Town Bridge to the rear of the former Debenhams building

Habitat Creation and Wildlife

- H08 - Continue tree belt - river edge - in front Morrisons (relocate bandstand)

Recreation and Culture

- RC01 - Opportunities for events along the river, including festival events such as dragon boat racing
- RC06 - Firepool boulevard as a key pedestrian route and commercial area with new public square at the Riverfront
- RC07 - Taunton Town Bridge as a landmark building. Maintain views to the bridge

Character Area 3 Opportunities



Train station

Pumphouse

Firepool Weir

Priory Bridge Rd.

Somerset County Cricket Club

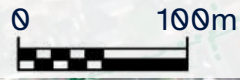
Coal Orchard

Taunton Town Bridge

Goodlands Garden

Taunton Castle

- Character areas
- watercourses
- flood defences
- planned flood defence improvements (TTC5, TTC10, LRM)
- Public Rights of Way (PRoW)
- National Cycle Routes (NCR)
- local cycle routes
- connecting garden communities cycles routes
- bridge (existing)
- bridge (proposed)
- Major Area of Opportunity



Data: © Sustrans © Environment Agency. Aerial Photography - World Imagery (Clarity) Source: Esri, Maxar Earthstar Geographics, IGN and the GIS user community. World Hillshade: Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodastystyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA and the GIS user community.

- RC08 - Brewhouse Theatre of cultural importance to Taunton as a arts and performance venue, with potential for improvement and better relationship with River.
- RC09 - Coal Orchard is a key recreational site / focus on events and future initiatives and offers an opportunity for a floating cafe or similar
- RC11 - Creation of multitude of green SuDS throughout new developments to give opportunities for community spaces and/or water play
- RC12 - Opportunity for pop up cafés / meanwhile uses along the waterfront
- RC13 - Retain and improve canoe club



Public spaces for all ages

Photo credit: Fredrik Larsson



Linear park along river



Retail opportunities in new development



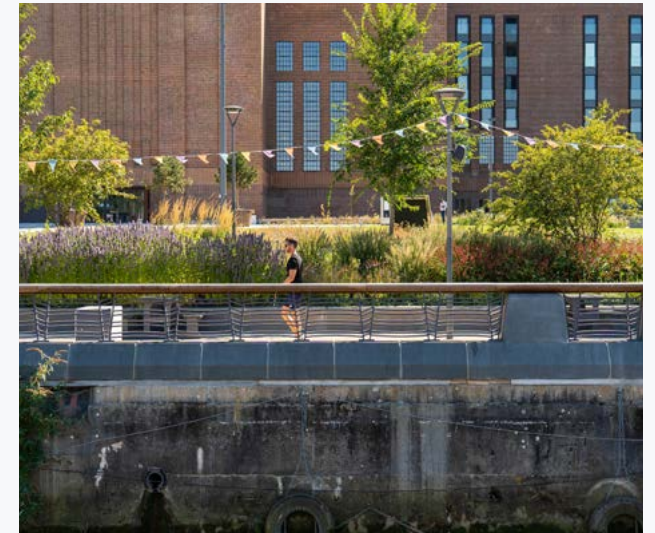
Active travel route & green spaces along river



Businesses alongside river



Water festivals and events



Improved access to the river

Opportunities town centre (precedents)

5.6 Character Area 4: Waterside Living (East)

Key Maintenance Issues / Constraints (Present)

