



# THE EAST HAMPSHIRE CATCHMENT PARTNERSHIP

Catchment Management Plan  
2021 - 2027

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East Hampshire  
Catchment Partnership

DOCUMENT CONTROL				
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Produced by *Groundwork South* (GWS) on behalf of the East Hampshire Catchment Partnership  
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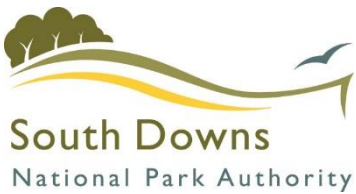
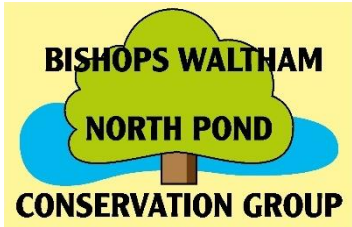
Catchment Management Plan  
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The East Hampshire Catchment Partnership works closely with a wide array of organisations, businesses, groups and landowners based across the district including;



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## **INTRODUCTION & BACKGROUND**

### 1.1

This Catchment Management Plan provides an overview of the East Hampshire Catchment, outlines the main issue affecting the catchment's waters and sets out the objectives, targets and actions to deliver a range of coordinated and integrated improvements within the catchment. It has been produced by the East Hampshire Catchment Partnership, established in October 2012 to initiate an integrated catchment approach, by bringing together relevant organisations and groups.

### 1.2

The UK has a duty under the European Water Framework Directive (WFD) to assess the quality of its water resources and where necessary to improve their condition. This includes our rivers, lakes, estuaries, coastal waters and groundwaters. They are monitored and assessed against criteria, which determine their condition. Unfortunately, many do not attain good or above status and therefore fall short of meeting the desired WFD standard.

### 1.3.

The need for a 'Catchment Based Approach' (CaBA) to improving our water environment was validated by the UK Government in 2011, to help deliver the objectives of the European Water Framework Directive (WFD). The UK is continuing to follow this framework after leaving the EU. The approach was also validated by the Government's Natural Environment White Paper (2011), and the 25 Year Environment Plan will become an increasingly important driver for improvement. The latter commits the UK to achieving clean and plentiful water by improving at least three quarters of our waters to be close to their natural state as soon as is practicable.

## **What is the Water Framework Directive?**

### 1.4.

In the 1990s the European Commission recognised that a co-ordinated and comprehensive approach was needed to address the continent-wide deterioration in our rivers, lakes, coastal waters and groundwater. The result was the Water Framework Directive (WFD). It came into force in England in 2003. The aim is to bring all these 'water bodies' to good health.

## **What is a River Basin Management Plan (RBMP)?**

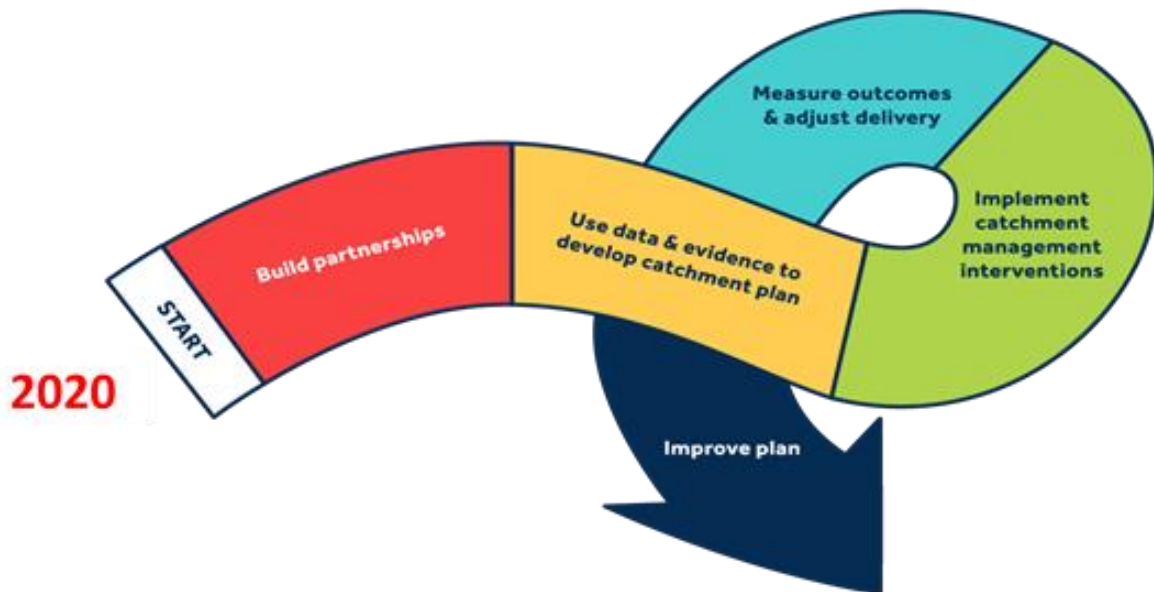
### 1.5.

The Environment Agency produces River Basin District Plans which explains:

- the baseline classification of waterbodies;
- statutory objectives for protected areas and waterbodies;
- the summary programme of measures to achieve statutory objectives.

1.6.

There are 11 River Basin Districts in England and Wales. The South East River Basin District is divided into 'catchments', including East Hampshire. There are three six-year RBMP cycles (2009-15, 2016-21, 2022-27). These catchments are further divided into the waterbodies mentioned above.



### The Catchment Based Approach (CaBA)

1.7.

Many organisations are responsible for managing this effort as regulators (e.g. EA, Natural England), Operators (e.g. industry, local government), Influencers and Project deliverers. At a local level, progress and delivery is developed and overseen by partnerships within each catchment, e.g. the East Hampshire Catchment Partnership. Each partnership is facilitated by a 'host'. For East Hampshire this is Groundwork South.

1.8.

Hosts and partnerships are supported in this work by the Catchment Based Approach (CaBA), see: <https://catchmentbasedapproach.org/>

### What is a healthy Waterbody?

1.9.

A healthy waterbody is one with thriving populations of fish, invertebrates, plants and diatoms (microscopic algae). To be healthy they rely upon a healthy flow of water and a variety of natural habitats. These are affected by the levels of pollutants and the nutrients available in the water. They can also be affected by the shape and structure of the water body itself.

### 1.10.

Assessing the health of a waterbody relies on good data. This data needs to consider:

- The variety and the number of different organisms, wildlife and plants within the waterbody (its biodiversity).
- The condition of the water (temperature, acidity/alkalinity, and the nutrients present).
- The amount/type of harmful polluting chemicals in the water.
- The characteristics of the water body environment (whether engineered or natural, and whether it could be improved).

Data is used to classify the overall state of the water body. The classifications are:

High	Good	Moderate	Poor	Bad
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### 1.11.

A classification network assesses the condition of these waterbodies. These classifications and the methodology and analysis behind it provides fundamental building blocks for decision making across the water environment. For main rivers, and transitional/coastal waters (TraCs) a series of ecology and chemistry elements have been monitored and analysed. For groundwater, the quantity (amount of water in the aquifer) and chemistry/ quality have been monitored. For instance, to classify ecology: 18 biological elements are measures (macrophytes/ aquatic plants, invertebrates, fish etc); 10 physio-chemical elements (ammonia, phosphate, pH etc); 22 pollutants that affect biology (copper etc); 4 hydromorphological elements.

### 1.12.

A water body is considered High or Good if elements classified are above the required criteria that assesses deviation from a natural state due to human impact. Depending on how much they fall below the criteria, the water body will be considered Moderate, Poor, or Bad. Even if a number of elements are Good but one or two key elements are Moderate, especially if they are ecological, e.g. fish or invertebrates, then the water body will be Moderate or below – because the worse performing element drives the classification. Since the 2009 classifications there have been some changes. Some water bodies have been removed from consideration, e.g. if they were too small or isolated. Also, the monitoring and analysis has revealed a number of issues that had not been initially monitored, and pressures to the environment have increased or emerged. The most recent changes in the 2019 classifications for RBMP 3 (2022-2027), which relate to chemical pollutants in the environment.

### 1.13.

Monitoring and improved analysis means chemicals at lower levels in the environment can be detected. This approach assesses concentrations in the flesh of aquatic organisms for persistent chemicals that can accumulate up food chains, which supplements the previous water column monitoring. WFD classification does not reflect whether fish and shellfish are safe to eat.



#### 1.14.

Many of these chemicals are released from different diffuse sources, e.g. from household products into sewers, industries that closed down many years ago, but the legacy of chemical pollution is still impacting the environment. The chemicals that are causing the widespread failure of chemical status are already banned or subject to strict regulation. This new evidence shows that East Hampshire surface water bodies are affected by four of these chemicals (see listed in the table below):

- Mercury – residues from past industry, which has only restricted use now.
- Polybrominated diphenyl ethers (PBDE) – flame retardants used in electrics, foams, textiles. Now restricted uses only.
- Benzo(g-h-i)perylene (a polycyclic aromatic hydrocarbon, PAH) – combustion by-product from wood, biofuels, exhaust fumes, smoke.
- Perfluoro-octane sulphonate (PFOS) – used for their non-stick, water repellent and oil-resistant characteristics for firefighting foams, textiles etc. Now restricted use only.

#### 1.15

Local and national figures show that East Hampshire's water quality condition remains static. This is due to the points above and how improved and more comprehensive monitoring reveals new issues, but also wider pressures such as population growth, land use and climate change.

#### 1.16

A more detailed picture of the condition of East Hampshire's water environment is provided at Appendix A, applying the classifications for cycle 3 (2021-27). Classifications may change during this Plan period as new data is collected and new assessments are done.

## THE PARTNERSHIP

### 2.1

Throughout England, Catchment Partnerships have come together to agree on the priorities within their local catchments and deliver improvements through the development of Catchment Management Plans. The Partnerships are not statutory bodies and do not hold any power or specific duties. They are a collaboration between the many agencies (statutory and non-statutory) with roles to play in the planning, management and maintenance of water resources within the catchment. This includes all the water resources - rivers, streams, reservoirs/lakes, groundwater and some of the coastal water resources.

### 2.2

The Partnership's key roles in its pursuit of its objectives are to:

- Identify project opportunities.
- To set the priorities for the actions of the Partnership.
- Coordinate local projects and resources.
- Support local landowners with advice and guidance.
- Support local communities with advice, networking and fundraising
- Control the spread of harmful invasive species.
- Improve water quality and diversify riparian habitats.
- Assist in the monitoring of water quality.
- Raise awareness of local water issues.
- Champion best practice waterways management at a strategic planning level.
- Influence spatial planning policy to raise the standards of new development affecting the water environment.

## 2.3

The Partnership current members are:

- Bishops Waltham North Pond conservation Group
- Country Land and Business Association
- Downs and Harbours Clean Water Partnership
- East Hampshire District Council
- East Solent Coastal Partnership
- Eastleigh Borough Council
- Environment Agency
- Fareham Borough Council
- Forestry Commission
- Friends of Hermitage Stream
- Gosport Borough Council
- Groundwork South
- Hampshire and Isle of Wight Wildlife Trust
- Havant Borough Council
- Landowner's (Private)
- Langstone Harbour Board
- Marine Management Organisation
- Meon Valley Partnership
- Natural England
- Portsmouth and District Angling Society
- Portsmouth Water Company
- University of Portsmouth
- Solent Coast Forum
- South Downs National Park
- Southern Water
- Wild Trout Trust
- Winchester City Council

## VISION & OBJECTIVES

3.1.

The Partnership's vision and objectives for the next seven years have been refreshed to reflect the passage of time since the previous catchment plan came into being in 2014. The Partnership's role remains unchanged, but the new vision and objectives have been amended to reflect the things it is able to take a role in through direct action, influence or engagement. They reflect the role the Partnership has and those things it can do that add value to the work done by others.

3.2.

The Partnership has developed the following vision and objectives which have been used to shape the work it will do over the next seven years. The objectives include topic areas the Partnership will focus on where it is able to contribute most to the collaborative work it does with partner organisations and local communities. The project plan has been developed to translate these into action that will be taken on the ground to deliver change.



**'As the East Hampshire Catchment Partnership, we will inspire businesses, organisations, landowners, residents and community groups to come together and take an active role in creating a resilient and sustainable water environment that meets the present and future needs of local communities and helps nature to recover and advance'**

**EHCP 7 YEAR VISION**

### 3.3.

Not all the issues that are affecting water resources within the Catchment in a WFD context can be addressed within this seven-year timescale. This vision is set in a longer term twenty-five-year context. This reflects the Government's own long-term vision and targets for the improvement of the UK water environment

### 3.4.

The seven objectives of the 2014-2020 Plan have been condensed to five. These will guide the work the Partnership does throughout the course of this 2021-2027 Plan.

