

A BIOREGION FOR THE SOLENT CATCHMENT?

By

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Source: ¹

This paper sets out the case for recognition of the Solent catchment as a complete bio-region, united by its economic interrelationships, history, geography, geology and common environmental challenges. It has an extremely dynamic economy, a coherent environment and enormous attractiveness for recreation. By bringing the area together we can realise its huge potential in all these areas in the way that other designated bio-regions around the world have done, such as the Vancouver area. The United Nations describe the Biosphere designation in the following general terms. "Biosphere reserves promote solutions reconciling the conservation of biodiversity with its sustainable use. They are learning areas for sustainable development under diverse ecological, social and economic contexts, touching the lives of more than 250 million people. There are currently 714 biosphere reserves in 129 countries, including 21 transboundary sites, that belong to the [World Network of Biosphere Reserves](https://en.unesco.org/biosphere)."²

¹ https://en.wikipedia.org/wiki/The_Solent

² <https://en.unesco.org/biosphere>

On 28 September 2020, Prime Minister the Rt Hon Boris Johnson MP announced a commitment to protect 30% of the UK's land by 2030.³ Existing National Parks, Areas of Outstanding Natural Beauty and other protected areas already comprise approximately 26% of land in England. An additional 4% – over 400,000 hectares, the size of the Lake District and South Downs national parks combined – will be protected to support the recovery of nature. The statement said “The government will work with the Devolved Administrations to agree an approach across the UK, and with landowners and civil society to explore how best to increase the size and value of our protected land.” Already the UK government has led, since 2019, the Global Ocean Alliance promoting a target to protect 30% of the ocean by 2030. This alliance now has 30 countries signed up, with others interested.⁴ In addition we are still waiting the outcome of Julian Glover's National Park review.

This paper argues that a more nuanced approach to protect biodiversity is required in the 21st century to augment the National Park and AONB model which provides ‘gated’ environmental oases. In the Solent sub-region, the connections between upland areas, coastal wetlands, intertidal areas and marine environments are of immense value for biodiversity. Birds, mammals, insects, reptiles and fish all transition between them via the networks in the hydrosphere. Currently attempts are being made to recognise the importance of safeguarding these as wildlife corridors and stepping stones in the face of significant development pressures. The continued health of ecosystems rely on such connections, not least for genetic diversity.⁵

The Isle of Wight achieved the status of a UN Biosphere in June 2019⁶. The possibility exists for it to be extended, but first there needs to a partnership built across the sub-region to share knowledge, ambitions and partnerships on a new level. The recognition of this sub-region as a bio-region, already sharing these things is a next step. The Solent bio-region area is approximately 40 miles by 40 miles potentially making for 1,600sq miles or 4,000sq kms. The need for crossing administrative boundaries in these activities is paramount and, in the Solent, we already have, as we shall see, a great number of such active partnerships. Mention will be made of Cascadia in North America which actually crosses not just local administrative districts, but also straddles two nation states’ shared boundary. It has been included because there are some striking similarities, albeit on a different geographical scale to that of the Solent area.

The ancient Solent River system established during the early to mid-Quaternary period gives us today a natural sub-region within Southern England. The geology defines the topography having shaped the drainage. Sea level changes have done and continue to mould the rest. The Solent basement is a flooded syncline complimenting the South Downs/Weald area to its north which is a denuded anticline.⁷

³ <https://www.leaderspledgefornature.org/>

⁴ <https://www.gov.uk/government/news/pm-commits-to-protect-30-of-uk-land-in-boost-for-biodiversity>

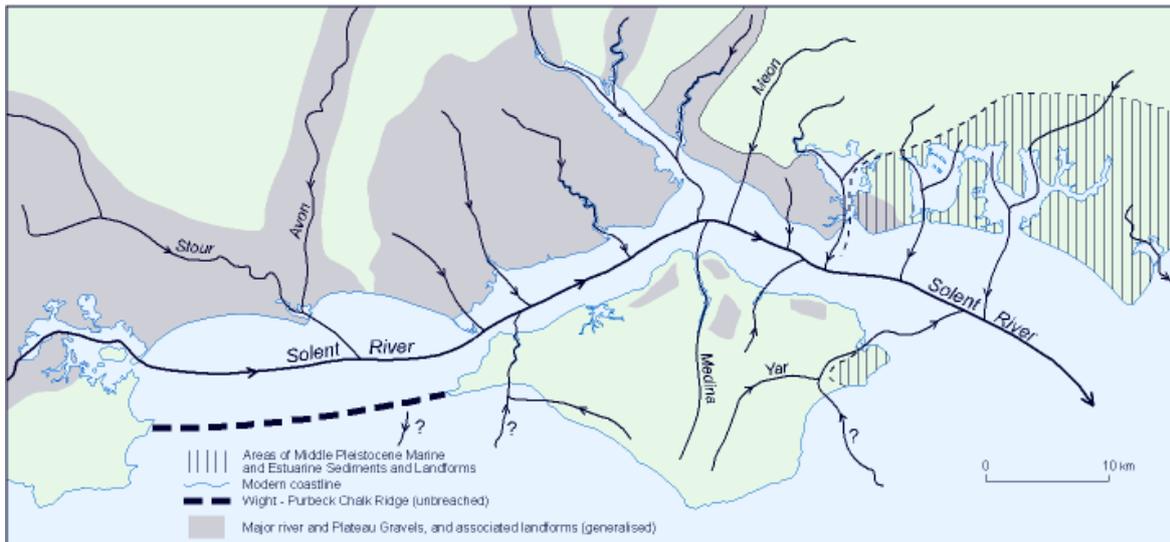
⁵ Such an example is the chalk streams designated as BAPs, see <https://jncc.gov.uk/our-work/uk-bap-priority-habitats/>

⁶ <https://en.unesco.org/biosphere/eu-na/isle-of-wight?fbclid=IwAR1I38ud8UGHFWmaeXGXN6tvoIQIU7BhIk7WWE24evD6uxliBmxVvy3F3HY>