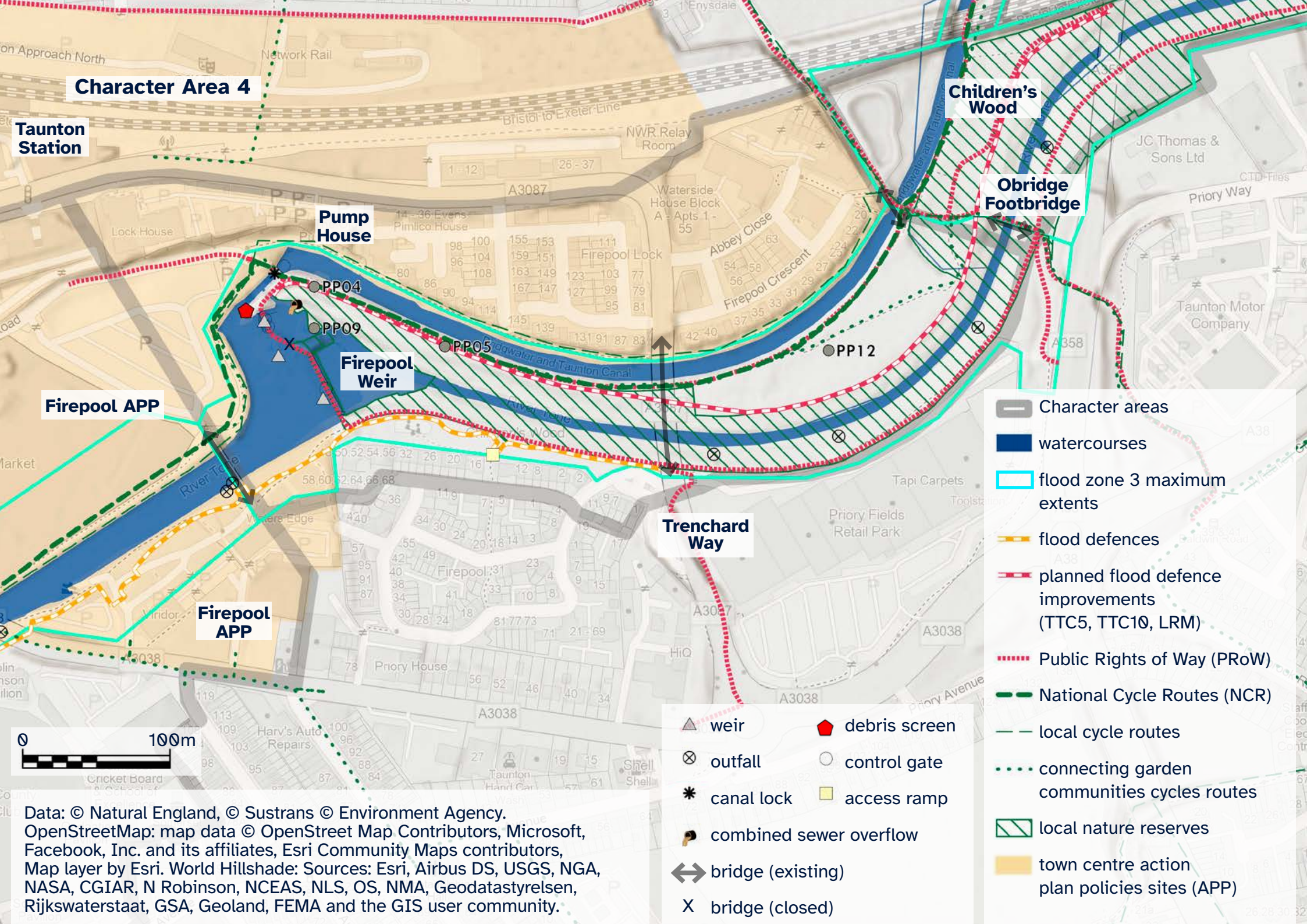
- Public Right of Way over Firepool Weir is closed off
- Siltation of the River Tone through Taunton
- Water level Control Structures required for navigation only plus ecology
- Access to the river for maintenance
- Differing opinion on levels of maintenance
- Understanding of riparian responsibilities
- Lack of formal access for water users, fishing platforms, kayakers etc
- Onward navigation to the canal hindered by siltation limited boat traffic
- Sluice structures inoperable
- Very steep access route up to Obridge / Canal walkway
- Public realm at Firepool- particularly along water edge, lighting, and lack of landscaping at water's edge.

- Light pollution onto riparian corridor from adjacent buildings, reducing effectiveness as a corridor for wildlife
- Water quality related to phosphates and nutrients upstream

Key Maintenance Issues / Constraints (over next 25 years)

- The Environment Agency will cease to operate or maintain the water levels control structures through Taunton (Firepool Weir / French Weir) as these are not flood management structures, and therefore, will not be funded to provide this function.
- Failure of the weir could be catastrophic in terms of ecology, phosphates release and flood risk
- Maintenance of the riverbanks. Channel is engineered with hard defences (riprap) at the moment which requires regular inspection and remedial works where damaged
- Siltation of the River Tone through Taunton

- Climate change – too much water for short periods and not enough water for longer periods
- Dewatering / lowering of water levels could have consequences to waterside structures (stability)
- Any proposed changes to the waterways need to be modelled to measure the impacts (refer to the Taunton strategic flood alleviation improvements projects planned (reference Taunton Flood Risk Management Strategy 2019/2020 and current Water modelling project (ongoing -2025)
- Canal heavily silted reduces its use for regular boat users
- Access for vegetation maintenance of the canal on the opposite bank to the tow path is by boat only
- Ecological constraints on proposed enhancement works include potential presence of invasive non-native species and protected species. Ecological surveys would be required prior to works commencing and protected species licences may be required



Opportunities to relate to historic buildings along the river

Planned Projects:

- PP04 - Firepool Sluice Gates Refurbishment Project (EA)
- PP05 - Raising the Flood Defences from Firepool Weir to Obridge
- PP09 - Development at Bridgwater Tidal Barrier has a requirement to improve fish passages upstream
- PP12 - Ecology enhancement including tree cover



5.6.1 Character Area 4: Opportunities

The opportunities are grouped under the categories:

- Community Engagement (CA)
- Energy and Climate (E)
- Make Space for Water/Slow the Flow (W)
- Public Access (PA)
- Habitat and Wildlife (H)
- Recreation and Culture (RC)
- Planned projects (PP)

Investment is required in Firepool Weir and the lock, and proposals are emerging for redevelopment of the historic pumphouse. If planned collectively, this is a significant area of opportunity that would deliver multiple benefits for the town.