### 3.5.

The Partnership will focus its efforts on tackling issues that are affecting the local water environment where it feels it is able to make a difference. Projects have been developed that sit within the objectives the Partnership has set for itself. These fall into the following categories; details of projects are provided in Section 7.



THE EAST HAMPSHIRE  
CATCHMENT PARTNERSHIP

# 2021 - 2027 OBJECTIVES

A CATCHMENT BASED APPROACH



## DEVELOPMENT & GROWTH

DEVELOP ECOLOGICAL ENHANCEMENTS AND FLOOD RESILIENCE OPPORTUNITIES FROM LOCAL DEVELOPMENTS TO MAXIMISE THEIR CONTRIBUTION TO SUSTAINABLE WATER MANAGEMENT.



## WATER QUALITY

UNDERSTANDING THE PRESENT STATUS OF THE CATCHMENT, IDENTIFYING SOURCES OF URBAN AND RURAL POLLUTION AND UNDERTAKING ACTIONS TO IMPROVE OVERALL STATUS.

## COMMUNITY ENGAGEMENT & ACCESSIBILITY

INCREASE AWARENESS OF CATCHMENT WIDE CHALLENGES AND ENCOURAGE ACTIVE PARTICIPATION AT LOCAL AND CATCHMENT WIDE LEVELS.



## WATER QUANTITY

RAISE AWARENESS OF LOW FLOWS AND SUPPORT INCREASED RESILIENCE TO ADDRESS FUTURE CHALLENGES.

## BIODIVERSITY AND NATURE RECOVERY

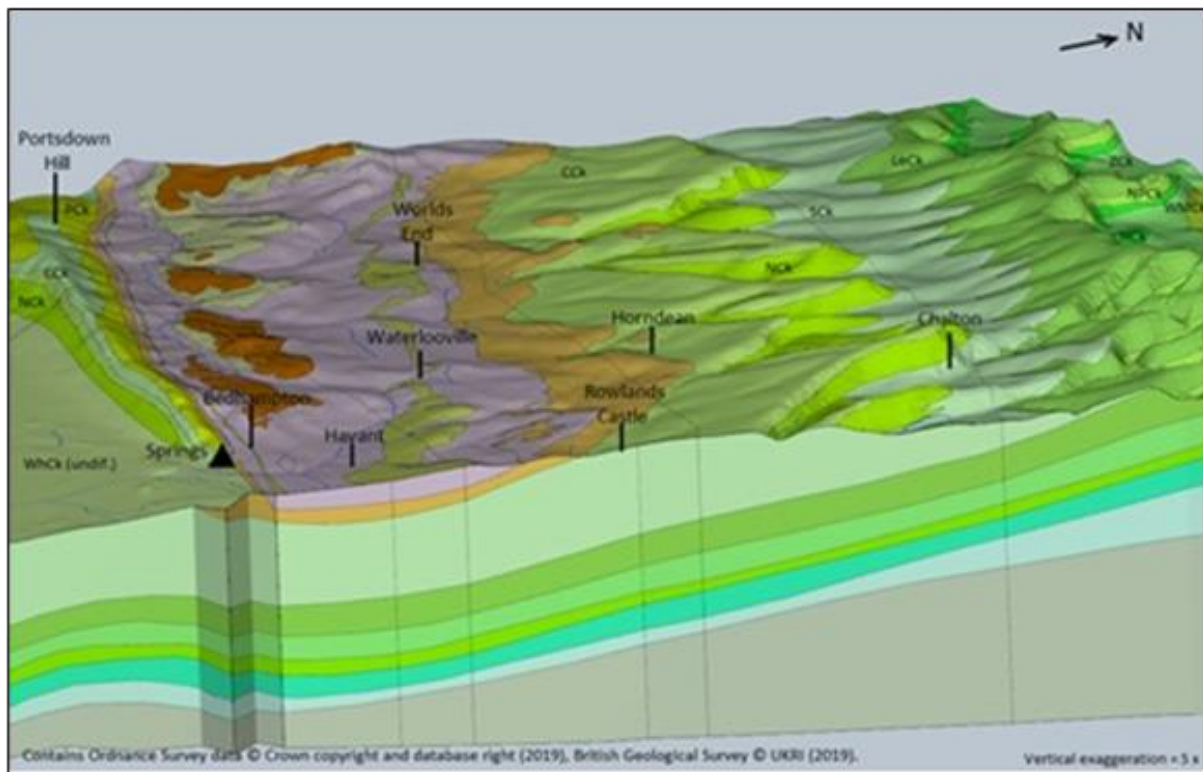
PROTECT AND IMPROVE OUR WATER ENVIRONMENT TO INCREASE CATCHMENT RESILIENCE.



## EAST HAMPSHIRE WATER ENVIRONMENT

4.1.

The geology of the area provides a vital natural water resource. The South Downs chalk strata is overlain with more recent clays and gravels south of a line that runs from Lower Upham to Rowland's Castle. This change in geology is also identified by changes in landscape character. Here the heavier soils make forestry and livestock farming the dominant land management practices.



4.2.

Over hundreds of years these practices have created the mosaic landscape of the medieval Forest of Bere where the Wallington and Hamble rivers rise. However, this disconnected patchwork and more intense agricultural practices has quite often isolated wildlife and deprived it of habitat and food.

#### 4.3.

Over the northern third of East Hampshire are the rolling chalk South Downs, protected by the South Downs National Park. These hills and the undulating chalk dip slope are dominated by mixed farming and some forestry with minor settlements, mostly villages and hamlets. A chain of iconic villages can be found following the course of the river Meon, one of only two rivers in this catchment that begin on the chalk. The catchment is dominated by a chalk aquifer which provides a crucial water supply for the public and industry, and a summer base flows for many of the watercourses in the catchment.

#### 4.4.

To the south is a flat, heavily urbanised coastal plain, which has been heavily modified to allow for the growth of Fareham, Gosport, Havant, Portsmouth, Southampton and other smaller towns. Some of this development has been on land reclaimed from the sea. There is some concern that these low-lying areas might be at risk as a result of sea level rises resulting from climate change. There are also major developments at North Whiteley near the Hamble, north Fareham close to the Meon and Waterlooville, by the headwaters of the Potwell Tributary and Wallington.

#### 4.5.

The catchment's rich history includes many scheduled monuments, notably those associated with coastal defence and shipbuilding. Southampton and Portsmouth were the birthplace of the Royal Navy in the reign of King Henry VIII, and Titchfield used to be an important commercial port. The River Hamble was a medieval dockyard, and remains of medieval ships remain in the estuary, notably the wreck of the Grace Dieu, Henry VIII's largest warship. It is now a protected wreck. The Mary Rose was built in Portsmouth, which has continued to be an important naval dockyard ever since.

#### 4.6.

Portsmouth continues to be the home of the Royal Navy's surface fleet, and also has a major ferry terminal. There are a small number of fish farms and watercress farms, especially on the Meon near Warnford is still. Traditionally, the Solent and harbours have supported shellfish fisheries, but because of the effect of poor water quality, over-fishing and presence of non-native species, these sites have now been closed. The Solent Oyster Restoration initiative, run by the Blue Marine Foundation is trying to reverse this decline, by trialling the re-introduction of this once-common bivalve.

#### 4.7.

East Hampshire's watercourses are very popular for recreational water sports, but the inland watercourses are shallow and mostly narrow, so there is no inland navigation. There is a network of heavily used paths and cycle-ways along many river banks. Many of the beaches are important feeding and roosting sites for protected migratory birds, so people and dogs are discouraged from some sites at sensitive times of the year.

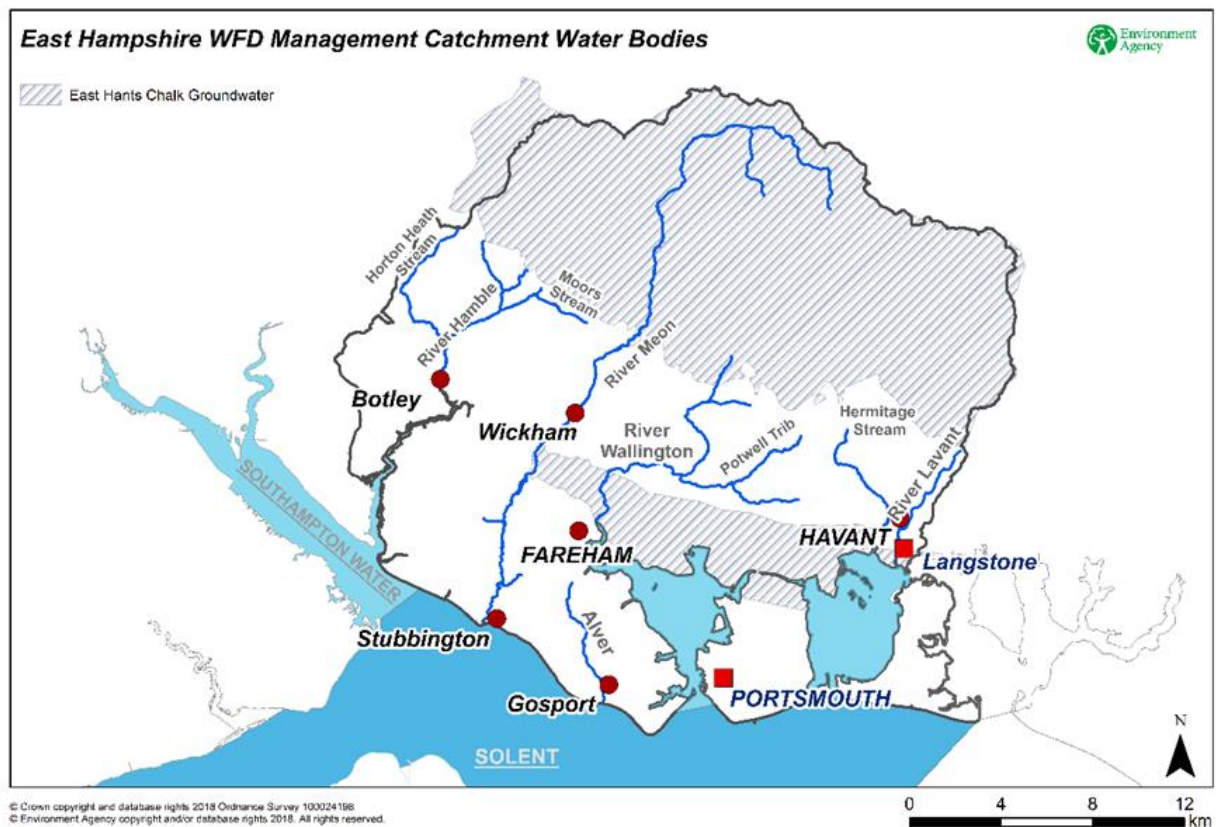


4.8.

The area is renowned for the quality of its bird-watching and angling. As with biodiversity, fishing is heavily dependent upon good water quality and fish being able to move freely up and down-stream without impediment. The Meon, Hamble and Wallington provide the best fishing. The rivers support a diverse range of coarse fish along including trout, migratory sea-trout and occasionally, salmon. Many old clay/gravel pits and former ornamental lakes are popular commercial trout fishing venues which depend on the high quality water supply, notably on the River Meon.

4.9.

The main rivers are the Hamble, Meon, Wallington, Hermitage and Lavant, which drain respectively into Southampton Water, Solent, Portsmouth Harbour and Langstone Harbour. These coastal features have significant importance for the conservation of biodiversity at the international, national and local levels – although they are under threat from ‘coastal squeeze’ by expanding towns and located close to many historic landfill sites.