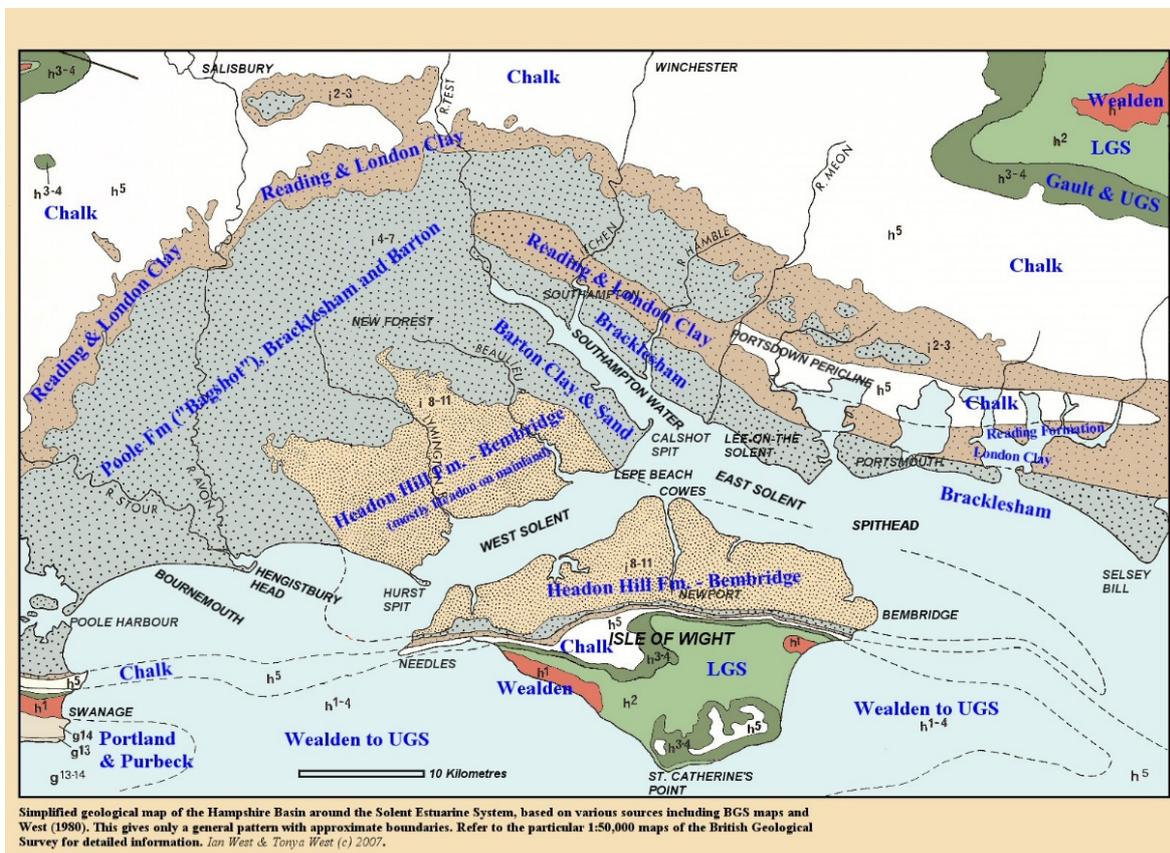
⁷ <https://courses.lumenlearning.com/geophysical/chapter/geologic-structures/>

Figure 1: The Solent River, Early-to Mid-Quaternary

The contemporary coastline would have been some 20-30 kilometres southwards.
Sea-level rise during early interglacial periods would have created estuarine conditions in the eastern and central Solent.



Source for first two maps: ⁸



⁸ <https://www.google.com/search?q=map+of+the+solent+coast&client=firefox-b-d&sxsrf=ALeKk023LxrudzbaTBQbRB6UXGKPM0tcQ:1603726300679&tbm=isch&source=iu&ictx=1&fir=Kgm6EgyEVzfKqM%252CHFXz9vPC6WX0BM%252C &vet=1&usg=AI4 -kQeZHO9rd8tTMUBfSurB-udhlyeSA&sa=X&ved=2ahUKewil39-DytLsAhXZiVwKHaLaBAAQ9QF6BAGoEEs&biw=1360&bih=626#imgrc=qBy93wGW0vEvpM>

The geology that transects the bio-region is thus strikingly symmetrical with belts of greensand, chalk, clays and sand. Chalk streams have etched their way down through the chalk, shaped the basins and in due course been inundated by relative sea level rises to create our inlets, harbours and what passes for estuaries. The catchment is a considerable part of the hydrological cycle of the British Isles.⁹ The basin has been filled with successful human activity and continues to experience considerable economic growth as regional transformations occur. As well as being an economic power house, it is also an attractive location for leisure and recreation. But what makes the sub-region so attractive also threatens to jeopardise that very attractiveness.

Public policy can however find a route through the economy-environment dichotomy. Much has been written about 'smart-growth'¹⁰ and the related idea of 'ecological modernisation'¹¹. Our bioregion has unquestionable environmental assets and a history of pioneering technological innovations associated with maritime applications, aviation, defence industries, automotive and marine engineering. Three universities (Southampton, Portsmouth and Chichester) offer specialist research in oceanography, coastal geomorphology, naval architecture and related fields. This has led to environmental damage being addressed locally and several examples¹² are actively being pursued. We have documented elsewhere the threats posed to our hydrosphere within the Solent area.¹³ The current paper presents a case of a cross-boundary holistic approach to addressing the twin challenges of economic growth and environmental degradation through a bio-regional approach.



Photo: View from Kingley Vale southward across Chichester Harbour and the Manhood Peninsula toward Selsey Bill at the eastern edge of the Solent. Dick Pratt April 2010.

⁹ https://www.ramsar.org/sites/default/files/documents/pdf/res/key_res_viii_14_e.pdf

¹⁰ [http://www.smartgrowthuk.org/;](http://www.smartgrowthuk.org/)

<https://smartgrowthamerica.org/our-vision/what-is-smart-growth/>

¹¹ <https://medium.com/@alyadjunas19/what-is-ecological-modernization-79d313dc1b96>

¹² e.g. <https://solentprotection.org/category/conservation/>

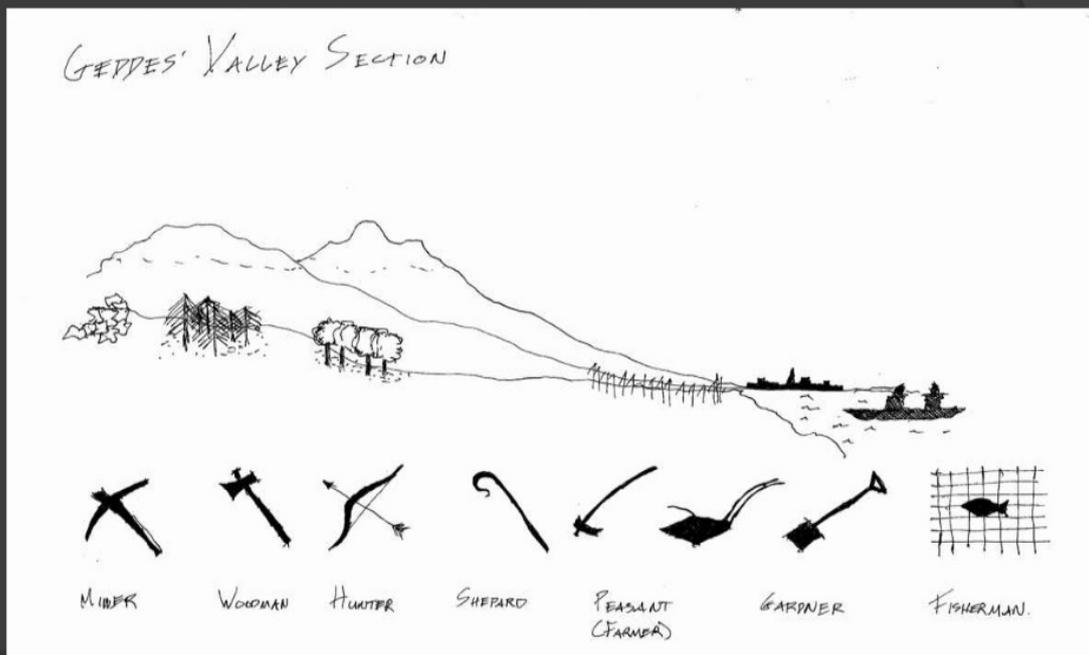
¹³ [https://5d0e6579-f20c-40a0-acbf-](https://5d0e6579-f20c-40a0-acbf-8c4ac274613b.filesusr.com/ugd/dae4df_ee365c1cf8b54ebd9e73722a16020f4c.pdf)

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Why do we think a bio-regional approach may help?