Community Engagement

- CA02 - Reinvigorate 'Routes to the River Tone Project' (HLF), 2014-2017 / plan similar project again

Energy and Climate

- E01 - Opportunity to utilise the river for renewable and heating through hydropower and water source heat pumps

Make Space for Water/Slow the Flow

- W05 - Ensure high-quality SuDS and water management on proposed development sites for any future proposals

Public Access

- PA01 - TTC10 flood defence may impede PRoW; current path is very steep near Winkworth Way, rerouting and mitigation needs to be thoroughly considered, as the footbridge is an active travel route
- PA13 - Improve the bridge over Firepool Weir to allow public access
- PA21 - Opportunity to cross the river at Children's Wood (raised walkways)

Habitat Creation and Wildlife

- H07 - Retain, enhance and reinstate the 8m riparian zone planting along watercourse edge. [for protected species (otter, water vole, bats). Potential for register the zone as BNG offset.]
- H09 - Provide improved fish pass (on both Firepool and French Weir)

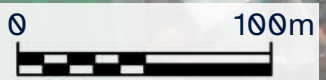
Recreation and Culture

- RC01 - Opportunities for events along the river, including child-friendly events such as rubber duck and paper boat racing
- RC10 - Pumphouse (Landmark building) Adjacent to Firepool Weir is the Grade II listed Pumphouse. The Pumphouse site is currently a brownfield site with the potential to create a focal point in the future

Character Area 4 Opportunities



Character areas	local cycle routes
watercourses	connecting garden communities cycles routes
flood defences	floodplain reconnection opportunities
planned flood defence improvements (TTC5, TTC10, LRM)	bridges (existing)
Public Rights of Way (PRoW)	bridges (proposed)
National Cycle Routes (NCR)	Area of Opportunity



Data: © Sustrans © Environment Agency. Aerial Photography - World Imagery (Clarity) Source: Esri, Maxar Earthstar Geographics, IGN and the GIS user community. World Hillshade: Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA and the GIS user community.



Pocket parks along river



Existing overlooking of the river



Potential for hydropower



Habitat creation



Active travel routes along the river



Interpretation along routes

Opportunities waterside living (east) precedents

5.7 Character Area 5: River Corridor

Key Maintenance Issues / Constraints (Present)

- The river area is a Nature Reserve
- Tree management
- Invasive Himalayan Balsam is unmanaged
- Consider flood risk to adjacent industrial estate
- Northern and Southern tributaries discharge into the river
- Agricultural runoff within the wider catchment has led to increased phosphates and nutrient input into the river; causing eutrophication and reducing water quality downstream

Key Maintenance Issues / Constraints (over next 25 years)

- EA likely to dispose of its landholdings – it is landowner. Limited opportunity for habitat enhancement / slowing the



flow along the banks here as priority is to remove water from Taunton as quickly as possible during flood events

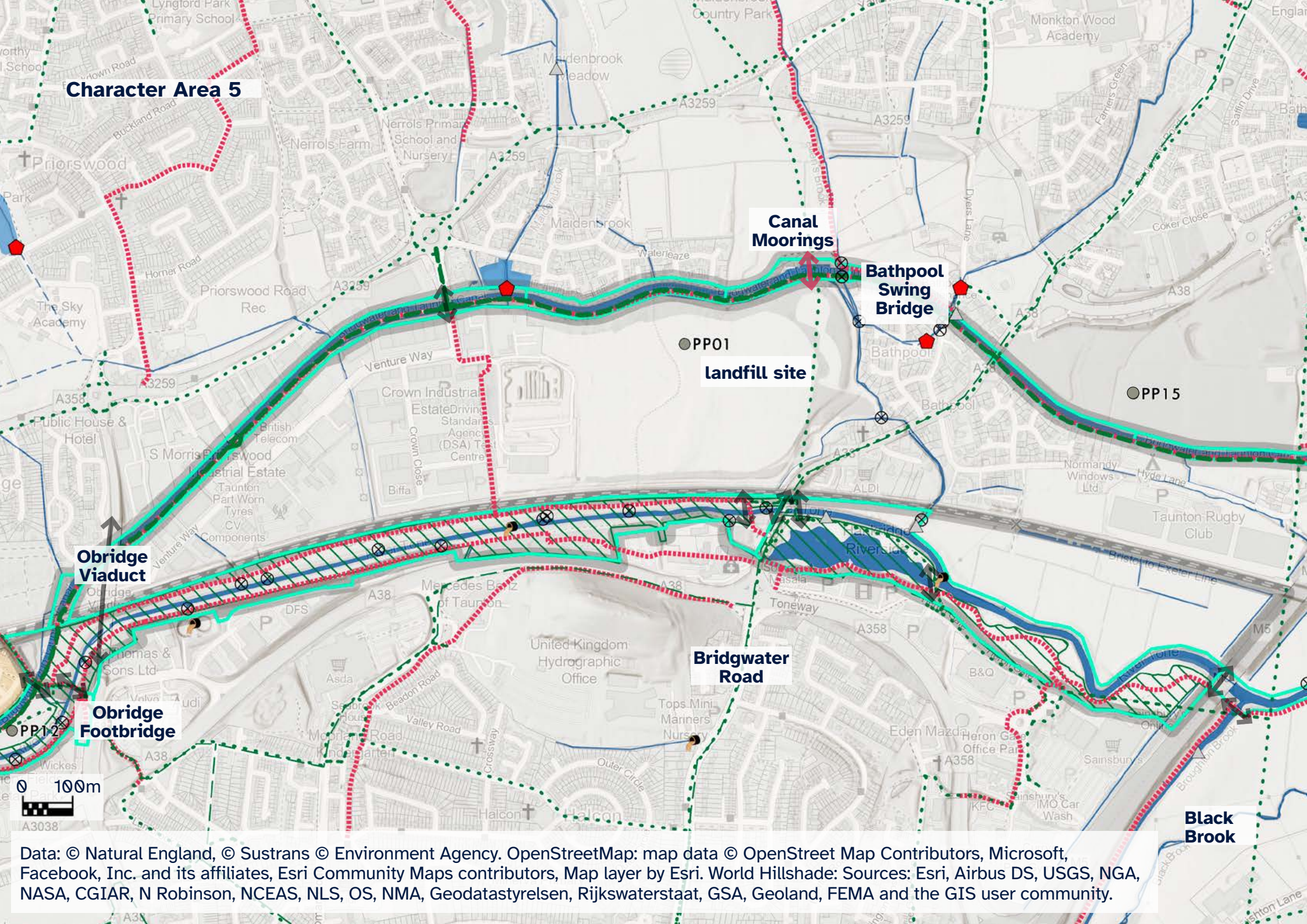
- Climate change – too much water for short periods and not enough water for longer periods
- Ecological constraints on proposed enhancement works include: potential presence of invasive non-native species and protected species. Ecological surveys would be required prior to works commencing and protected species licences may be required