#### 4.10.

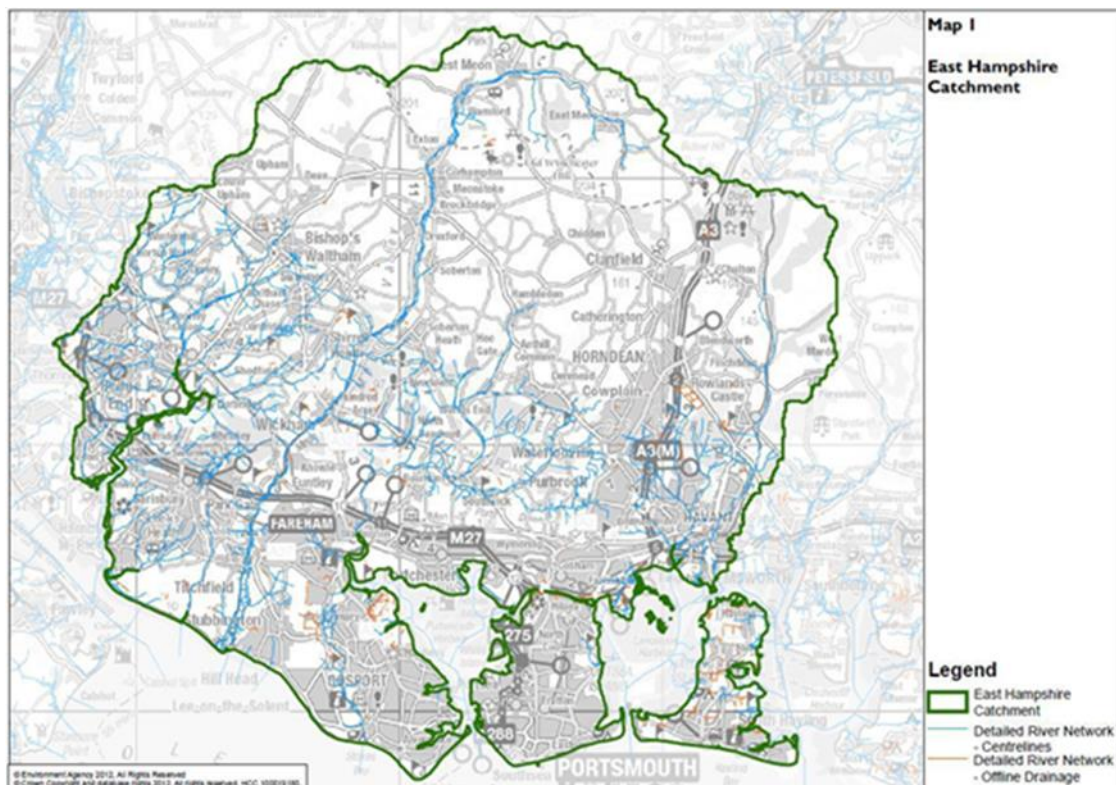
Portsmouth and Langstone harbours are renowned for their marshes, which are internationally important for the conservation of wading birds and wildfowl, however these saltmarshes are suffering dramatic deterioration, which needs to be addressed. These features are within numerous nature reserves, notably those at Titchfield Haven, Farlington Marshes and Hook Park, adjacent to the Hamble, which are designated overall as a Ramsar site, Special Protection Area (SPA), Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI). There are also a number of SSSIs inland, such as Hook Heath on the Potwell Tributary. These protected spaces provide vital habitats for wildlife, including for protected and endangered species like the European eel and water vole, but it is also important to extend the opportunities for wildlife beyond protected reservations.

#### 4.11.

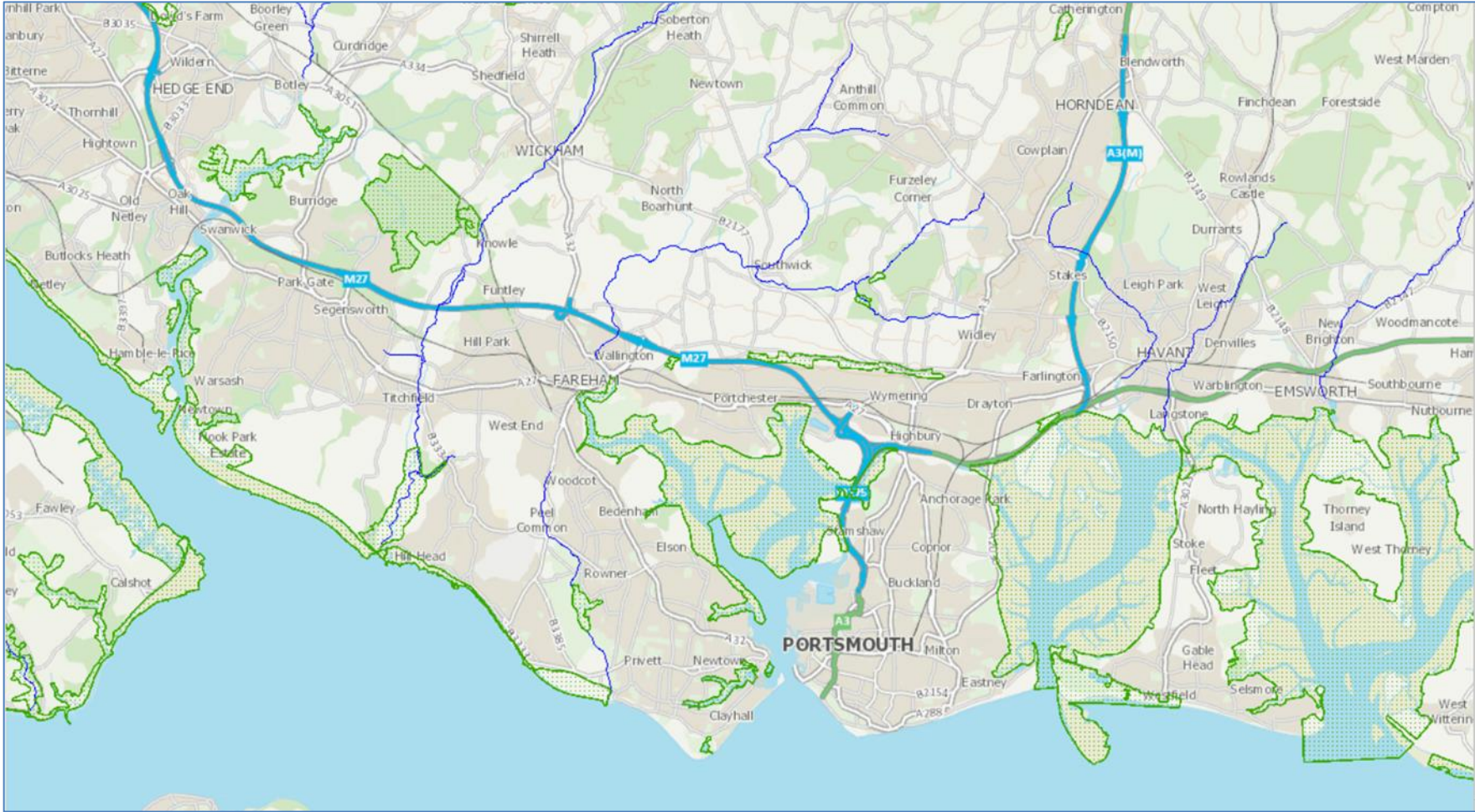
'East Hampshire' maybe an artificial area that doesn't comply with local authority boundaries, but all the often complicated surface water flows of major networks like the Hamble, Meon and Wallington all run within the catchment towards the Solent. The area has a population of approximately 460,000, and drains approximately 571 km<sup>2</sup>, extending from West Meon in the north to Gillkicker Point in the south, West Marden in the east to Harefield in the west.

#### 4.12.

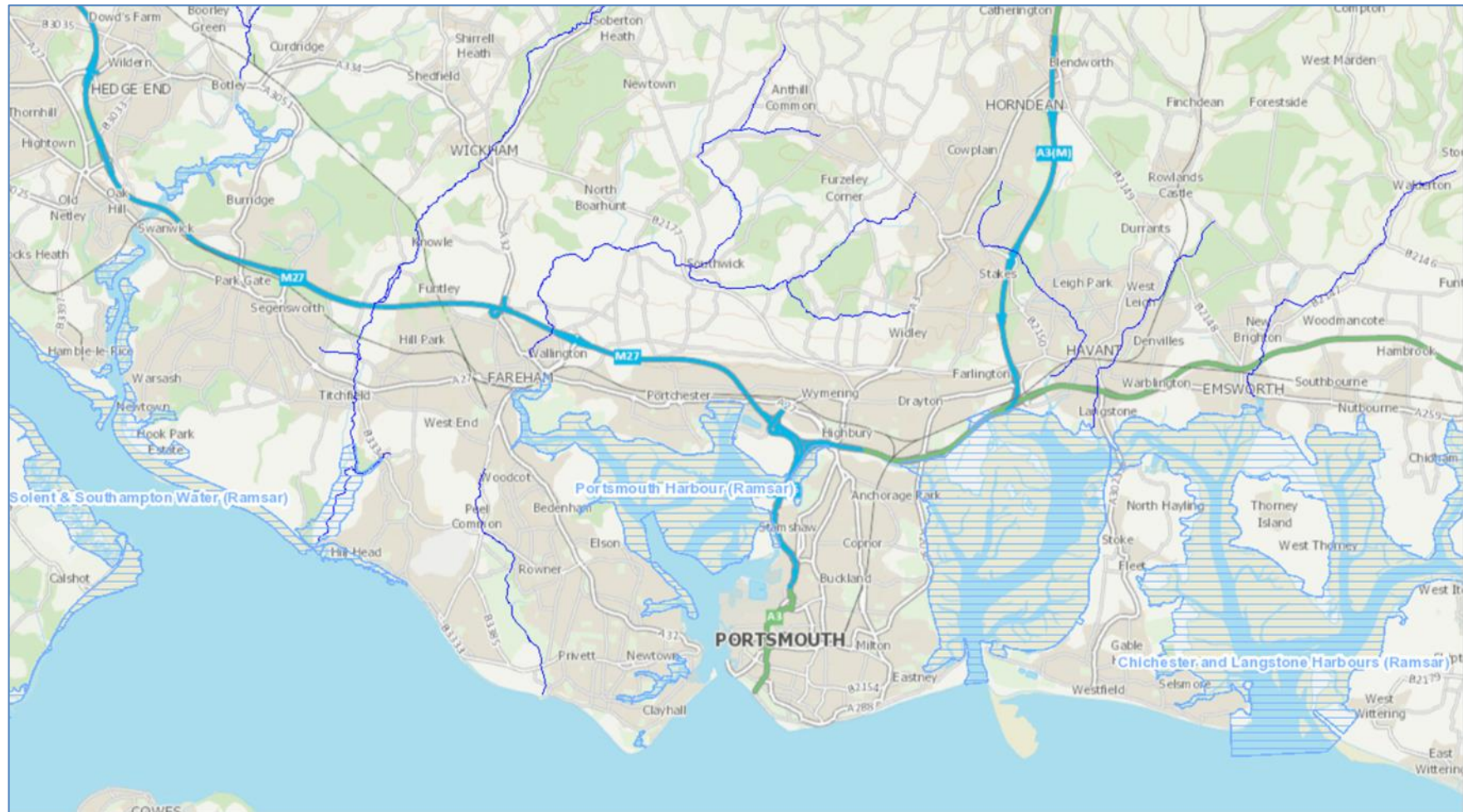
East Hampshire's river system and coastal edges have been heavily modified to provide protection from flooding and allow town expansion. A large budget is needed to maintain and upgrade these defences, especially along the sea front where, for example, low-lying Portsmouth is at risk from sea level rises caused by global warming. In many cases it is possible to introduce features to these defences that will support marine organisms, or restore natural processes to rivers, like the Hermitage Stream, without reducing its flood water capacity.