There are few examples in the world, but a wealth of theory, beginning back with one of the fathers of British Town Planning, Patrick Geddes.¹⁴ Modern writers interpret the essence of this approach as ‘city-islands within a sea of biodiversity’¹⁵ rather than what has emerged as the current urban planning assumption of islands of biodiversity in a sea of suburbia. For Geddes it began with a simple representation of his city in its setting. Bioregionalism confronts the apparent contradiction between habitat degradation/fragmentation on the one side and economic growth/prosperity on the other, head on and seeks to resolve this conflict.

- ◉ Geddes illustrated the section using the locally available landscapes of Edinburgh and its hinterland



Source ¹⁶

¹⁴ <https://journals.openedition.org/sapiens/1691>; <https://halshs.archives-ouvertes.fr/halshs-00533625/document>

¹⁵ Sarah P. Church, (2014) Exploring Urban Bioregionalism: a synthesis of literature on urban nature and sustainable patterns of urban living <https://journals.openedition.org/sapiens/1691>

¹⁶ <https://www.slideshare.net/macshivalkar/patrick-geddes-theory>

Note: the term “bioregionalism” was coined by Allen Van Newkirk, who presented it as a technical process of identification of “culturally and biogeographically interpreted zones... called regions” (Van Newkirk, 1975). Van Newkirk founded the Institute for Bioregional Research, but he soon ceased to have any influence over the movement.

A summary of more recent applications of the concept of bioregionalism has been set out: Silvana Maria Cappuccio. Bioregionalism as a new development paradigm.¹⁷ Enthusiasts see ways of linking small local actions to a much larger regional impact.¹⁸

The most ambitious and relevant example of the application of bioregionalism straddles the US/Canada border in the North West. Let us thus therefore turn for a moment to the question of Cascadia. Its champions describe their bio-region as follows.¹⁹

“Stretching along more than 2500 miles of Pacific coastline, Cascadia is known for its connection with Salmon, and its borders stretch for as long and as far as the Salmon swim — from the glacial cold Copper River Watershed in South East Alaska to Cape Mendocino in the South and the Yellowstone Caldera in the East. In its interior, Cascadia contains the largest tracts of untouched old growth temperate rainforests in the world, including 7 of the top 10 world’s carbon absorbing forests, the world’s tallest trees, thousands of volcanoes, hot springs, rivers, lakes, inlets, desert gorges, waterfalls, island and ocean, including some of the last diminishing, though still impressive wild habitats of salmon, wolves, bear, whale, orca. In all — more than 350 bird and mammal species, 48 reptiles, hundreds of fungi, lichen, and thousands of invertebrates and soil organisms call Cascadia home.

“Together, Cascadia has a population akin to many other countries around the globe, the world’s 9th largest economy, and is roughly the size of Mongolia. Culturally, Cascadia is one of the most literate and educated regions in the world — with one of the highest living standards, GDP per capita, accesses to advances and research in healthcare. Cascadia also generates and exports a large portion of its own energy from renewable resources, and more than 80% of the population live in the Cascadia megaregion, a term created to help define where “boundaries that begin to blur, creating a new scale of geography” between Vancouver BC and Eugene, Oregon, representative of only 17% of the overall landmass.

“Arbitrary boundaries based on fragmented communities and watersheds will never be able to fully represent the place or people. If we ever want to talk about food sovereignty, that conversation can never only include western Washington or Oregon, but must necessarily include both sides of the mountains. One of the largest examples of this is Seattle and Vancouver, the two largest cities in the Cascadia bioregion and only 180 miles apart from one another, and that share the same watershed, but are divided by an international boundary. If Vancouver is polluting into their waterway, or Seattle is, it affects both equally. Each year when there are forest fires and smoke blackening the air, or if there is a drought in Eastern Cascadia affecting our crops, or our rivers are swelling and overflowing in the wintertime, or if there is an earthquake — it affects all of us, and we need to be able to effectively communicate and work together to solve those problems.

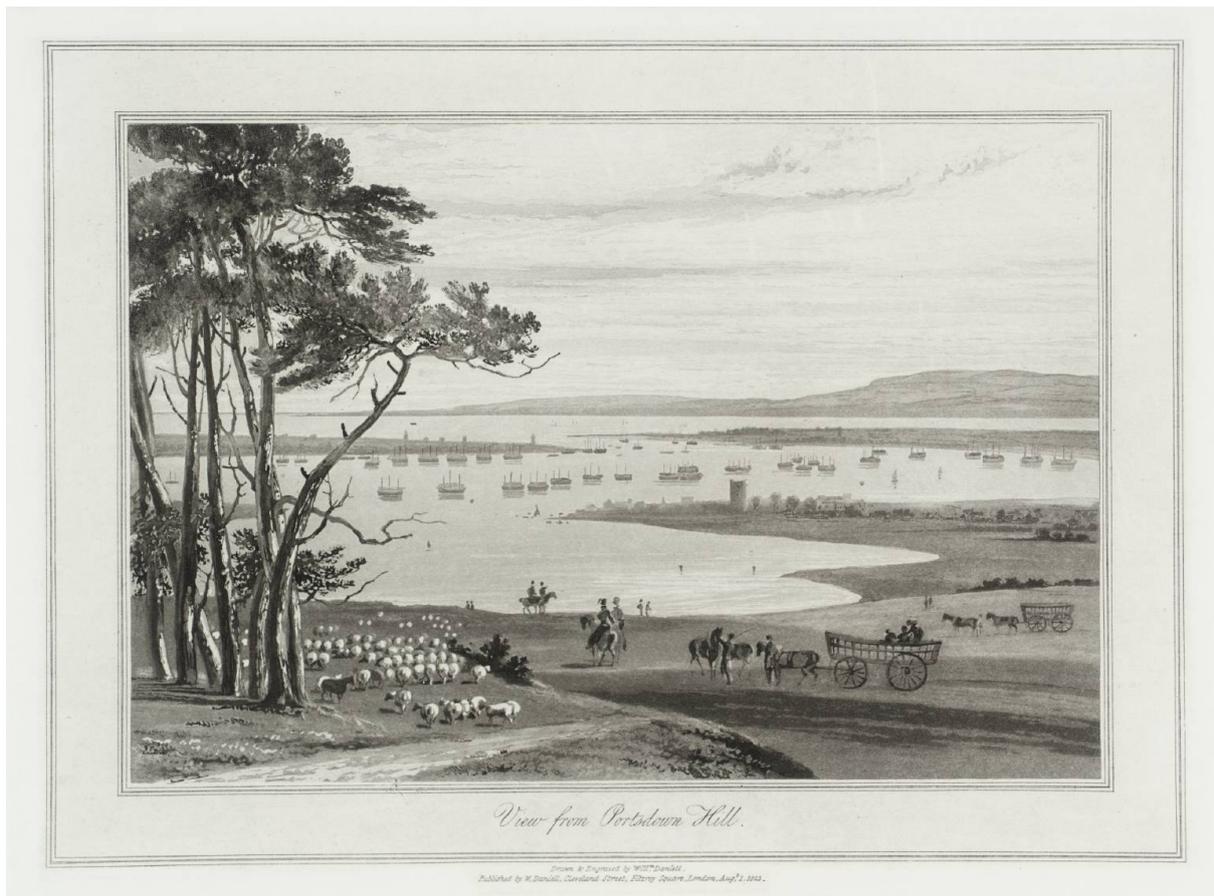
“Rather than each of these as an individual issue — Cascadia provides a place based, holistic movement to build the inter-dependence, sustainability and resiliency for the Cascadia bioregion. We start from our watersheds, and use the idea of Cascadia as a framework, guided by key principles, to break global issues down to a local level, increase the accountability and transparency of our regional economic and food systems, and move our actions and impacts to where individuals have the greatest say in the issues that affect their lives.”