Planned Projects:

- PP01 – Land contamination on former industrial site (Former gasworks, landfill site and Tangiers) - which has been capped off and is identified in policy as a community woodland opportunity
- PP15 Opportunity for access on previous racecourse land

Key

-  Character areas
-  watercourses
-  culverted watercourses
-  water storage area
-  flood zone 3 maximum extents
-  Public Rights of Way (PRoW)
-  National Cycle Routes (NCR)
-  local cycle routes
-  connecting garden communities cycles routes
-  local nature reserves
-  town centre action plan policies sites (APP)
-  weir
-  debris screen
-  outfall
-  combined sewer overflow
-  bridge (existing)
-  bridge (proposed)



Character Area 5

Canal Moorings

Bathpool Swing Bridge

landfill site

Obridge Viaduct

Obridge Footbridge

Bridgwater Road

Black Brook

Data: © Natural England, © Sustrans © Environment Agency. OpenStreetMap: map data © OpenStreet Map Contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri. World Hillshade: Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodastystyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA and the GIS user community.

5.7.1 Character Area 5: Opportunities

The opportunities are grouped under the categories:

- Community Engagement (CA)
- Energy and Climate (E)
- Make Space for Water/Slow the Flow (W)
- Public Access (PA)
- Habitat and Wildlife (H)
- Recreation and Culture (RC)
- Planned projects (PP)

Community Engagement

- CA02 - Reinvigorate 'Routes to the River Tone Project' (HLF), 2014-2017 / plan similar project again

Make Space for Water/Slow the Flow

- W06 - In channel improvements – very linear and straight. Improve existing small cascade weirs and put some sinuosity back in the channel. Include reed bed planting and small online ponds

- W07 - Opportunity for re-profiling of bank and creation of backwaters: to reduce flow and increase area for marginal vegetation, providing greater opportunities for invertebrates, amphibians, fish, otter, and water vole
- W09 - Opportunities for de-culverting watercourses

Public Access

- PA20 - Opportunity for public access on previous racecourse land
- PA21 - Opportunity to cross the river at Children's Wood (raised walkways)

Habitat Creation and Wildlife















- H01 - Potential presence of invasive non-native species
- H02 - Agricultural runoff in the wider catchment has led to increased phosphate and nutrient input into the river causing eutrophication and reducing water quality downstream