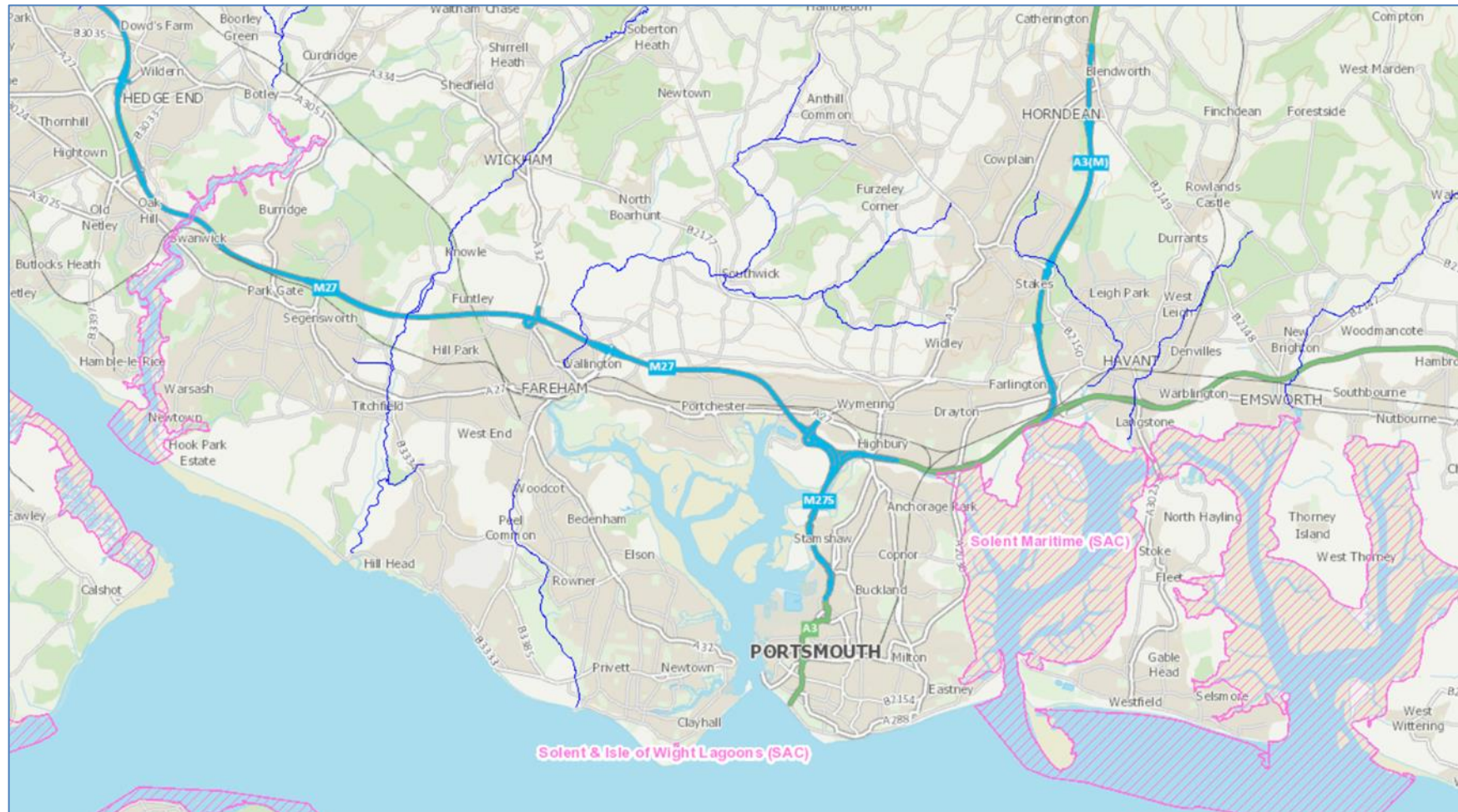
Sites of Special Scientific Interest (SSSI's)



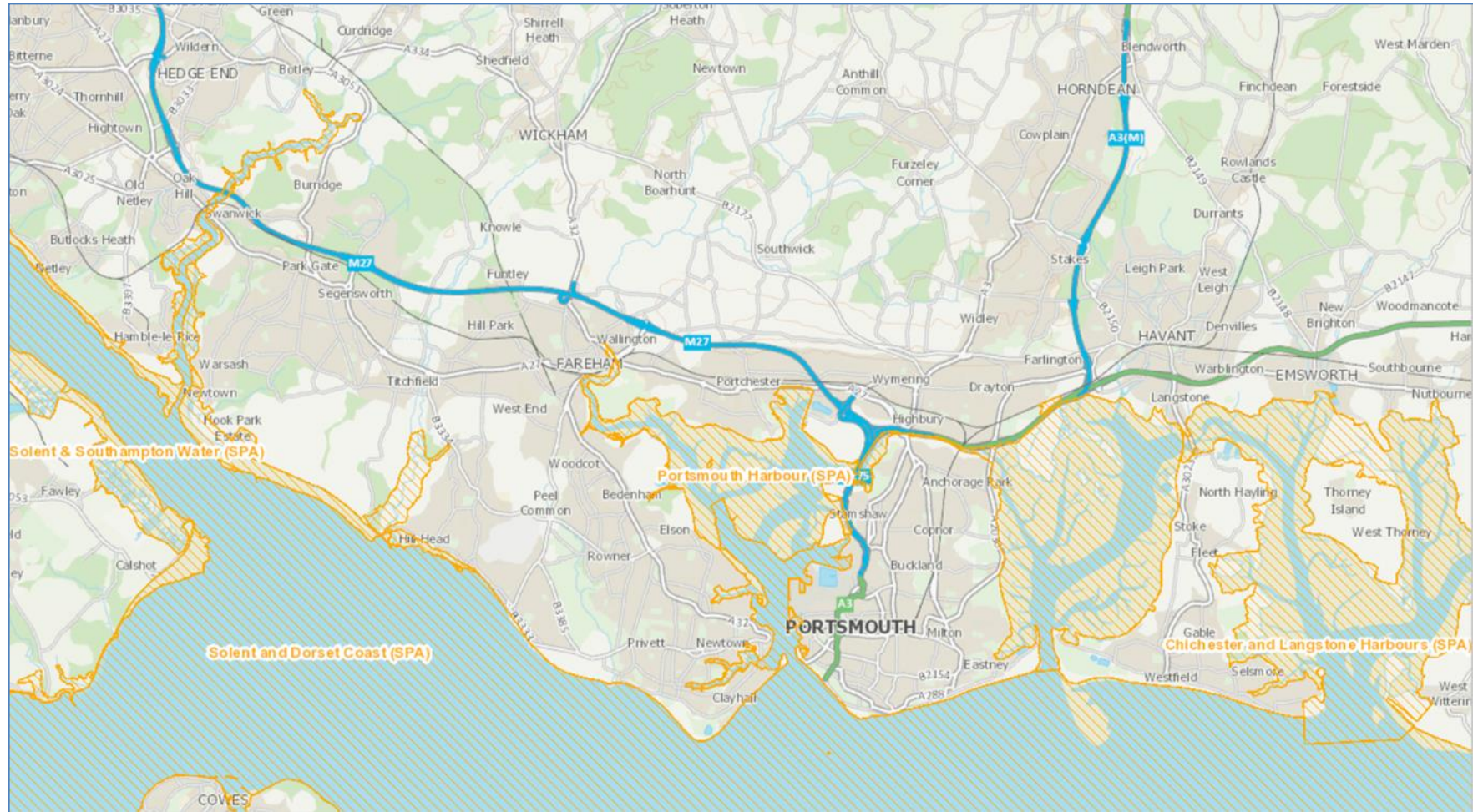
## Ramsar Sites



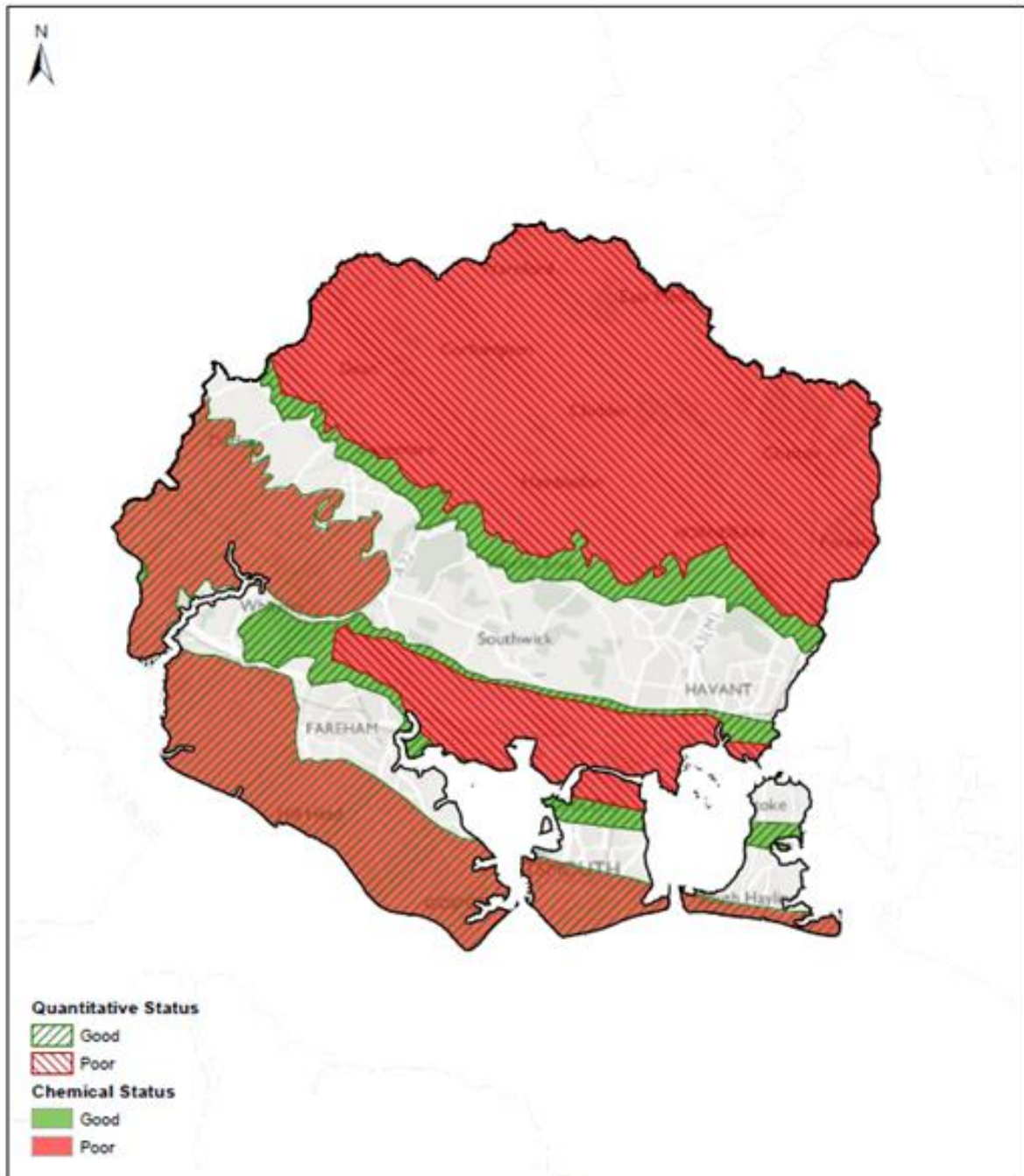
## Special Areas of Conservation (SACs)



## Special Protection Areas (SPAs)



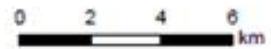
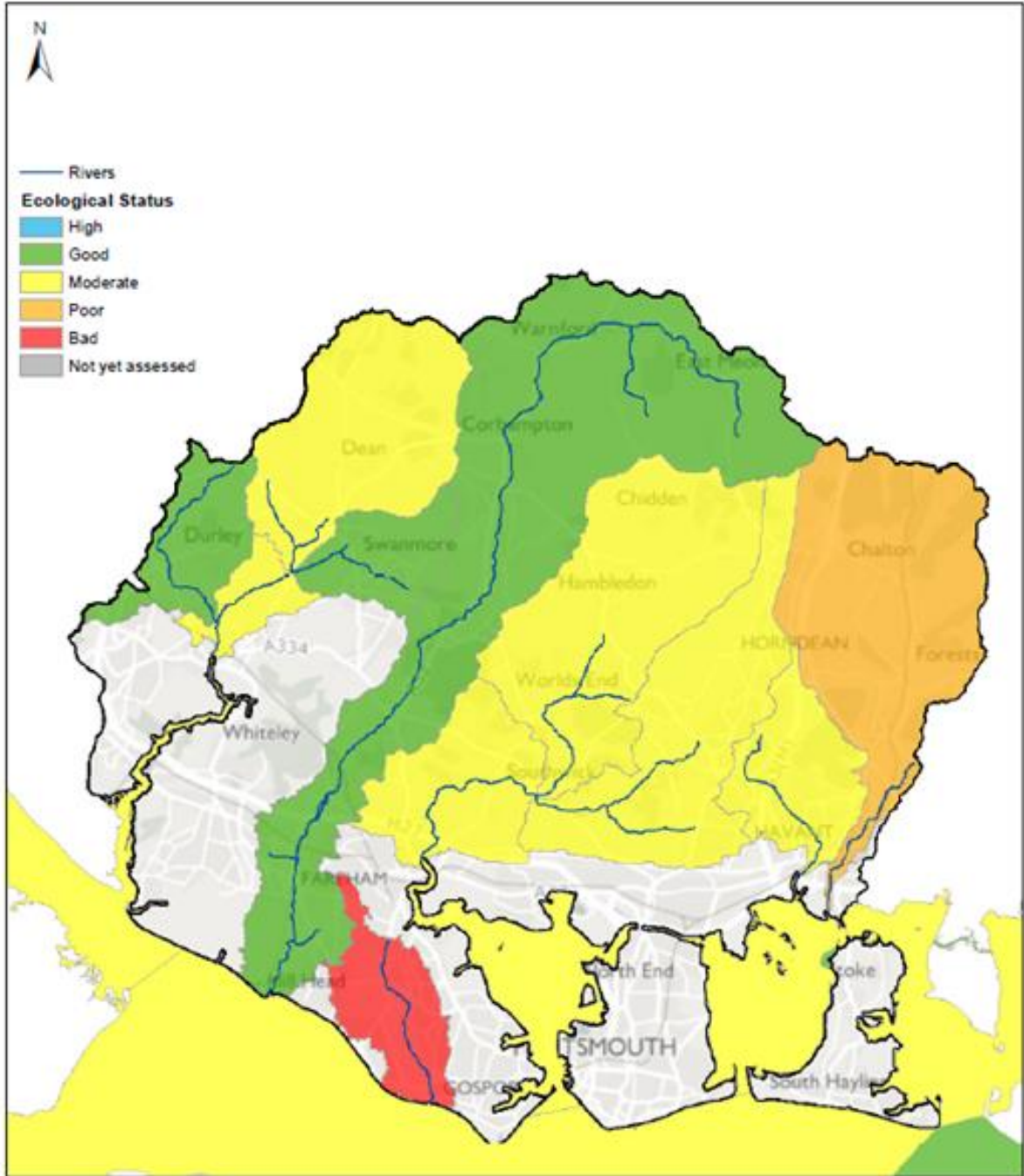
# Groundwater – Overall Status



0 2 4 6 km

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# Surface Water – Ecological Status



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## ISSUES IN EAST HAMPSHIRE WATER ENVIRONMENT

### 5.1.

Expanding, more concentrated human activity in East Hampshire and elsewhere has significantly altered the natural state of the catchment's water environment. There is more intensive farming, expanding urbanisation, sea level rise, 'coastal background' pollution from more remote sources, a loss of saltmarsh and other habitats. This activity locally or further away all has a consequence for East Hampshire.