¹⁷ International Conference of Territorial Intelligence, Nov 2009, Salerno, Italy. 9p. [halshs-00533625](https://halshs.archives-ouvertes.fr/halshs-00533625/document)
<https://halshs.archives-ouvertes.fr/halshs-00533625/document>

¹⁸ <https://medium.com/age-of-awareness/bioregionalism-4e15f314327>

¹⁹ <https://deptofbioregion.org/cascadia-our-framework-for-change>

Yes, Cascadia is a huge area and the Solent much smaller, but the principles and the challenges are similar. In the case of the Solent sub-region, we also have not a single dominant city, but a string of cities (Southampton, Portsmouth, Chichester) and a string of coastal villages along the coastal plain (from Keyhaven to Selsey, sandwiched between the chalk escarpments and the sea. By road, the distance is about 70 miles from Keyhaven to Selsey Bill, but as the white-tailed eagle may fly, only 40 miles. This would capture the hydrosphere of central south coast of England. In terms of the historic trends of urban growth, we have seen the evolution of polycentrism with a strong tendency toward agglomeration, a trend toward conurbation and the squeezing of open countryside by urban sprawl. Regional or sub-regional planning has attempted to address these types of challenges elsewhere in Britain and Europe, but this has hitherto proved less available in the context of the Solent sub-region and certainly not recently.



William Daniell (1769–1837) View from Portsdown Hill (over Portchester castle, Portsmouth Harbour, The Solent and the Isle of Wight).²⁰

There can be little doubt that the prosperity of the sub-region has derived from the unique combination of physical geography – the fertile coastal plain hosted the great boom in Georgian farming, the market towns, the naval, mercantile and fishing ports and has been further boosted by its modern recreational and leisure attractions. The Solent is the busiest stretch of leisure boating inshore water in the UK as well as hosting docks and ports of international and regional importance. Through the Eastern Solent from the Nab Tower in the east to Southampton Docks is an internationally significant navigation channel that sees significant daily shipping transits.

²⁰ <https://www.tate.org.uk/art/artworks/daniell-view-from-portsdown-hill-t02967>

The Western Solent is largely the demesne of recreational yachting. Ferries link the Isle of Wight to the mainland via several routes (Lymington/Yarmouth, Southampton/Cowes, Portsmouth/Ryde/Wootton Creek). Merchant shipping at Southampton, naval technology at Portsmouth, defence industries 'spin-offs', and other information technology industries has continued to fuel growth despite the absence of any notable science park clusters. Undoubtedly the linkages to the Thames valley and London's financial pre-eminence has made the sub-region an economically strong area.

Despite these comparative advantages, there are notable expressions of poverty and deprivation in some urban centres. A number of bodies locally monitor population, health, community safety, economy and public services. Southampton city has its own data observatory doing this.²¹

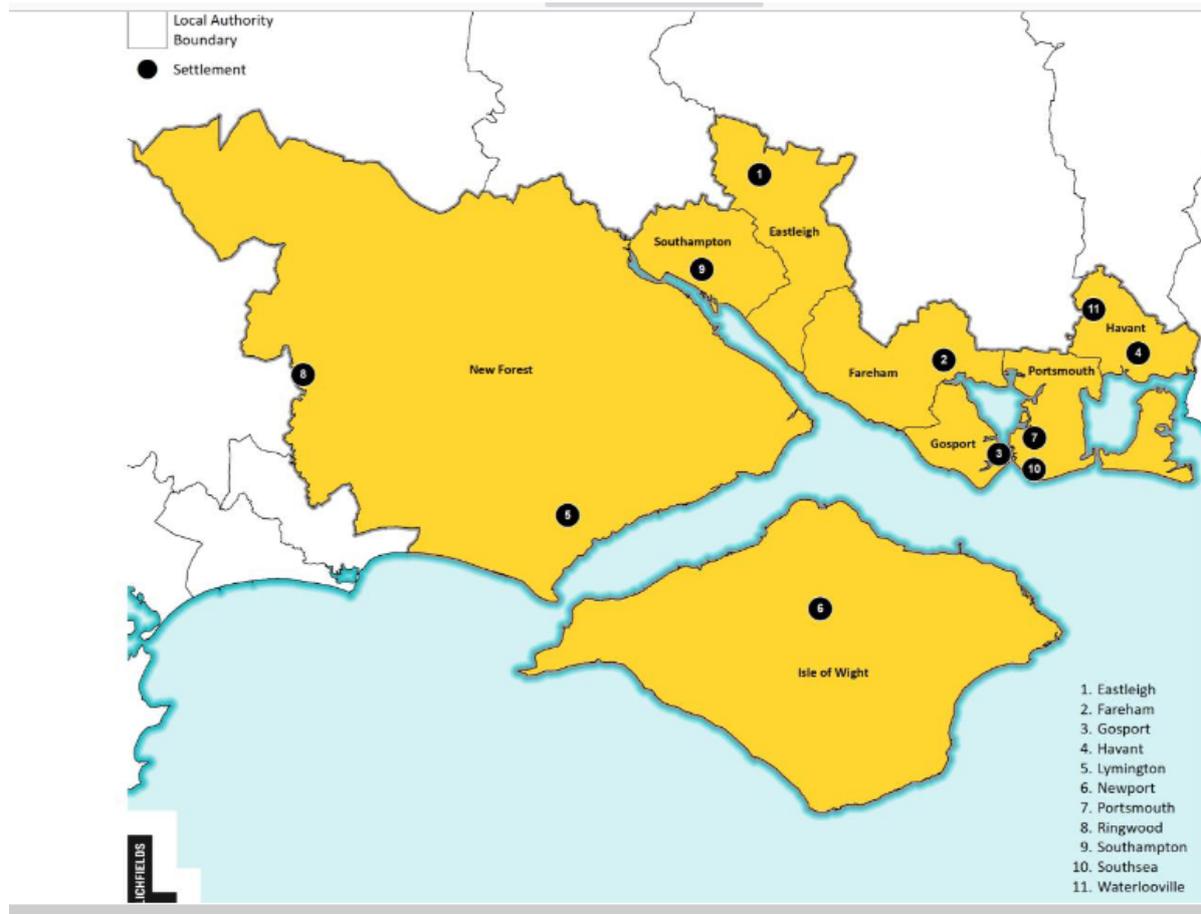
Nonetheless the proximity of varied accessible landscapes and shorelines of notable quality and interest continues to feature in any estimation of the attractiveness of the area. The environment between the main settlements undoubtedly contributes significantly to the sustainability of the local visitor economy and its ability to attract highly qualified employees and entrepreneurs away from London.