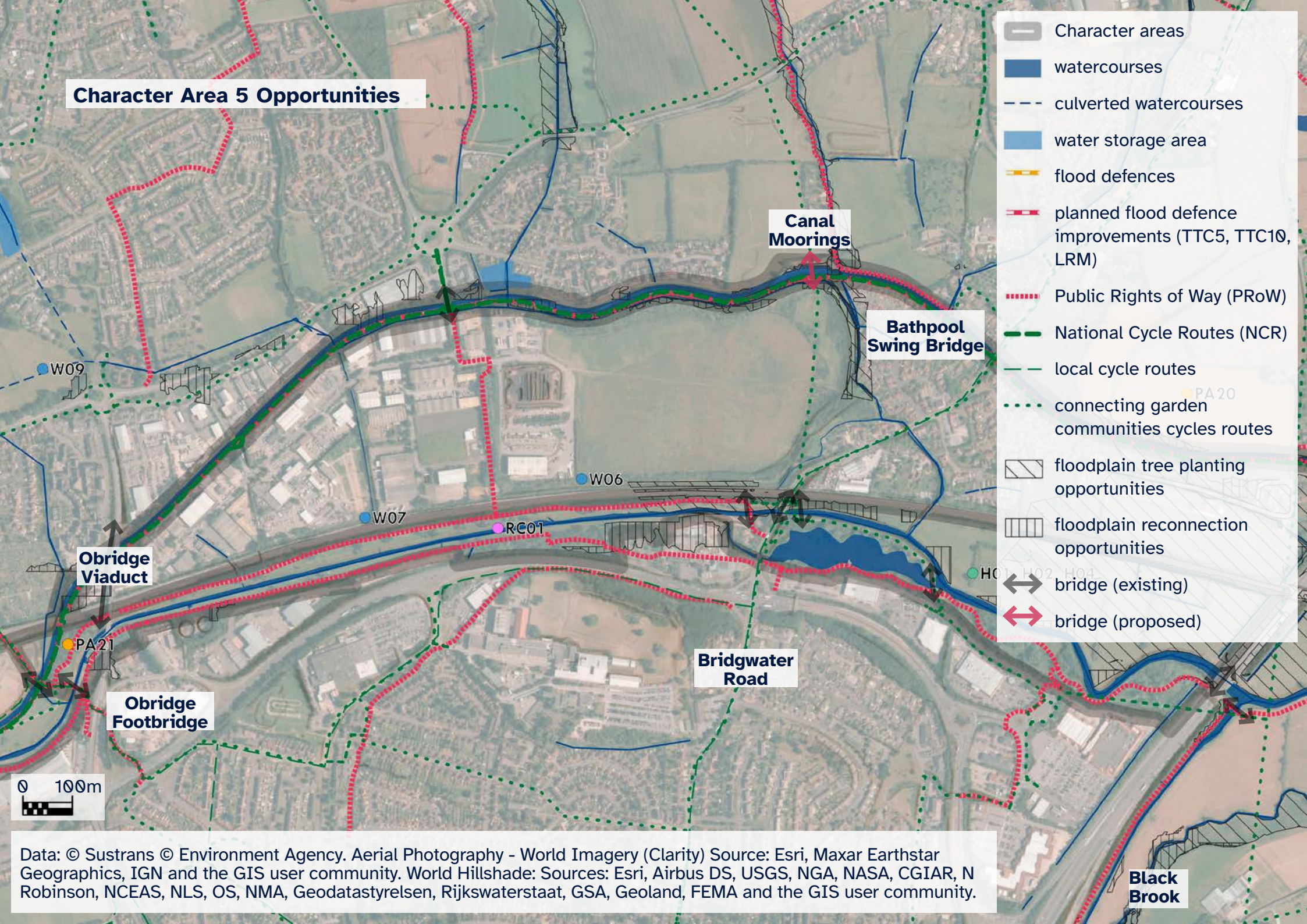
- H04 - Opportunities for BNG habitat creation. [diversifying habitats on site and benefiting protected species: grassland enhancement; wetland creation; woodland and scrub planting.]
- H06 - Opportunity to create green links as recognised in the GI strategy and the Garden Town Vision document

Recreation and Culture

- RC01 - Opportunities for events along the Waterways, including nature-focused riverside walks and linear 'park runs' for example

Character Area 5 Opportunities

-  Character areas
-  watercourses
-  culverted watercourses
-  water storage area
-  flood defences
-  planned flood defence improvements (TTC5, TTC10, LRM)
-  Public Rights of Way (PRoW)
-  National Cycle Routes (NCR)
-  local cycle routes
-  connecting garden communities cycles routes
-  floodplain tree planting opportunities
-  floodplain reconnection opportunities
-  bridge (existing)
-  bridge (proposed)



Data: © Sustrans © Environment Agency. Aerial Photography - World Imagery (Clarity) Source: Esri, Maxar Earthstar Geographics, IGN and the GIS user community. World Hillshade: Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodastystyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA and the GIS user community.

Black Brook





Bank reprofiling



Improved cycle routes



Recreation



Events along the river



Habitat creation



Watersports

Opportunities river corridor (precedents)