### 5.2.

Based on our work so far, we plan to address the following key issues. Many of these are intrinsically linked. It is therefore important that projects take a holistic approach and deliver benefits across the subject areas wherever possible. We will continuously review and update our understanding of the issues in the catchment as new evidence becomes available, but at present the main issues we consider priorities are:



## **WATER QUALITY**

**UNDERSTANDING THE PRESENT STATUS OF THE CATCHMENT, IDENTIFYING SOURCES OF URBAN AND RURAL POLLUTION AND UNDERTAKING ACTIONS TO IMPROVE OVERALL STATUS.**

### 5.3.1

Water quality (of waterbodies and groundwater) within the catchment is affected principally by point source pollution, and diffuse pollution from several smaller sources that combine to have a bigger impact. The East Hants Chalk block and other groundwater aquifers are incredible natural resources that supply water to thousands of people in the catchment and beyond. Leaks from oil tanks, chemical spills and polluted water run-off into groundwater, rivers and coastal waters can lead to these resources being closed which has catastrophic consequences, affecting public water supply, and killing birds, fish and many other wildlife. Pollution will also affect valuable ground, water and air-borne invertebrates and microscopic life like diatoms.

### 5.3.2

For example, one of the most common rural pollutants are nutrients like nitrogen and phosphate, used in fertilizer. Excess nutrients can create large mats of algae, which smother mudflats and other important coastal habitat, preventing important bird populations from feeding.

## **Point Source Pollution**

### 5.3.3

There are places within the catchment where we know or could trace the specific sources of pollutants entering our waterbodies and groundwater, particularly nutrients and sediment. These sites include water treatment works and industrial premises, road drains and domestic misconnections. Many sewage treatment works now remove nutrients and there are signs of reduced nitrogen and receding mats of algae, for example, in Portsmouth and Langstone Harbours.

## **Rural Diffuse Pollution**

### 5.3.4

Run-off from fields, farmyards, manure heaps, tracks and septic tanks are some of the rural diffuse sources. This can contain nutrients, pesticides, organic waste which could leach down into the groundwater or enter ditches, streams and rivers, eventually draining into estuaries, harbours and the sea.

## **Urban Diffuse Pollution**

### 5.3.5

Pollution in urban areas can take many forms and sources and control is especially complex. Run-off from streets and roads carrying oil, rubber, heavy metals, hydrocarbons and other contaminants from automobiles.

### 5.3.6

Misconnected pipes (misconnections) and very old leaky sewers are another major source in towns.

### 5.3.7

Whilst it is true in all other areas too, prevention and control of diffuse pollution in the urbanised areas of the catchment are especially reliant on a large number of organisations/agencies with different but often overlapping responsibilities.

### 5.3.8

The catchment partnership allows us to take a more holistic source-to-sea approach, which helps us understand the issues better and how they overlap.

## **Coastal and Transitional Water Pollution**

### 5.3.9

Polluted water coming from inland rivers, streams and ditches degrades water quality. Water enriched with nutrients can cause excessive growth of green algae which smothers habitat and prevents birds feeding. Pollution like nitrogen circulates around the Solent, so currents from Southampton will have a consequence to Langstone and Portsmouth Harbours.

### 5.3.10

Organic faecal pollution from humans and animals is evident in the Solent, contaminating shellfish and other marine life. Most of the shellfish beds in the Solent are now closed, because their ecoli flesh condition is too low. This problem is worse in more enclosed areas like harbours. There are other pressures to shellfish notably habitat destruction, disease, predation, invasive species and over-fishing.

### 5.3.11

There are many historic landfill sites in East Hampshire, many around the coastline. As climate change prompts sea levels rise and more volatile weather, these landfills are being eroded, which releases more pollution along the coastline.



## WATER QUANTITY

RAISE AWARENESS OF LOW FLOWS AND SUPPORT INCREASED RESILIENCE TO ADDRESS FUTURE CHALLENGES.

### Low Flows

#### 5.4.1

The flows in the catchment's rivers is affected principally by the volume of rainfall and the amount of water extracted from the ground (abstraction) to provide water to industry and communities. Water abstraction is an increasing concern as demand for public water supply increases and more unpredictable weather may make rainwater supplies more volatile and hotter temperatures increase demand.

## DEVELOPMENT & GROWTH

DEVELOP ECOLOGICAL ENHANCEMENTS AND FLOOD RESILIENCE OPPORTUNITIES FROM LOCAL DEVELOPMENTS TO MAXIMISE THEIR CONTRIBUTION TO SUSTAINABLE WATER MANAGEMENT.



#### 5.5.1

Historically most East Hants' inland rivers, estuaries, harbours and coastlines have been modified to enable more development, better navigation, ports and harbour use, and reduced flood risk.

#### 5.5.2

It is now recognised that some of these modifications can be 'softened' or removed to improve natural processes and accommodate nature without compromising the function. For example, straightening and deepening a river channel may reduce flood risk at the top of a waterbody, but can increase risks downstream. Encasing river channel and banks and constructing weirs may speed up or halt flow as needed but can reduce water quality and remove any ecology – turning the river into a lifeless drain.

#### 5.5.3

'Natural flood management' is also becoming more popular, where natural processes are introduced upstream to reduce flows temporarily, which will stagger and slow the impact of river flooding downstream in increasingly urban zones. However, in the densely populated south, increased development may deprive us of the space for these measures.

#### 5.5.4

In the harbours and estuaries opportunities are being considered to reduce the impact of sea level rise due to climate change, dredging and erosion, by adding crevices and features to seawalls or tidal pools that enable marine organisms to colonise. At the moment this is very small scale and there is urgency needed, as England has lost 85% of its historic saltmarsh, in, e.g. Portsmouth Harbour and other locations locally.

### **Flood Risk**

#### 5.5.5

The main sources of flooding within the catchment are from groundwater, surface water and the sea, as sea levels rise. Climate change also means that flood defences and coastal towns will need to cope with heavier, more unpredictable rainfall in winter months.

#### 5.5.6

As mentioned above, rather than meeting the threat of sea level rise by building coastal defence walls higher – upstream flow delay/ reduction options will be increasingly considered.

#### 5.5.6

New developments now need to consider Sustainable Urban Drainage Systems (or SUDS) which can not only help filter pollutants in the water running off housing, but reduce and stagger flows to areas prone to flooding.

## **BIODIVERSITY AND NATURE RECOVERY**

**PROTECT AND IMPROVE OUR WATER ENVIRONMENT TO INCREASE CATCHMENT RESILIENCE.**



### **Fish and Eel passage**

#### 5.6.1

Historic and recent structures such as mill hatches and weirs have impounded and obstructed fish passage for hundreds of years. Many of these historic river functions, like water milling, have disappeared, so there are increasing opportunities to adapt or remove them to enable at-risk species like sea trout and eels to swim upstream and find spawning and nursery habitat. Water quality issues and low flows can also impede fish, for example by reducing dissolved oxygen in the water.

#### 5.6.2

Improvements to fish passage can also help to sustain the viability and appeal of the local coastal and upstream fisheries.

## **Biodiversity / green Infrastructure/ species recovery**

### 5.6.3

Poor water quality, low flows, waterbody modification, the spread of invasive non-native species and the loss of riparian habitat have all had serious consequences for biodiversity and have led to significant declines in the catchment's native wildlife. The narrowing of river corridors has made the catchment's water environment less sustainable and less resilient to the effects of climate change. The lack of managed and sensitive access to much of the catchment's water environment reduces the opportunity for raising awareness and engaging the involvement of local communities.

### 5.6.4

Some local authorities have green infrastructure strategies to try and address these issues.

## **Non-native invasive species**

### 5.6.5

The rapid spread of invasive species such as Japanese knotweed, Himalayan balsam, mink, American skunk-cabbage and the American signal crayfish along the catchment's watercourses has had serious adverse impacts on the native flora and fauna. Invasive, more vigorous and aggressive species out-compete indigenous native species. This in turn reduces biodiversity as dependent species find their habitats reduced. In some cases, the losses can be very substantial and bring about species loss or local endangerment.

## **COMMUNITY ENGAGEMENT & ACCESSIBILITY**

**INCREASE AWARENESS OF CATCHMENT WIDE CHALLENGES AND ENCOURAGE ACTIVE PARTICIPATION AT LOCAL AND CATCHMENT WIDE LEVELS.**



## **Recreational Pressures**

### 5.7.1

Poorly managed access and recreation in and around the catchment's water environment can cause disturbance to wildlife, increased water turbidity, bank erosion, loss of tranquility and interfere with legitimate land management activities. This is an important issue with significant planned expansion of residential developments. Off-road vehicles and illegal angling can create additional pressures as can backwash from boats, which can give rise to additional erosion and disturbance, notably on the saltmarshes.

## **Rubbish and litter**

### 5.7.2

Across the catchment the deposition of rubbish and litter in waterbodies leads to increased localised flood risk, danger to wildlife and significant loss of amenity. Accumulated rubbish can interfere with the proper functioning of water flow control structures and fly-tipped waste can pose a serious pollution risk. A historical legacy is buried waste sites, many filled in coastal locations. Sea erosion

and level rises in places like Portsmouth Harbour are now beginning to expose them. There is growing concern about the amount of plastic and plastic residues in the water system, which have short- and long-term consequences for the biological health of waterbodies.

## **Climate Change**

### **5.7.3**

Climate change is expected to modify rainfall, temperatures and hydrological systems. Future changes are predicted to result in sea level rises, reduced summer flows in rivers, increased winter rainfall and increased risk of intense rainfall events. Water demand may increase in response to higher summer temperatures, placing additional pressures on water resources. River systems may be among the ecosystems most sensitive to the effects of climate change.

### **5.7.4**

The nature of climate change makes it an issue that cuts right across this Catchment Management Plan.

### **5.7.5**

Some of these water environment issues can be dealt with at a local East Hampshire level, some, like the presence of mercury and other chemicals in the water column, must be resolved on a national or international scale. It is very important to raise awareness of climate change, EHCP is concentrating on those issues where our partners and the funding available can make a difference.

## PRIORITY ISSUES & ACTIONS FOR WATER ENVIRONMENT

### Priority issues

6.1.

The Table below outlines the most recent 2019 classification of the East Hampshire catchment showing how key elements of the water environment are managing. This is based on water environment investigations, monitoring and data, which provides the foundation for project development for the next RBMP period from 2021 – 27 (see Section 1 for an explanation of RBMP). See Appendix A for a more detailed breakdown of waterbody issues. This is a working document and may be adapted as other evidence becomes available.

6.2.

The Table below indicates the main water-related elements under pressure – so the actions to address these issues should influence what the partnership wants as priorities. Below are the current and potential future work areas.

### Table Key

↗	Good
	Moderate fail
	Poor fail
	Bad fail

In line with WFD classifications, items in the Table below with either a '↗' symbol or 'green coloured cell' are classified as a 'PASS'

Cells coloured in either 'Yellow', 'Brown' or 'Red' are a 'BELOW STANDARD'

Shellfish Waters are either classified as a 'PASS', represented below with either a '↗' symbol or 'green coloured cell', or as being 'BELOW STANDARD', represented as a 'Brown' coloured cell.