View north from National Trust East Head to Stoke Clump, a significant navigation landmark. Photo credit: Dick Pratt 19 February 2012.

²¹ <https://data.southampton.gov.uk/economy/economic-assessment/>

Local economic partnerships in Hampshire and West Sussex embrace such activities within the prospective bio-region and would be essential partners in any policy community for the area.²²



The area covered by the Solent Local Enterprise Partnership is shown on the map above.

Whilst, not as dramatic in topographical and landscape terms as the north-west of America, it shares some general features in common. This polycentric urbanism nestles within a succession of ecosystems and crosses administrative boundaries necessitating cooperation to mitigate environmental impacts of economic success. At present we may characterise these settlements nestling in a sea of biodiversity but we may soon face the prospect of this relationship becoming reversed with a legacy of mere islands of fragmented nature in a sea of urbanism. Bio-regionalism can give us the tools to prioritise the linkages between ecosystems, thus safeguarding genetic diversity of species of the biosphere and maintaining the connectivity of culture and natural habitat. In this way we may seek to protect and enhance the natural capital assets for the benefit of society.

The Solent has protective arms reaching around it already. To the north is the South Downs National Park, dedicated to partnership working for the benefit of nature.²³

To the north west the New Forest National Park hosts distinctive heathland and forest habitats.²⁴

²² <https://solentlep.org.uk/media/2691/16346-solent-economic-profile-report-final-july-2019.pdf> and <https://www.coast2capital.org.uk/>

²³ https://www.southdowns.gov.uk/wp-content/uploads/2020/04/SD_PMP_2019_F_22-FINAL.pdf

²⁴ <https://www.newforestnpa.gov.uk/discover/healthy-environment/>

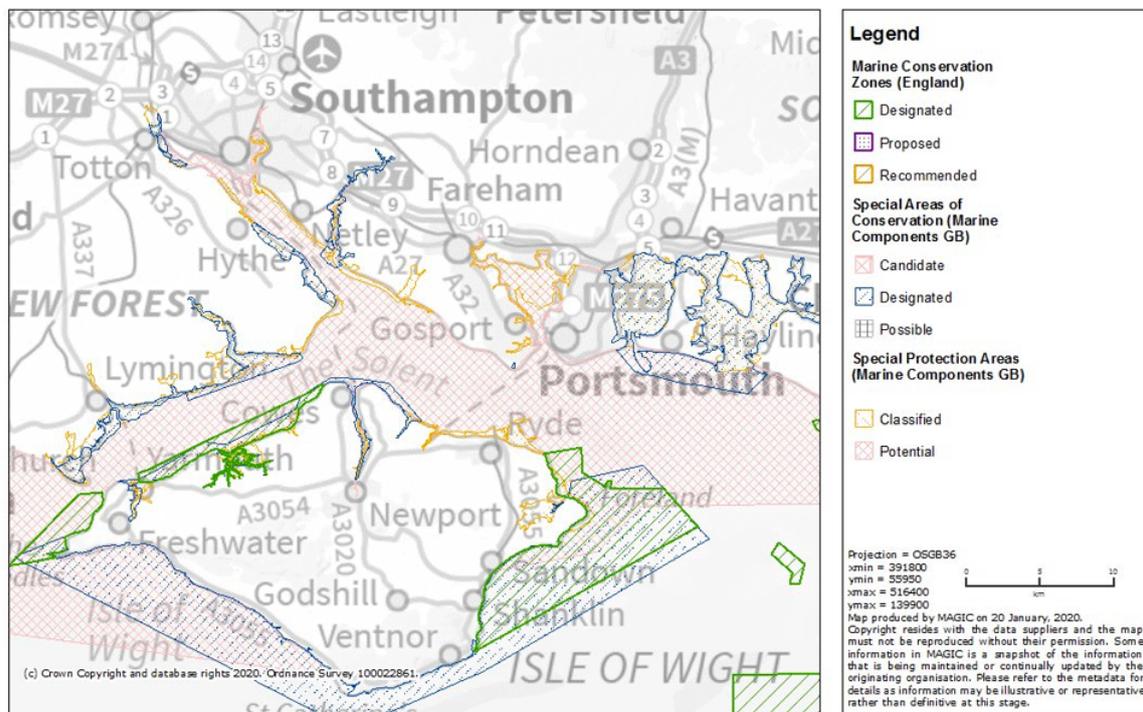
Through the Solent are Marine Conservation Zones (MCZ) at the Needles (11km), Yarmouth to Cowes and Bembridge, with others being proposed with extensions of the Special Protection Areas (SPA).²⁵ More recently the kelp beds off East Selsey have been afforded protective designation which it is hoped will help them regenerate .

Each statutory planning body whose geographical area is boundary-defined have duties beyond them reflecting that environmental impacts reach beyond them. Such an example is the New Forest National Park. Here the planning policy states “All new residential development and visitor accommodation within 5.6 kilometres of the Solent SPA, SAC and Ramsar sites will also require mitigation for recreational impacts on these coastal designated sites.”²⁶

Chichester District is another such example where we find policies 50 and 51 of the Local Plan Key policies 2014-2029 reinforcing the Conservation of Habitats and Species Regulations 2017 to require mitigation for any residential developments taking place within the 5.6km ‘zone of influence’ of

MAGiC

Solent Marine Protected Areas



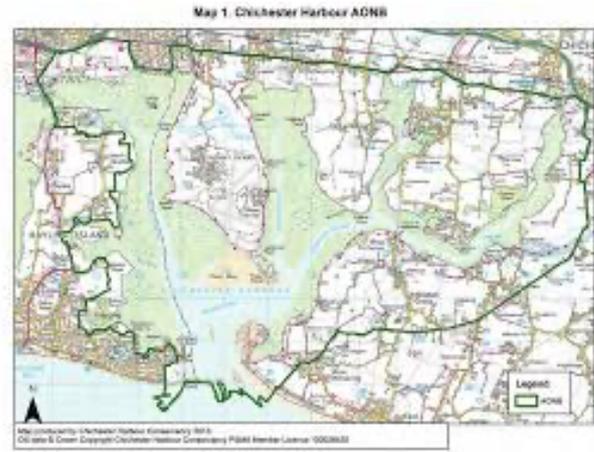
Chichester, Langstone Harbours and Pagham SPAs.²⁷

In the south are the AONBs of the Isle of Wight and Chichester Harbour (see maps overleaf).