5.8 Character Area 6: Urban Canal

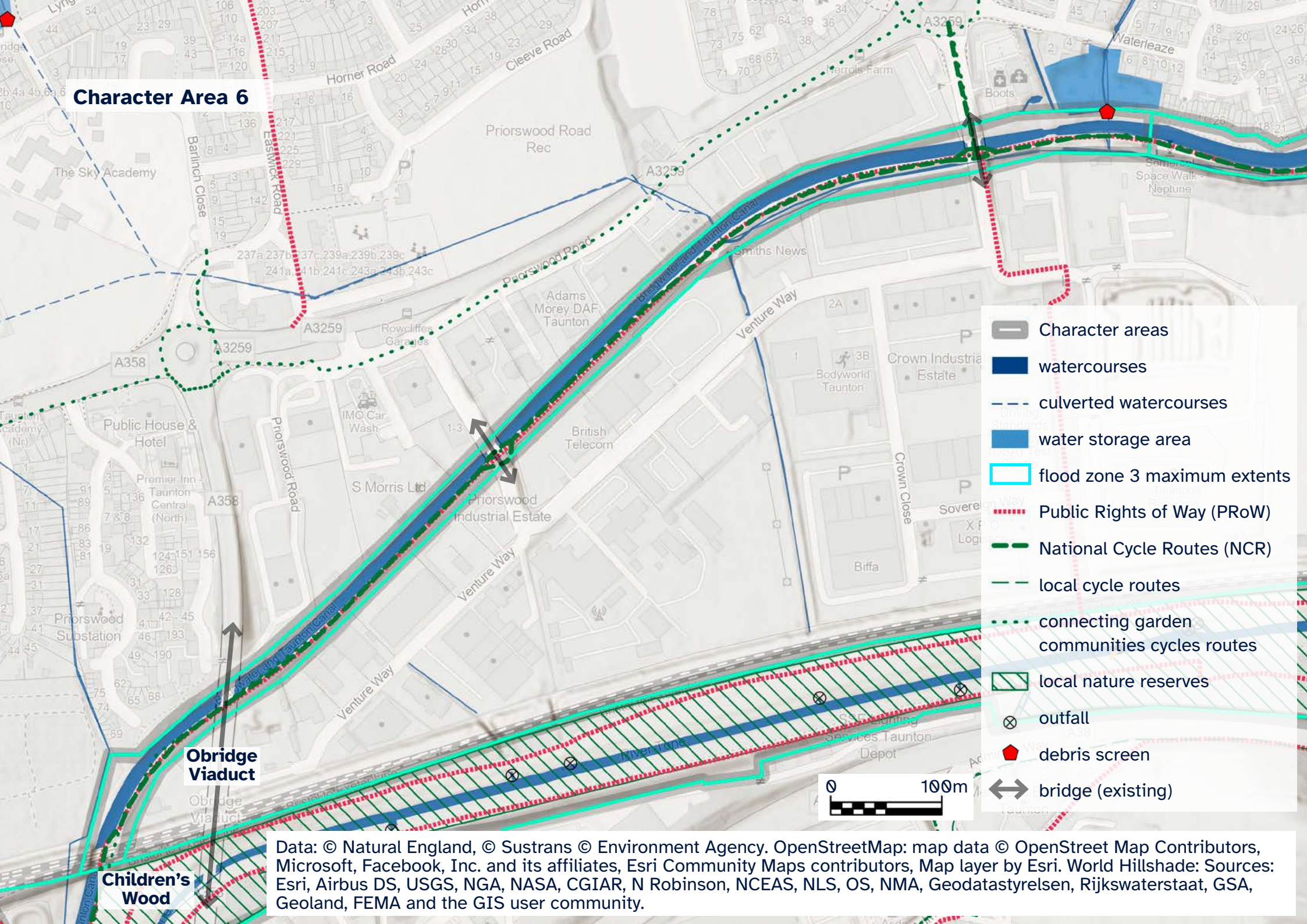
Key Maintenance Issues / Constraints (Present)

- Siltation raises bed level and limits navigation
- Offside vegetation clearance difficult (boat only)
- Lock gates and sluices
- Bridge crossings
- Boat numbers to ensure canal is viable.
- Footpath access
- Availability of water for navigation in summer
- Towpath surfacing and links and signage to it. Potholes, car parking locations/lack of access by public transport
- Agricultural runoff within the wider catchment has led to increased phosphates and nutrient input into the water, causing eutrophication and reducing water quality downstream

Key Maintenance Issues / Constraints (over next 25 years)

- Climate change – too much water for short periods and not enough water for longer periods. Over abstraction into canal – drought on tone
- Over development
- Increased footfall and usage of towpath causes a maintenance challenge for the Canal and River Trust
- Lock gates at Maunsel will need replacing in 2027
- Possible leaks at Standards Lock being investigated. May need funding
- Ecological constraints on proposed enhancement works include potential presence of invasive non-native species and protected species. Ecological surveys would be required prior to works commencing and protected species licences may be required

Character Area 6



- Character areas
- watercourses
- culverted watercourses
- water storage area
- flood zone 3 maximum extents
- Public Rights of Way (PRoW)
- National Cycle Routes (NCR)
- local cycle routes
- connecting garden communities cycles routes
- local nature reserves
- outfall
- debris screen
- bridge (existing)

Obridge Viaduct

Children's Wood

Data: © Natural England, © Sustrans © Environment Agency. OpenStreetMap: map data © OpenStreet Map Contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri. World Hillshade: Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA and the GIS user community.

5.8.1 Character Area 6: Opportunities

The opportunities are grouped under the categories:

- Community Engagement (CA)
- Energy and Climate (E)
- Make Space for Water/Slow the Flow (W)
- Public Access (PA)
- Habitat and Wildlife (H)
- Recreation and Culture (RC)
- Planned projects (PP)

It would be beneficial to have a Recreational Strategy for the canal as the basis for coordinating investment over the longer term.