The abbreviation 'RLM' within the Table below refers to when a condition is related to rural land management

The abbreviation 'WA' within the Table below refers to when a condition is related to water abstraction

## WATER ENVIRONMENT ISSUES IN EAST HAMPSHIRE: 2019 CLASSIFICATIONS FOR 2021-27

	MAINLY MARINE ELEMENTS					MAINLY RIVER RELATED ELEMENTS											GROUNDWATER	
	Shellfish	Angiosperms	Dissolved Inorganic	Phyto-plankton	Macroalgae	Invert-ebrates	Dissolved oxygen	Fish	Ammonia	Phosphate	Mitigation needed for	Macrophytes	Mercury, PBDE, PFOS, PAH, PFOS (see section 1)	pH	Temp-erature	Hydro-logy (low	Water quantity	Water quality
<b>HAMBLE AND SOUTHAMPTON WATER</b>																		
Horton Heath	↗	↗	↗	↗	↗	↗	Deteriorating		↗	↗	↗	↗	Mercury, PBDE	↗	↗	↗	↗	↗
Moors Stream	↗	↗	↗	↗	↗	Deteriorating	↗	↗	↗	↗	↗	↗	Mercury, PBDE	↗	↗	WA	↗	↗
Upper Hamble	↗	↗	↗	↗	↗	↗			↗	RLM	↗	↗	Mercury, PBDE	↗	↗	↗	↗	↗
Main River Hamble	↗	↗	↗	↗	↗	↗			↗	RLM	↗	↗	Mercury, PBDE	↗	↗	↗	↗	↗
Hamble estuary/Soton Water	App' to Soton Water	↗	RLM	Deteriorating	↗	↗	↗	↗	↗	↗		↗	Mercury, PBDE, PAH	↗	↗	↗	↗	↗
Hook Lake	Likely to be failing, but too small and isolated to be a 'main river' like the other waterbodies																	
	1	0	1	1	0	1	3	3	0	2	1	0	5	0	0	1	0	0
<b>MEON AND SOLENT</b>																		
Meon	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	Mercury, PBDE	↗	↗	WA	↗	↗



Titchfield Haven	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	Mercury, PBDE, PFOS	↗	↗	W A	↗	↗
Alver	↗	↗	↗	↗	↗	Landfill and beach outfall blockage				↗	↗	↗	Mercury, PBDE	↗	↗	↗	↗	↗
Solent	Central Solent, Spithead-Stokes Bay	↗		↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗
	2	0	1	0	0	1	1	1	1	0	0	0	3	0	0	2	0	0
<b>WALLINGTON AND PORTSMOUTH HARBOUR</b>																		
Potwell Tributary	↗	↗	↗	↗	↗	↗	↗	South-wick Lake	↗	Deteriorating	↗	RLM	Mercury, PBDE, PFOS, PAH	↗	↗	↗	↗	↗
Upper Wallington	↗	↗	↗	↗	↗	↗		↗	↗	↗	↗		Mercury, PBDE	↗	↗	↗	↗	↗
Wallington Below Southwick	↗	↗	↗	↗	↗	↗	Deteriorating	↗	↗	RLM & urban	↗	↗	Mercury, PBDE, PFOS	↗	↗	W A	↗	↗
Portsmouth Harbour		Salt-marsh	RLM & urban	Deteriorating	RLM	↗	↗	↗	↗	↗		↗	Mercury, PBDE, PAH	↗	↗	↗	↗	↗
	1	1	1	1	1	0	2	1	0	2	1	2	4	0	0	1	0	0
<b>HERMITAGE, LAVANT AND LANGSTONE HARBOUR</b>																		

Hermitage Stream	↗	↗	↗	↗	↗	Modified channel			↗		Misc on'	↗	Mercury, PBDE	Deteriorating	Deteriorating	↗	↗	↗
Lavant Stream	↗	↗	↗	↗	↗	↗	↗	Barriers to passage	↗	↗	↗	↗	Mercury, PBDE	↗	↗	↗	↗	↗
Langstone Harbour		Saltmarsh	↗	↗	↗	↗	↗	↗	↗	↗		↗	Mercury, PBDE	↗	↗	↗	↗	↗
Langstone Oyster beds	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	Mercury, PBDE	↗	↗	↗	↗	↗
	1	1	0	0	0	1	1	2	0	1	2	0	4	1	1	0	0	0
<b>GROUNDWATER</b>																		
East Hants Chalk	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	Poor
East Hants Lambeth Group	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	Deteriorating	Deteriorating
South East Hants Bracklesham	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	Poor - due to Alver
South Hants Lambeth	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	↗	Deteriorating	Deteriorating
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4

<b>Total of fails inc' Good deteriorating</b>	4	2	3	2	1	3	7	7	1	5	4	2	All	1	1	4	2	2
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## Priority actions

For tables below, projects/work that is:

- 'Underway' = In **BLACK** text
- 'Aspirational' = In **RED** text
- 'Done' = In **GREEN** text

## Priority A – Diffuse Pollution Reduction



The 2019 Classifications Table shows that multiple failing elements are Shellfish, Dissolved Inorganic Nitrogen, Macroalgae, Invertebrates, Dissolved Oxygen, Phosphate, Macrophytes and Groundwater quality. A common cause of this failure is diffuse rural and urban pollution running from rivers, streams and ditches into the coastal waters. On the chalk downs, water leaches from the surface farmland down fissures into the chalk aquifers.

HAMBLE AND SOUTHAMPTON WATER	
Issues	Actions
Run-off from rural land drains into the groundwater sources from the higher land near Bishop's Waltham into the <b>East Hants Chalk</b> groundwater, <b>Upper Hamble</b> , <b>Moors Stream</b> and <b>Horton Heath Stream</b> . They all run south west into the <b>Main River Hamble</b> and the <b>Hamble estuary/ Southampton Water</b> .	<ul style="list-style-type: none"> <li>• Work with farmers especially on Upper Hamble to reduce/ divert run-off of fertilizer and polluted water from rural areas. A Natural England farm adviser is active.</li> <li>• Reduce misconnections from development along estuary, especially near Whiteley.</li> <li>• Reduce pollution from M27 bridge.</li> </ul>
Saltmarsh decline	<ul style="list-style-type: none"> <li>• See 'Space For Nature' below</li> </ul>

ALVER	
Issues	Actions
Direct rather than diffuse pollution from surrounding landfill causes water quality problems. The tidal exchange is impeded at the beach outfall by frequent shingle blockage.	<ul style="list-style-type: none"> <li>• Regular removal of shingle is needed to clear the blockage and allow tidal exchange.</li> <li>• Future works to be agreed.</li> </ul>

WALLINGTON AND PORTSMOUTH HARBOUR	
Issues	Actions
<p>Run off of polluted water, especially nitrates, from rural land and urban sources enter the <b>Upper Wallington</b> and <b>Potwell Tributary</b>, which drain west into the <b>River Wallington</b> and <b>Portsmouth Harbour</b>. Natural England farm adviser is also active. Macroalgae mats form in the harbour preventing protected birds feeding. Shellfish beds in the harbour are affected by urban sewage and from animal sources.</p>	<ul style="list-style-type: none"> <li>• Work with farmers on Wallington and Potwell Trib to reduce run-off of nutrient and faecal/organic pollution.</li> <li>• Reduce misconnections from Fareham and other properties around harbour.</li> <li>• Reduce septic tank pollution from Boarhunt area.</li> <li>• Install phosphate stripping at Southwick sewage treatment works – done 2020.</li> <li>• Install nitrate stripping at sewage treatment works – done.</li> </ul>

EAST HANTS CHALK, LAVANT AND HERMITAGE STREAMS, AND LANGSTONE HARBOUR	
Issues	Actions
<p>Misconnections in Havant pollute the <b>Hermitage stream</b> and affect <b>Langstone Harbour</b> shellfish beds. Modified Hermitage stream channel affects river water quality.</p> <p>High nitrate levels in <b>Lavant Stream</b> from rural run-off and urban inputs pollute <b>Langstone Harbour</b>, creating macroalgae mats that prevent protected birds feeding.</p>	<ul style="list-style-type: none"> <li>• Misconnections investigation work by Southern Water, plus <b>volunteer Outfall Safari initiative being planned (March 21)</b>.</li> <li>• Portsmouth Water work with farmers on the downs to use less N, encourage cover crops to soak up excess nitrates.</li> <li>• Install nitrate stripping at sewage treatment works – done.</li> </ul>

## Priority B – Space for Nature on Modified Waterbodies



Multiple elements not up-to-standard are **fish, dissolved oxygen, invertebrates, pH, saltmarsh (Angiosperms), shellfish** and **mitigation needed for modified** waterbodies. A common cause is the pressure of development, structures like sea walls, impoundments and weirs that prevent fish passage, and don't provide refuges for ecology, nor allow natural processes that would prevent the decline in water life and plants in fresh- and saltwater areas.

HAMBLE AND SOUTHAMPTON WATER/ HAMBLE ESTUARY	
Issues	Actions
Weirs and other impoundments on the river impede fish passage at <b>Botley</b> and other points upstream.	<ul style="list-style-type: none"> <li>• <b>Bishops Waltham North Ponds desilted and maintained.</b> More improvements continuing.</li> <li>• Fish passage is needed at three points along the river above Botley.</li> <li>• <b>Since 2012, bypasses have been installed at Botley, Durley Mill and a farm weir on the Upper Hamble.</b></li> <li>• <b>A fish refuge has also been dug at Wangfield Lane by PDAS.</b></li> </ul>
Need to provide refuge for spawning, juvenile and mature migratory fish in the estuary.	<ul style="list-style-type: none"> <li>• Monitor Whiteley building works along the east side of the Hamble estuary to prevent further damage to habitat for migratory and resident fish on Shawford Lake and other small tributaries.</li> <li>• Fish habitat improvement survey commissioned for Shawford Lake.</li> </ul>
Retreat, constraint and fragmentation of saltmarsh in <b>Hamble estuary</b> . Major causes are erosion from more volatile sea waves and currents, greater modification of coastal edges and development around estuaries. High nitrate and resulting macroalgae can smother saltmarsh.	<ul style="list-style-type: none"> <li>• Restore oysters in the Hamble estuary by seeding the estuary bed – Blue Marine Foundation and Solent Restoration Project.</li> <li>• Temporary artificial refuges are being trialled to diffuse wave energy and help saltmarsh re-establish and provide refuge for oysters.</li> </ul>

Decline of shellfish and oysters in the <b>Approaches To So'ton Water</b> shellfish beds: over fishing, possibly dredging and the removal/decline of habitat, poor water quality, and the presence of non-natives have contributed.	<ul style="list-style-type: none"> <li>• Provide temporary refuge (as above) for oysters to colonise.</li> <li>• <b>More actions needed to address deterioration of beds.</b></li> </ul>
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<b>MEON AND TITCHFIELD</b>	
<b>Issues</b>	<b>Actions</b>
Structures along the river impede natural processes.	<ul style="list-style-type: none"> <li>• <b>A management plan is needed for the lower Meon. Liaison with all the local stakeholders to be resumed.</b></li> <li>• <b>Repair and preferably by-pass is needed at Bridge Cottage, Titchfield Mill and other points along the river.</b></li> </ul>

<b>ALVER</b>	
<b>Issues</b>	<b>Actions</b>
Direct rather than diffuse pollution from surrounding landfill causes water quality problems. The tidal exchange is impeded at the beach outfall by frequent shingle blockage.	<ul style="list-style-type: none"> <li>• Regular removal of shingle is needed to clear the blockage and allow tidal exchange.</li> <li>• Future works to be agreed.</li> </ul>

<b>WALLINGTON WATERBODIES, PORTSMOUTH HARBOUR AND SOLENT</b>	
<b>Issues</b>	<b>Actions</b>
Impoundment at Southwick Lake prevents passage of fish upstream.	Major funding required to provide fish passage at Southwick Lake
Flooding threat to Wallington Village.	Flood defences improved. <b>Upstream 'natural flood management to slow flood waters, reduce field run-off and restore natural processes.</b>
Harbour edges are heavily modified and contain historic landfill. Climate change and sea level rises will impact flood defences and marine ecology.	As part of harbour flood defence work: <ul style="list-style-type: none"> <li>• <b>18 tidal pools installed near Southsea</b></li> <li>• small saltmarsh creation at Alverstoke lake</li> <li>• <b>suspended pools to be installed at Forton</b></li> <li>• <b>biogenic oyster reef at Southsea.</b></li> </ul>
Shellfish beds are failing	<b>Measures needed to tackle decline.</b>

HERMITAGE, LAVANT AND LANGSTONE HARBOUR	
Issues	Actions
Modified channel of <b>Hermitage Stream</b> has no refuges for river-life, except pne reach through Leigh Park.	<ul style="list-style-type: none"> <li>Mitigation for building Havant Thicket reservoir may provide in-channel restoration of natural processes.</li> </ul>
Sea trout and eels impeded by double weir at West Mill on <b>Lavant</b> .	<ul style="list-style-type: none"> <li><b>Fish pass planned and in-channel habitat improvements.</b></li> </ul>
<b>Harbour</b> edges are heavily modified and contain historic landfill. Climate change and sea level rises will impact flood defences and marine ecology	<p>As part of harbour flood defence work:</p> <ul style="list-style-type: none"> <li><b>Textured sea wall trial</b> that will be included along 2km of wall at Eastern Rd</li> <li><b>High tide wader roost island to be constructed.</b></li> </ul>



## Priority C – Water for Nature



Multiple elements not up-to-standard are low flows and invertebrates. The common cause for these are the abstraction of water, mainly for public water supply.