²⁵ <http://www.solentems.org.uk/about/MCZ/>

²⁶ <https://www.newforestnpa.gov.uk/planning/development-impacts-on-protected-areas/>

²⁷ https://www.chichester.gov.uk/media/24759/Chichester-Local-Plan---Key-Policies-2014---2029/pdf/printed_version.pdf



There are other examples of the attempt to reach across administrative boundaries to achieve a more holistic means of protecting and enhancing the natural environment.

In addition, since 2019 the IoW enjoys the status of a biosphere, one of seven in the UK and over 200 in European countries.²⁸

The UNESCO Man and the Biosphere Programme is

“an intergovernmental scientific programme that aims to establish a scientific basis for enhancing the relationship between people and their environments. It combines the natural and social sciences with a view to improving human livelihoods and safeguarding natural and managed ecosystems, thus promoting innovative approaches to economic development that are socially and culturally appropriate and environmentally sustainable.”²⁹

Locally,

“The Isle of Wight Biosphere Reserve is home to 140,000 inhabitants, making it the second most populous island in northern Europe. The Isle of Wight has a strong tradition of environmental action with numerous projects and initiatives promoting environmental education and awareness, increased community engagement, and healthier lifestyles and diets. The island is also developing eco-tourism and working with universities and institutions to foster environmental innovation and attract new investment, and testing new measures for climate change mitigation and adaptation.”³⁰

But the Solent bio-region sandwiched between the two national parks on its northern arc and the specific restraints exercised through the fragmented AONBs on the mainland and the Island remains without a joined-up concept for enhancing the relationship between people and their environments. Instead we have a myriad of authorities, partnerships, working arrangements, cross-funding agreements, and aspirations.

²⁸ <https://en.unesco.org/biosphere/eu-na/isle-of-wight?fbclid=IwAR1I38ud8UGHFWmaeXGXN6tvoJQU7BhIk7WWE24evD6uxliBmxVvy3F3HY> And <https://en.unesco.org/biosphere/eu-na>

²⁹ <https://en.unesco.org/mab>

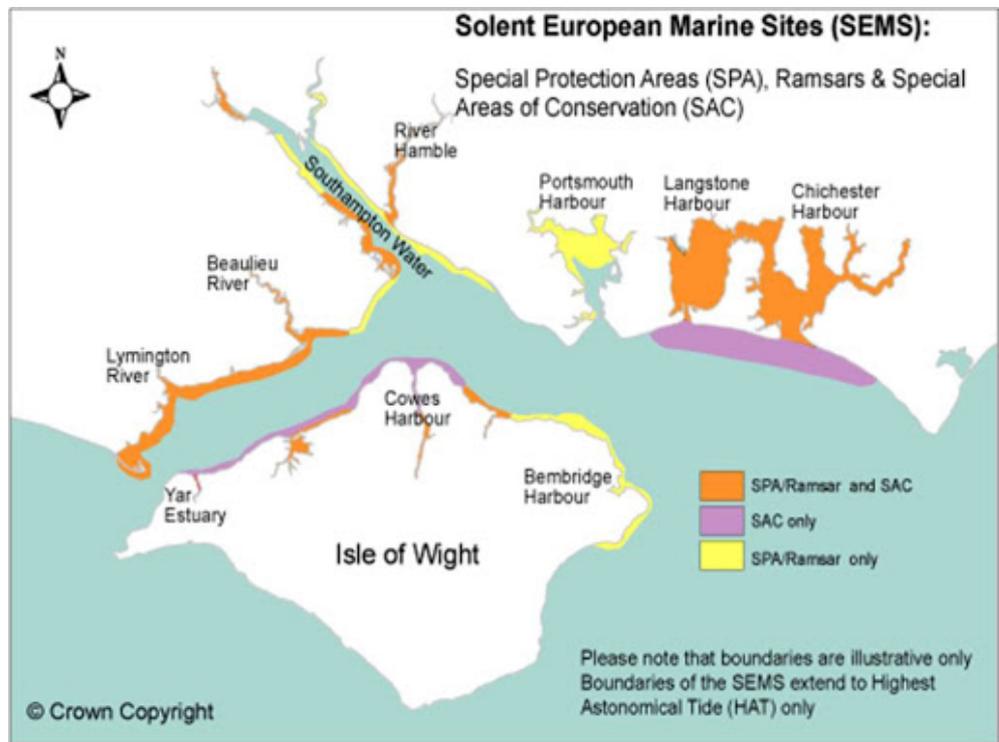
³⁰ <https://en.unesco.org/biosphere/eu-na/isle-of-wight?fbclid=IwAR1I38ud8UGHFWmaeXGXN6tvoJQU7BhIk7WWE24evD6uxliBmxVvy3F3HY>

Who currently regulates what happens in the Environment of the Solent Catchment?