There is an opportunity to introduce more active frontage to the canal as industrial units to the south are gradually redeveloped over time. For example, office functions, canteens and break-out space could be positioned to relate more positively to the canal and towpath.

Community Engagement

- CA02 - Reinvigorate 'Routes to the River Tone Project' (HLF), 2014-2017 / plan similar project again

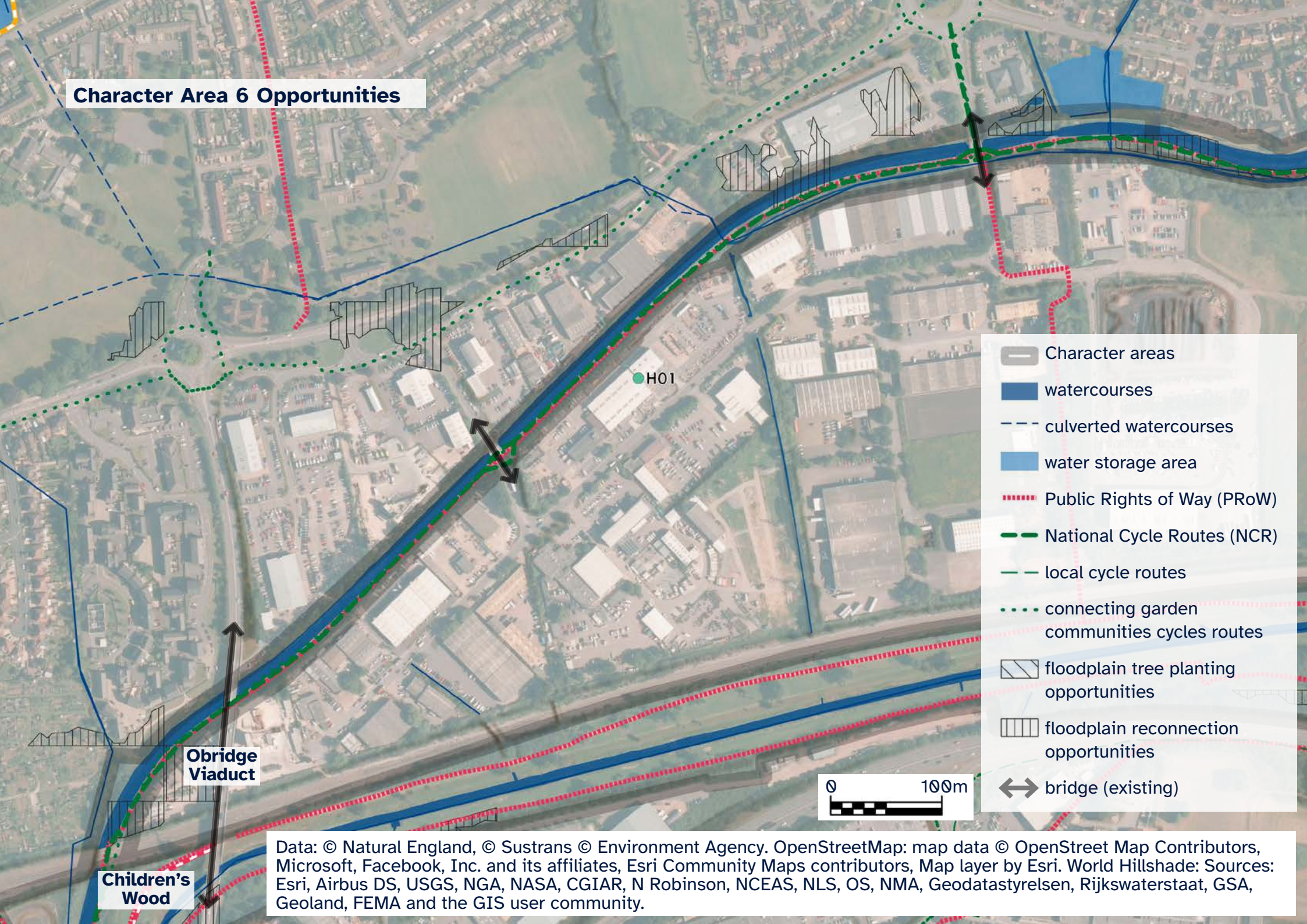
Public Access












- PA20 - Potential for access gates from Employment sites to canal, public use during lunch breaks

Habitat Creation and Wildlife

- H01 - Potential presence of invasive non-native species - constraints

Character Area 6 Opportunities

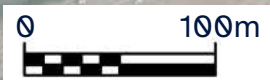


-  Character areas
-  watercourses
-  culverted watercourses
-  water storage area
-  Public Rights of Way (PRoW)
-  National Cycle Routes (NCR)
-  local cycle routes
-  connecting garden communities cycles routes
-  floodplain tree planting opportunities
-  floodplain reconnection opportunities
-  bridge (existing)

Obridge Viaduct

Children's Wood

H01



Data: © Natural England, © Sustrans © Environment Agency. OpenStreetMap: map data © OpenStreet Map Contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri. World Hillshade: Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA and the GIS user community.