HAMBLE	
Issues	Actions
Water levels in the <b>Upper Hamble</b> have been recorded as much lower than in previous years. Structures downstream impound water and increase levels behind structures.	<ul style="list-style-type: none"> <li>• <b>Make the stream more resilient to low flows by fencing certain reaches to allow vegetation to reestablish.</b></li> </ul>

MEON AND TITCHFIELD HAVEN	
Issues	Actions
Over-abstraction from upstream Meon needs to be prevented to ensure enough water drains through designated Titchfield Haven.	<ul style="list-style-type: none"> <li>• <b>Understand if low flows or diffuse pollution causes excess macroalgae in wider sections of the lower Meon.</b></li> </ul>

HAVANT, LAVANT AND LANGSTONE HARBOUR	
Issues	Actions
Inadequate water supply across south England.	<ul style="list-style-type: none"> <li>• Havant Thicket reservoir to be constructed by Portsmouth Water.</li> </ul>

## Priority D – Community and Volunteer Action



ALL WATERBODIES	
Issues	Actions
<p><b>Plastic</b> pollution on beaches and rivers. A lot of plastics move downstream</p> <p><b>Microplastics</b> can't be filtered out by screens at sewage treatment works.</p>	<ul style="list-style-type: none"> <li>• <b>Involve volunteers in up- and downstream communities.</b> Eg Hermitage to Langstone Harbour. Friends of the harbour has been active for many years.</li> <li>• <b>Approach to be decided.</b></li> </ul>
<p><b>Non-native plant</b> removal needed on Wallington, Hamble.</p>	<ul style="list-style-type: none"> <li>• Teams have previously removed non natives on the Hamble and Potwell Trib' but sites need revisiting.</li> </ul>
<p><b>Water quality testing</b></p>	<ul style="list-style-type: none"> <li>• <b>Approach and method has been developed but actual testing not yet done.</b></li> </ul>

## CURRENT & FUTURE ACTIONS – FURTHER DETAIL

7.1.

The project plan will continue to be developed and updated during the plan between 2020 and 2027. It will be a live document and the foundation for the delivery, reviewed and updated to reflect changes in circumstances and needs, drawing on the ongoing assessment of the catchment's waterbodies, local pressures, and needs/opportunities that arise, for example, where waterbodies are affected by new development or local events.

7.2.

Projects are colour coded to reflect how they will contribute to improvement of the water environment and their ability to deliver multiple benefits across the range of Partnership objectives.

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### DEVELOPMENT & GROWTH

DEVELOP ECOLOGICAL ENHANCEMENTS AND FLOOD RESILIENCE OPPORTUNITIES FROM LOCAL DEVELOPMENTS TO MAXIMISE THEIR CONTRIBUTION TO SUSTAINABLE WATER MANAGEMENT.



### WATER QUALITY

UNDERSTANDING THE PRESENT STATUS OF THE CATCHMENT, IDENTIFYING SOURCES OF URBAN AND RURAL POLLUTION AND UNDERTAKING ACTIONS TO IMPROVE OVERALL STATUS.

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### COMMUNITY ENGAGEMENT & ACCESSIBILITY

INCREASE AWARENESS OF CATCHMENT WIDE CHALLENGES AND ENCOURAGE ACTIVE PARTICIPATION AT LOCAL AND CATCHMENT WIDE LEVELS.



### WATER QUANTITY

RAISE AWARENESS OF LOW FLOWS AND SUPPORT INCREASED RESILIENCE TO ADDRESS FUTURE CHALLENGES.

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### BIODIVERSITY AND NATURE RECOVERY

PROTECT AND IMPROVE OUR WATER ENVIRONMENT TO INCREASE CATCHMENT RESILIENCE.



## Works and projects to improve the water environment in East Hants by partners

EHCP catchment plan issue/theme	Issues to be addressed	Actions	Location	EHCP involvement	Relevant partners	Development & delivery 20/21	21/22	22/23	23/24	24/25
<b>HAMBLE AND SOUTHAMPTON WATER BODIES</b>										
Water Quality	Diffuse pollution and stream ecology resilience	Measures to reduce run-off and poaching at <u>2 farms on Upper Hamble</u>	Upper Hamble	Support and contribute to project	Landowners, EA, ARRT,					
Water Quantity										
Biodiversity & Nature Recovery										
Water Quality	Water quality improvement	Developing project to trial <u>reduction in diffuse nitrogen and phosphate pollution</u> . Using 'media' in nets submerged in salt- and fresh-waterbodies with high N and P.	Hamble estuary and river	To support and contribute to project	Uni' of Portsmouth, EA, Southern Water? Landowners, NE					
Biodiversity & Nature Recovery	Marine biology restoration	Work to restore Solent: >Oysters - <u>Hamble estuary reef trial</u> >Oysters - <u>Southsea reef on revetment</u> . >Other shellfish projects to come?	Hamble estuary	Agree partner approach to this - how to support?	Blue Marine Foundation, Uni' of Portsmouth, ESCP, Nat England, IFCA South, EA, Solent Forum, councils, all					
Water Quality										

Development & Growth	Coastal edge improvement	<u>Mapping of coastal edges</u> to id improvement opportunities. Soton Water mapped, Hamble estuary checked at local level. More areas to do.	Soton Water	Agree how to use Hamble detail. Other mapping to be done	Solent Forum, EA, all					
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**MEON AND TITCHFIELD HAVEN**

Biodiversity & Nature Recovery	Habitat improvement	<u>River Meon improvements</u> including: >Water vole reintroduction >Channel improvements at E Meon and <b>??</b> <b>&gt;??</b>	River Meon	Support and contribute to project measures	Meon Valley Partnership, South Downs National Park, EA, other stakeholders					
Biodiversity & Nature Recovery	Water level management	Reconvene lower Meon stakeholders to agree plan	River Meon and Titchfield	Support and contribute to project measures	Meon Valley Partnership, South Downs National Park, EA, other stakeholders					

**ALVER**

Water Quality	Upstream river water quality	Beach shingle removal to clear Alver blockage	River Alver	Coastal Partnerships, Gosport BC	EA, NE	Trialled in 2018 but not yet fully adopted				
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**WALLINGTON, PORTSMOUTH HARBOUR AND SOLENT**

Development & Growth	Natural flood management	Reduce flood risk to Wallington Village, and gain environmental improvements upstream on <u>River Wallington and Potwell Tributary.</u>	Wallington Below  Southwick	Understand and contribute to project development	Wallington Village Community Assoc', EA, HIWWT, landowners, NE	Yet to be trialled				
Biodiversity & Nature Recovery										
Biodiversity & Nature Recovery	Marine habitat restoration	Work to restore Solent: > <u>Mudflats</u> , > <u>Saltmarsh</u> > <u>Seagrass</u>	Mainly Portsmouth Harbour (and Langstone)	Agree partner approach to this - how to support?	Solent Forum, Nat England, IFCA South, EA, Solent Forum, councils, all	Yet to be developed				
Water Quality										
Biodiversity & Nature Recovery	Marine biology restoration	Work to restore Solent: > <u>Oysters - Hamble estuary reef trial</u> > <u>Oysters - Southsea reef on revetment.</u> >Other shellfish projects to come?	Southsea	Agree partner approach to this - how to support?	Blue Marine Foundation, Uni' of Portsmouth, ESCP, Nat England, IFCA South, EA, Solent Forum, councils, all	Biogenic reef on Southsea revetment				
Water Quality										

Development & Growth	Marine biology restoration	<u>Modifying sea walls to include marine enhancements</u> , especially by East Solent Coastal Partnership	Portsmouth Harbour	To find funding opportunities with ESCP	ESCP, EA	Small scale saltmarsh at Alverstoke Lake Suspended wall basins at Forton Lake Tidal rock pools by harbour entrance				
Community Engagement & Accessibility	Marine litter, landfill	<u>Preventing plastic pollution</u> Interreg project - work with communities and business sectors. Focus on Portsmouth.	Portsmouth, <b>Potwell Trib to Wallington?</b>	Coordinate with others	Councils, all	Ongoing				
Community Engagement & Accessibility	Marine litter, landfill	<u>Tackling coastal landfill</u> , as part of 'Standing Conference on Problems Associated with the Coastline' (SCOPAC)	Especially Portsmouth Harbour	Agree partner approach to this - how to support?	ESCP, all	Yet to be developed				
<b>HAVANT, LAVANT AND LANGSTONE HARBOUR</b>										
Water Quantity	Water resources protection	Understanding and contributing to <u>Havant Thicket reservoir development</u> by Portsmouth Water.	Havant Thicket	Consider impact of reservoir and potential benefits	All		tbc			
Biodiversity & Nature Recovery	River habitat improvement									
Development & Growth										

Development & Growth	River and harbour wildlife improvement	> <u>Lavant Stream fish pass installation and channel improvements</u> , alongside cycle-walk way.	Lavant in Havant	Support project development	Havant BC, Arun & Rother Rivers Trust, EA, landowners				
Biodiversity & Nature Recovery									
Development & Growth	Marine biology and bird habitat improvement	<u>Modifying sea walls to include marine enhancements</u> , especially by East Solent Coastal Partnership	Langstone and Portsmouth Harbours	To find funding opportunities with ESCP	ESCP, EA	Trial successful. Installation on Eastern Rd, Langstone Harbour	Yet to be developed: high tide wader roost island		
Water Quality	Marine habitat restoration and water quality	<u>Algal mats (macroalgae) reduction/ use</u> - project by Uni of Portsmouth with Euro' Interreg funding: 'Rapid Reduction of Nutrients in Transitional Waters' (RANTRANS)	Langstone Harbour	To contribute and support the project	Uni' of Portsmouth, others?				
Biodiversity & Nature Recovery									
Community Engagement & Accessibility	Marine litter, landfill	<u>Preventing plastic pollution</u> Interreg project - work with communities and business sectors. Focus on Portsmouth.	Portsmouth, Hermitage Stream - Langstone Harbour	Coordinate with others	Councils, all	Ongoing			
Community Engagement & Accessibility	Marine litter, landfill	Tackling <u>coastal landfill</u> , as part of 'Standing Conference on Problems	Langstone Harbour	Agree partner approach to this - how to support?	ESCP, all	Yet to be developed			



		Associated with the Coastline' (SCOPAC)								
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**EAST HANTS WIDE**

<b>Biodiversity &amp; Nature Recovery</b>	Natural capital	Understanding the value of <u>natural capital</u> and using it to improve the environment: >Channel Payments for Ecosystem Services (CPES) - Portsmouth Water and Southern Water involving 'buyers and sellers' at trial sites (in Sussex). >Report by Uni' of Portsmouth to value marine Natural Capital.	East Hants - wide	To agree how to apply NC to East Hants environmental improvement	Southern Water, Portsmouth Water, EA, S Downs Nat Park, Uni of Portsmouth					
<b>Water Quality</b>										
<b>Water Quality</b>	Nitrate neutrality	Developing <u>mitigation measures for development N and P</u> pollution. Link offset land etc to other nearby environmental opportunities. To include on Local Ecology	East Hants - wide	To help find mitigation measures	Councils, CLA					

		Network and Nature Recovery Networks (see above).								
<b>Biodiversity &amp; Nature Recovery</b>	Trees and water	Impact of <u>ash dieback</u> in East Hampshire.	East Hants - wide	Understand the impact of losing ash trees to ash dieback disease	Tree Council, All	to be developed				
<b>Development &amp; Growth</b>	Flood risk and environmental improvement	Understand <u>flood risk</u> reduction plans in Solent, and gain environmental improvements from them. Influence new 6-year flood plans.	East Hants - wide	Understand plans and where to focus.	EA, ESCP, councils					
<b>Water Quantity</b>	Water resources protection	> <u>Water use Defra consultation.</u> > <u>Abstraction and licences</u> >Local projects to develop awareness	East Hants - wide	Understand pressures	All					
<b>Water Quantity</b>	Water resources protection and diffuse	<u>Downs &amp; Harbours Clean Water Partnership</u> works with	East Hants - wide	Support and contribute to projects	Portsmouth Water, NE, EA					