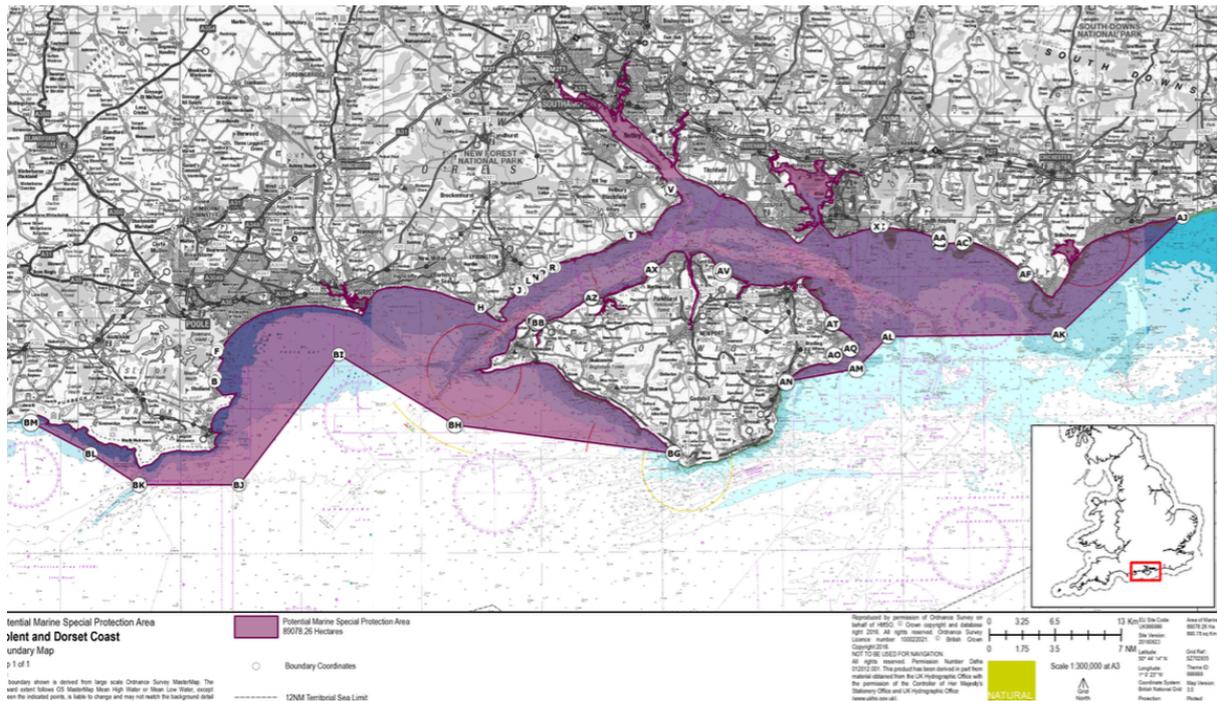
Managing the human impact upon the Solent Region's natural environment has seen the creation of a large number of regulatory and partnership bodies. Stirring in the 1960s, the impulse for cross-border cooperation in the interests of environmental protection has grown over time. Beginning perhaps with the Chichester Harbour Conservancy Act in 1971, we have seen a rising wave of ambition to coordinate human development paths with the conservation and enhancement of nature across administrative boundaries. The formation of the Solent Forum in 1992 and most recently the UNESCO designation of the IoW Biosphere in 2019 are landmarks along the way. What is now required is an overall concept to meet the challenges at the sub-regional level. A bio-region for the Solent may provide such a conceptual framework.

Some of the maps of such bodies express the challenge. Here are two such examples: firstly, the Solent Bird Aware project supported by a number of local government bodies and secondly the Internationally recognised environmental protective designations.

Special Protection Areas (SPA) in the Bird Aware Solent region



Since 16 January 2020 a wider Solent and Dorset Coast SPA was designated and Natural England Conservation Advice for Marine Protected Areas for Solent and Dorset Coast SPA is awaited. The extended area is shown on the map below.



Bodies currently charged with regulation of the Environment of the Solent Catchment

We have listed some of the most important below.

- County Councils, Districts, cross-border partnerships, SDNP, AONB and their management plans
- In governance terms, the area is characterised by both unitary authorities (operating under a single tier local government system, such as Portsmouth, Southampton and the Isle of Wight) and a two-tier system of six district councils operating alongside Hampshire and West Sussex County Councils.
- The six district councils are Chichester, Eastleigh, Fareham, Gosport, Havant, and New Forest.
- Only part of West Sussex and Hampshire County Council fall within the prospective 'Bio-Region'
- But it should include the whole of the New Forest National Park Authority area and part of the South Downs National Park that embraces the dip slopes of the chalk downs.
- In addition, the AONBs on the Isle of Wight and within Chichester Harbour each have separate management.³¹
- Solent & Southern Harbour Masters Association
- Examples of cross-border partnerships include
 - Solent Bird Aware
 - universities,
 - Solent Forum, (est. 1992)³²
 - Solent Economic Partnership
 - A number of partnership plans have evolved in recent years, namely
 - Hampshire Minerals and Waste Local Plan, Hampshire County Council
 - North Solent Shoreline Management Plan, Eastern Solent Coastal Partnership

³¹ for example [https://www.conservancy.co.uk/assets/files/cms_item/613/d-Management Plan \(2019-24\) Third Review r-bKLIo0MjzO.pdf](https://www.conservancy.co.uk/assets/files/cms_item/613/d-Management_Plan_(2019-24)_Third_Review_r-bKLIo0MjzO.pdf)

³² http://www.solentforum.org/solent/our_coastal_zone/

- Serving Hampshire, Hampshire County Council
- Solent Diffuse Water Pollution Plan, Natural England/Environment Agency
- Solent Recreation Mitigation Strategy, Bird Aware Solent
- Solent Waders and Brent Goose Strategy, Hampshire & Isle of Wight Wildlife Trust
- Southeast River Basin Management Plan, Environment Agency (last Updated: December 2015): see map below.³³



- National parks of the New Forest and the South Downs
- South Inshore Plan, Marine Management Organisation
- West Sussex Local Flood Risk Management Strategy, West Sussex County Council
- West Sussex Minerals and Waste Local Plan, West Sussex County Council
- West Sussex Plan, West Sussex County Council

Continuing threats to the environment of the Solent Bio-Region

Essentially, the major threat to our eco-systems is overdevelopment and climate change/sea level rise. The tendency for new housing development to be concentrated in the coastal plain has in recent years been amplified and concentrated. With a patchwork of various designations documented above, we find such developments being concentrated in a narrower band between them. However, this approach threatens to produce further habitat fragmentation leaving remnant ecosystems marooned on islands, shielded by statutory restraints. We have documented elsewhere³⁴ the impact that this is having on our hydrosphere. Some issues are being recognised, for example a campaign to add additional protection to the River Ems on the Hants/West Sussex boundary is supported by the current MP.³⁵ However, as we have demonstrated elsewhere,³⁶ the problems afflict most if not all of the chalk streams that traverse the coastal plain from the foot of the Downs to the Solent. With respect to our Ramsar sites, obligations were clearly set out at **Wetlands: water, life, and culture**" at the 8th Meeting of the Conference of the Contracting Parties to the Convention on Wetlands (Ramsar, Iran, 1971) Valencia, Spain, 18-26 November 2002.³⁷ This requires that upstream activities be evaluated for downstream impacts.

³³

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/718337/South_East_RBD_Part_1_river_basin_management_plan.pdf

³⁴ [https://5d0e6579-f20c-40a0-acbf-](https://5d0e6579-f20c-40a0-acbf-8c4ac274613b.filesusr.com/ugd/dae4df_ee365c1cf8b54ebd9e73722a16020f4c.pdf)

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³⁵ <https://gilliankeegan.com/campaigns/protecting-river-ems>

³⁶ [https://5d0e6579-f20c-40a0-acbf-](https://5d0e6579-f20c-40a0-acbf-8c4ac274613b.filesusr.com/ugd/dae4df_ee365c1cf8b54ebd9e73722a16020f4c.pdf)

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³⁷ https://www.ramsar.org/sites/default/files/documents/pdf/res/key_res_viii_14_e.pdf



Left: The Bosham Channel is fed by four streams and yet other leats, including an ancient millstream, none of which are currently afforded any special protection. Photo credit: aerial Bosham channel oct 04 M Simmons for CHC

Below: Two examples of local action to restore the water flow and bankside conditions of the Bosham Millstream upon which local

populations of brown trout and water vole depend.