Greening of the route



Public realm - outdoor seating



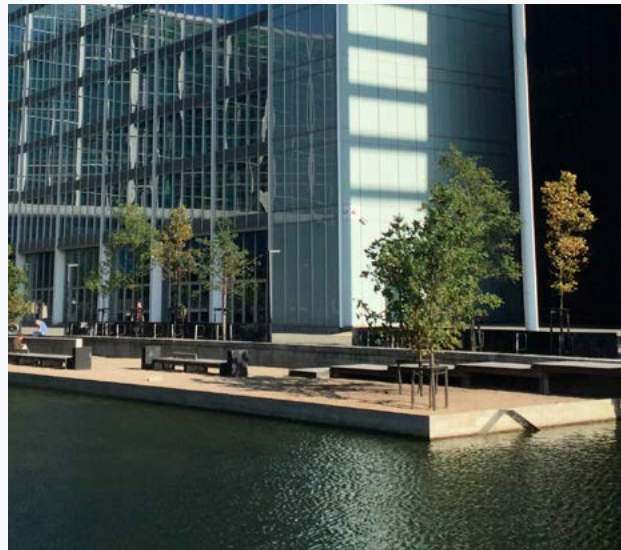
Positive relationship to water



Provision for active travel



Active frontage to water



Strong connection to water



Industrial architecture

Opportunities urban canal (precedents)

5.9 Character Area 7: Rural Canal

Key Maintenance Issues/Constraints (Present)

- Situation raises bed level and limits navigation
- Offside vegetation clearance difficult (boat only)
- Lock gates and sluices
- Boat numbers to ensure canal is viable
- Footpath access
- Availability of water for navigation in summer
- Towpath surfacing and links and signage to it. Potholes, car parking locations/ lack of access by public transport
- Agricultural runoff within the wider catchment has led to increased phosphates and nutrient input into the water, causing eutrophication and reducing water quality downstream

Key Maintenance Issues/Constraints (Next 25 Years)

- Over development
- Moorings
- Climate change - too much water for short periods and not enough water for longer periods. Over abstraction into canal - drought on tone
- Increased footfall and usage of towpath
- Lock gates at Maunsel will need replacing in 2027
- Possible leaks at Standards locks being investigated. May need funding
- Ecological constraints on proposed enhancement works include potential presence of invasive non-native species and protected species. Ecological surveys would be required prior to works commencing and protected species licences may be required

Planned Projects:

- PP01 – Land contamination on former tip - which has been capped off and is identified in policy as a community woodland opportunity
- PP15 Opportunity for access on previous racecourse land due to allocation as part of green space associated with the Monkton Heathfield site.

Character Area 7

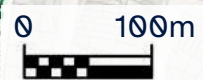
- landscape character areas
- watercourses
- culverted watercourses
- water storage area
- flood zone 3 maximum extents
- Public Rights of Way (PRoW)
- National Cycle Routes (NCR)
- local cycle routes
- connecting garden communities cycles routes
- local nature reserves
- weir
- debris screen
- outfall
- combined sewer overflow
- bridge (existing)
- bridge (proposed)

Canal Moorings

landfill site

Bathpool Swing Bridge

Bridgwater Road



Data: © Natural England, © Sustrans © Environment Agency. OpenStreetMap: map data © OpenStreet Map Contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri. World Hillshade: Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA and the GIS user community.

5.9.1 Character Area 7: Opportunities

The opportunities are grouped under the categories:

- Community Engagement (CA)
- Energy and Climate (E)
- Make Space for Water/Slow the Flow (W)
- Public Access (PA)
- Habitat and Wildlife (H)
- Recreation and Culture (RC)
- Planned projects (PP)

There is an opportunity to improve connectivity between the river and canal, linking communities and connecting them to the water and to the countryside, an alignment with the Garden Town Vision. An additional bridge over the canal, in the vicinity of the moorings, would facilitate that connection but the idea is not currently supported by the Canal and River Trust

Community Engagement

- CA02 - Reinvigorate 'Routes to the River Tone Project' (HLF), 2014-2017 / plan similar project again

Public Access

- PA20 - Opportunity for access on previous racecourse land due to allocation as part of green space associated with the Monkton Heathfield site.

Habitat Creation and Wildlife

- H01 - Opportunity to improve habitats through removal of invasive non-native species.
- H06 - Opportunity to create green links as recognised in the GI strategy and the Garden Town Vision document

Character Area 7 Opportunities

Canal Moorings

Bathpool Swing Bridge

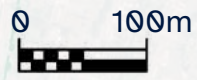
Bridgwater Road

H06

PA20

H01

- Character areas
- watercourses
- culverted watercourses
- water storage area
- Public Rights of Way (PRoW)
- National Cycle Routes (NCR)
- local cycle routes
- connecting garden communities cycles routes
- floodplain tree planting opportunities
- floodplain reconnection opportunities
- bridge (existing)
- bridge (proposed)



Data: © Sustrans © Environment Agency. Aerial Photography - World Imagery (Clarity) Source: Esri, Maxar Earthstar Geographics, IGN and the GIS user community. World Hillshade: Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA and the GIS user community.