<b>Water Quality</b>	pollution reduction	farms: >Protecting groundwater >Reducing diffuse pollution to surface water. Work is mainly work								
Community Engagement & Accessibility	Condition of East Hampshire's water environment	Water Framework Directive/ River Basin Management Plan 3 (2022-27) preparation- <u>Challenges and Choices</u> consultation, Catchment Partnership Page, draft RBMP consultation.	East Hants - wide	To respond and influence EA plans	EA, All					
Community Engagement & Accessibility	Condition of East Hampshire's water environment	Water Framework Directive – new waterbody condition <u>classifications</u> for 2021-27	East Hants - wide	To inform future plans and projects	EA, all					
Community Engagement & Accessibility	Condition of East Hampshire's water environment	New condition assessments for <u>Protected Areas</u> - date?	East Hants - wide	To inform future plans and projects	Nat England (DA), IFCA South?	??				
Community Engagement & Accessibility	Condition of East Hampshire's water environment	<u>Local ecological networks</u> and <u>Nature Recovery Networks</u> by	East Hants - wide	To inform future plans and projects	HBIC, Hants CC, all					

		Hants Biodiversity Info' Centre, Hants CC								
Community Engagement & Accessibility	Condition of East Hampshire's water environment	Uptake of <u>Countryside Stewardship</u> , and New Land Management Schemes	East Hants - wide	To inform future plans and projects	NE, CLA, councils					
Community Engagement & Accessibility	<u>Funding</u>	>WFD funding opportunities, >PW Biodiversity grant, >supermarket carrier bag grants, >Landfill tax, >Nat Heritage Lottery Fund, >Others?	East Hants - wide	To inform future plans and projects	EA, PW, All	Ongoing				
Community Engagement & Accessibility	Marine litter, landfill	<u>Clean seas and shores</u> in Solent	Coastline	Coordinate with others	Solent Forum, all	Ongoing				

## **MONITORING PROGRESS & REPORTING**

8.1.

Monitoring of progress and the efficacy of projects is a key element of the Partnership's work, and a core element of the CaBa approach. We have made good progress since the first Plan in 2014, but there is much more yet to achieve. Our monitoring will respond to DEFRA's National Success Measures (NSMs).

### **National Success Measures (NSMs)**

8.2.

The Department for Food and Rural Affairs has set three measures for 2020/2021 for the purposes of monitoring the effectiveness of catchment partnerships. These are:

- NSM A – Improving resilience  
We expect catchment partnerships to demonstrate good governance through building a diverse and inclusive partnership:
  - o Undertake a routine partnership self-evaluation exercise, Eunomia self-evaluation report
- NSM B – Engagement  
As part of the widening remit of catchment partnership working, we expect catchment partnerships to be able to demonstrate they have:
  - Engaged with the Challenges and Choices and draft River Basin Management Plan consultations
  - A catchment plan available online Catchment plans CaBA website
  - Completed the Catchment Partnership Pages, by end September 2020
- NSM C - Monitoring/reporting  
Complete accurately and in a timely manner the Statement of Account and annual CaBA Monitoring and Evaluation assessment.

### **CaBa Partnership Pages**

8.3.

Monitoring and reporting will also be done in accordance with the guidance provided by CaBa using the CaBa Partnership Pages.

*ENDS*



# THE EAST HAMPSHIRE CATCHMENT PARTNERSHIP

Catchment Management Plan  
2021 - 2027

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**APPENDIX A –**  
**2020 WATERBODY CLASSIFICATIONS FOR THE EAST HAMPSHIRE CATCHMENT**

Waterbody Classification	Status in WFD Context
High	Pass
Good	Pass
Moderate	Below standard
Poor	Below standard
Bad	Below standard

**HAMBLE WATERBODIES**

**UPPER HAMBLE GB107042016280 - River**

Overall Status is Moderate

Main focus:

- Phosphate pollution: mainly from diffuse source, cattle-in-river/ agri-rural land management (sediment).
- Fish: barriers to fish and poor habitat.
- Dissolved oxygen: low levels will affect fish and other river life.
- Mercury: new evidence shows presence of this restricted chemical.
- Polybrominated diphenyl ethers (PBDE): new evidence shows presence of this restricted chemical.

**MAIN RIVER HAMBLE GB107042016250 - River**

Overall Status is Moderate

Main focus:

- Phosphate pollution: mainly from diffuse source, cattle-in-river/ agri-rural land management (sediment).
- Fish: barriers to fish and poor habitat.
- Dissolved oxygen: has deteriorated, but still Good.
- Mercury: new evidence shows presence of this restricted chemical.
- Polybrominated diphenyl ethers (PBDE): new evidence shows presence of this restricted chemical.

**HORTON HEATH STREAM GB107042016270 - River**

Overall Status is Moderate

Main focus:

- Fish: diffuse pollution from urban and rural sources. Has deteriorated.
- Dissolved oxygen: has deteriorated, but still Good.
- Mercury: new evidence shows presence of this restricted chemical.
- Polybrominated diphenyl ethers (PBDE): new evidence shows presence of this restricted chemical.

### **MOORS STREAM GB107042016260 - River**

Overall Status is **Moderate**

Main focus:

- Invertebrates: has deteriorated, but still Good. Rural land pollution?
- Hydrology (low flows): due to abstraction.
- Mercury: new evidence shows presence of this restricted chemical.
- Polybrominated diphenyl ethers (PBDE): new evidence shows presence of this restricted chemical.

### **HAMBLE ESTUARY - part of SOUTHAMPTON WATER GB650705150000 – transitional coastal**

Overall status is **Moderate**

Main focus:

- Phytoplankton: has deteriorated.
- Dissolved Inorganic Nitrogen: sources include agriculture and rural land management, and wastewater treatment.
- Mitigation measures needed for modifications: sea walls and other features need enhancements for ecology as sea levels rise and development pressures increase.
- Benzo(g-h-i)perylene: new evidence shows presence of this restricted chemical.
- Mercury: new evidence shows presence of this restricted chemical.
- Polybrominated diphenyl ethers (PBDE): new evidence shows presence of this restricted chemical.

### **WALLINGTON, POTWELL and PORTSMOUTH HARBOUR WATERBODIES**

#### **MEON GB107042016640 - River**

Overall Status is **Moderate**

Main focus:

- Mercury: new evidence shows presence of this restricted chemical.
- Polybrominated diphenyl ethers (PBDE): new evidence shows presence of this restricted chemical.

#### **TITCHFIELD HAVEN GB30745606 - Lake**

Overall status is **Moderate**

Main focus:

- Hydrology (low flows): due to abstraction.
- Mercury: new evidence shows presence of this restricted chemical.
- Polybrominated diphenyl ethers (PBDE): new evidence shows presence of this restricted chemical.
- Perfluorooctane sulphonate (PFOS): new evidence shows presence of this restricted chemical.



### **ALVER GB107042011370 - River**

Overall status is now **Bad**

Main focus:

- Invertebrates: ammonia, low dissolved oxygen, lack of natural river features, diffuse pollution from landfill and urban sources.
- Ammonia: from landfill and urban sources.
- Dissolved oxygen: from lack of natural river features, diffuse pollution from landfill.
- Fish: diffuse pollution from landfill and urban sources, lack of natural river features.
- Mercury: new evidence shows presence of this restricted chemical.
- Polybrominated diphenyl ethers (PBDE): new evidence shows presence of this restricted chemical.

### **WALLINGTON, POTWELL and PORTSMOUTH HARBOUR WATER BODIES**

#### **UPPER WALLINGTON GB107042016350 - River**

Overall status is **Moderate**

Main focus:

- Dissolved oxygen: has deteriorated due to abstraction and low flows.
- Macrophytes (river vegetation) have improved.
- Mercury: new evidence shows presence of this restricted chemical.
- Polybrominated diphenyl ethers (PBDE): new evidence shows presence of this restricted chemical.

#### **WALLINGTON BELOW SOUTHWICK GB107042016360 - River**

Overall status is **Moderate**

Main focus:

- Phosphate: diffuse pollution from rural land and urban sources. Local sewage treatment plant now treats for phosphate.
- Dissolved oxygen: has deteriorated. Cause is not clear.
- Hydrology (low flows): due to abstraction.
- Mercury: new evidence shows presence of this restricted chemical.
- Polybrominated diphenyl ethers (PBDE): new evidence shows presence of this restricted chemical.
- Perfluorooctane sulphonate (PFOS): new evidence shows presence of this restricted chemical.

### **POTWELL TRIB GB107042016400 - River**

Overall status is **Moderate**

Main focus:

- Macrophytes (water plants): diffuse pollution from agriculture and rural land management.
- Fish: barriers to passage, especially at Southwick Lake.
- Phosphate: has deteriorated.
- Mercury: new evidence shows presence of this restricted chemical.
- Benzo(g-h-i)perylene: new evidence shows presence of this restricted chemical.
- Polybrominated diphenyl ethers (PBDE): new evidence shows presence of this restricted chemical.
- Perfluorooctane sulphonate (PFOS): new evidence shows presence of this restricted chemical.

### **PORTSMOUTH HARBOUR GB580705140000 – transitional-coastal**

Overall status is **Moderate**

Main focus:

- Macroalgae: excess nitrate from rural land, sewage, urban sources and 'coastal background'.
- Dissolved Inorganic Nitrogen: sources include agriculture and rural land management, sewage, urban diffuse sources and 'coastal background'.
- Angiosperms (saltmarsh Mod, seagrass Good): under pressure from coastal development.
- Phytoplankton: is Good but deteriorating.
- Mitigation measures needed for modifications: sea walls and other features need enhancements for ecology as sea levels rise and development pressures increase.
- Benzo(g-h-i)perylene: new evidence shows presence of this restricted chemical.
- Mercury: new evidence shows presence of this restricted chemical.
- Polybrominated diphenyl ethers (PBDE): new evidence shows presence of this restricted chemical.

### **HAVANT, LAVANT and LANGSTONE HARBOUR WATER BODIES**

#### **HERMITAGE STREAM GB107042016370 - River**

Overall Status is **Moderate**

Main focus:

- Invertebrates: lack of natural river habitat in modified channel, pollution from misconnections, sewage.
- Fish: barriers, lack of natural river habitat in modified channel.
- pH: has deteriorated. Modified channel, pollution from misconnections, sewage.

- Phosphate: pollution from misconnections and sewage.
- Temperature: is Good but deteriorating.
- Mitigation measures needed for modifications: engineered channel for flood protection needs enhancements for ecology.
- Mercury: new evidence shows presence of this restricted chemical.
- Polybrominated diphenyl ethers (PBDE): new evidence shows presence of this restricted chemical.

#### **LAVANT STREAM (Hants) GB107042016420 - River**

Overall status is **Poor**

Main focus:

- Fish: barriers to fish passage and stretches where habitat could be improved.
- Mercury: new evidence shows presence of this restricted chemical.
- Polybrominated diphenyl ethers (PBDE): new evidence shows presence of this restricted chemical.

#### **LANGSTONE HARBOUR GB580705130000 - transitional-coastal**

Overall status is **Moderate**

Main focus:

- Angiosperms (saltmarsh only, not seagrass): under pressure from coastal development.
- Mitigation measures needed for modifications: sea walls and other features need enhancements for ecology as sea levels rise and development pressures increase.
- Mercury: new evidence shows presence of this restricted chemical.
- Polybrominated diphenyl ethers (PBDE): new evidence shows presence of this restricted chemical.

#### **LANGSTONE OYSTER BEDS GB510070073000**

Overall status is **Moderate**

Main focus:

- Mercury: new evidence shows presence of this restricted chemical.
- Polybrominated diphenyl ethers (PBDE): new evidence shows presence of this restricted chemical.

### **GROUNDWATER**

#### **EAST HANTS CHALK GB40701G502700**

Overall status is **Poor**

Main focus:

- Chemical status: Poor due to rising nitrate.
- Quantitative status: Poor because of impact of abstraction on dependant surface waters.

**EAST HANTS LAMBETH GROUP GB40702G500800**

Overall status is **Good**

**SOUTH HANTS LAMBETH GROUP GB40702G503700**

Overall status is **Good**

**SOUTH EAST HANTS BRACKLESHAM GB40702G503000**

Overall status is **Poor**

Quantitative status: Good.

- Chemical status: Poor because of impact on dependant surface water, i.e. the River Alver.

For more information, go to Catchment Data Explorer

<https://environment.data.gov.uk/catchment-planning/ManagementCatchment/3034>



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