1. The salt/fresh water interface: an example of planned replacement of millstream sluice gate at Bosham Millstream. Photo credit: Dick Pratt November 2015

2. Revetments restoration for the benefit of community and wildlife, particularly water vole.

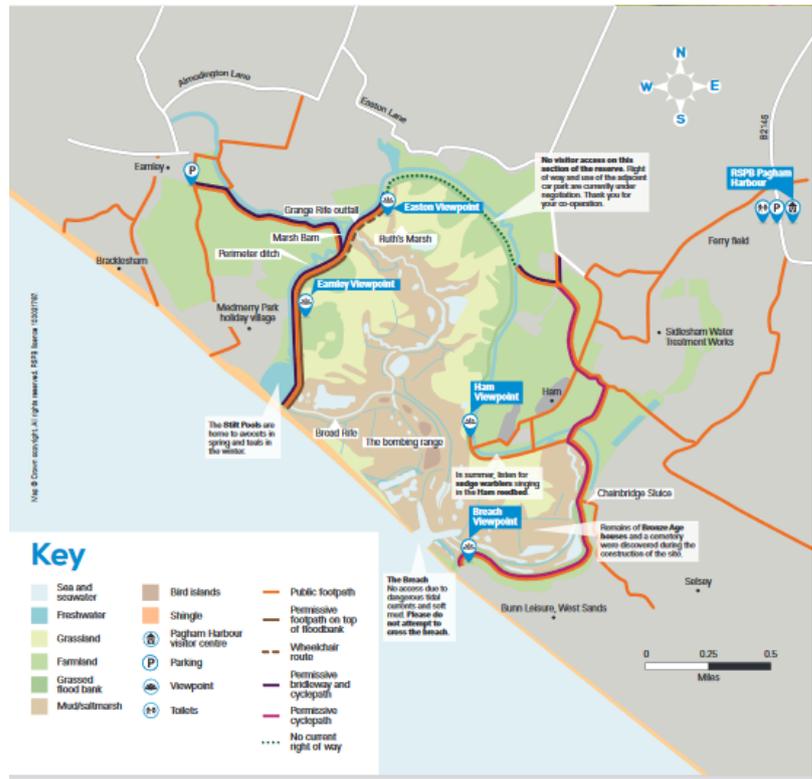


We have also set out the expected impacts on the environmental management of the area by climate change, paramount is sea-level increase and consequent coastal squeeze.³⁸ There needs to be a long-term strategy for managing the impacts of economic growth and prosperity on the one side and squeezed environments on the other. The bio-regional approach offers great insight into how this all would be managed.

Within the sub-region we have numerous examples of economic development being harnessed to enhancing natural capital. One obvious example was Medmerry, Europe's largest coastal

³⁸ https://5d0e6579-f20c-40a0-acbf-8c4ac274613b.filesusr.com/ugd/dae4df_bc46d604a4ae4965a574ea0054fd1582.pdf

realignment scheme when it opened in 2013. By moving protective banks inland, the Medmerry scheme provided a much more sustainable and long-term coastal defence for communities on the Manhood Peninsula as well as creating 183 hectares of transitional wetlands including saltmarsh habitat and mudflats. The new nature research, now managed by the RSPB, has also boosted the peninsula's growing green tourism economy. But the creation of Medmerry was also an economic win for Southampton, as it provided compensatory habitat for the saltmarsh being lost to the expansion of Southampton Docks.



As a result of joined up strategy between the west and east of the Solent Region, Southampton's vital container ship economy was strengthened while the Manhood peninsula's coastline was made more robust and its environment, economy and social well-being enhanced. Meanwhile, this win/win situation was largely funded by Associated British Ports, so not a burden on the taxpayer.

Map from RSPB Medmerry

The proposed Environment Bill gives further opportunities for these endeavours. In particular:

- The Environment Bill will mean local areas will need a Local Nature Recovery Strategy to bring a broad range of groups together to deliver priorities for nature recovery at a local and national level, driving the delivery of a National Nature Recovery Network.
- New 'biodiversity net gain' measures will mean that new developments, including new housing, will help wildlife to thrive by improving habitats and creating new green spaces close to where people live.
- The government has also proposed two amendments to the Bill to introduce new measures that will support the design and delivery of strategic approaches for the protection of both species and habitats.

Summary Questions and Conclusion

- How economically important is the sub-region?

Notwithstanding the set-backs of 2020 associated with Brexit and Coronavirus-19, and further uncertainties continuing through the immediate future, this sub-region of Southern England has major economic strength, a diverse economic base in agriculture, fishing, manufacturing, science, technology, financial services, education and research. It covers all the bases.

- How environmentally important is this sub-region?

We have attempted to show that the economic success of the area is based in large part on its unique geographical features – water supply, navigability, easy access to the metropolis, variety of accessible open landscapes and sea. Moreover, its attractiveness and hitherto its ability to absorb immigration has fuelled its economy. People want to work here, they also want to retire here and enjoy weekends and leisure time.

- Does governance need to change?

Not fundamentally. We have shown that the institutional threads of cooperation are already in place. But they are just threads. We now need to recognise the lacunae of managing the whole sub-region as an immense environmental asset and to robustly defend it against further degradation.

- How should it change?

The very modest 'duty to co-operate' in the National Planning Policy Framework needs to be immeasurable strengthened and the existence of putative bioregions similarly recognised at national level.

- What can inform this change?

As have seen we already have a strong base of scientific data on our bio-region, but as the biospheres and national park partnership schemes all recognise that evidence needs continuing advancement.

- does Bioregionalism have statutory accreditations? If not, how are we going to 'sell' it?
Not at present, but the Glover Review³⁹ offers the opportunity for National Parks and AONBs to work within the same level of protection and invites cooperation between them. Linking the bodies charged with managing other environmental assets within sub-regions sharing physical geographical assets is but a step.

- If not, what would be the nearest structure in existence that did have a statutory basis that we could use as an alternative?

For the Solent Bio-region, it would have to be a bespoke designation.

- Is there a legal basis in existence we could use for creating a 'bridge' status from the AONBs to the NFNP & SDNP?

No

There are undoubtedly further questions and issues to address but we believe the creation of the Solent as a designated biosphere could raise its profile internationally and provide the area with a structure to allow it to sustainability strengthen both its environment and economy and better face threats such as climate change and sea level rise

An over-arching commitment to safeguard and enhance our natural capital across the bio-region of the Solent would be the ultimate expression of Solent solidarity.

³⁹ <https://www.gov.uk/government/publications/designated-landscapes-national-parks-and-aonbs-2018-review>



A coastal village nestling against the backdrop of the South Downs. Photo credit Dick Pratt



Dark-bellied Brent geese wheeling over West Wittering. Photo credit: Dick Pratt 18 January 2009.