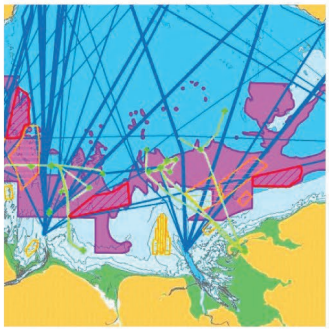
White Paper

Delivering Marine Net Gain

More than just a metric is needed

December 2020




Innovative Thinking - Sustainable Solutions

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Summary

Applying a net gain approach within the planning system is designed to leave the environment in a better state following development, and to secure wider benefits for people and the environment. Marine net gain has been proposed as a mechanism to help reverse biodiversity decline in the marine environment.

The Environment Bill, once enacted, will provide for net gain to be applied to projects subject to planning permission under the Town & Country Planning Act. This will include development in intertidal areas.

Natural England has developed a draft metric for calculating intertidal net gain requirements. While such an accounting tool is a necessary component of a system of net gain, this paper highlights the need for, and importance of, a broader strategic framework to facilitate the delivery of restoration and enhancement projects. In particular, the framework should include:

- Clear net gain objectives and targets for the marine environment;
- A process for identifying and prioritising regional and local opportunities;
- A mechanism for defining specific projects with a supporting business case; and
- Identified project delivery partners.

Currently none of these elements are in place. If net gain is implemented without this underpinning framework, we are at risk of creating an obligation on developers without the means of delivery.

The ideas set out in this White Paper are intended to promote discussion and debate within the UK marine community and are not intended to represent a definitive solution.

Get in touch

We would welcome your thoughts on our White Paper. Please contact Vicky West: vicky.west@abpmer.co.uk, www.linkedin.com/in/victoriawest93/

We would also like to encourage you to join and participate in our LinkedIn Group, dedicated to reviewing biodiversity and environmental net gain and its delivery across intertidal and wider marine environments (www.linkedin.com/groups/8813531).

1 Introduction

1.1 Progress with net gain policy and implementation

In 2012, the Department for Environment Food and Rural Affairs (Defra) consulted on a proposal to introduce a system of biodiversity offsetting within the planning system in England (Defra, 2012). However, the policy was not taken forward at the time.

In 2018, the Government consulted on proposals to improve the planning system in England by introducing a mandatory system to achieve Biodiversity Net Gain (BNG) for development under the Town and Country Planning Act (Defra, 2018). This included intertidal areas covered by the Act. The Chancellor announced in March 2019 the Government's favourable view on mandating BNG for developments in England (UK Government, 2019).

This mandate means that coastal and intertidal habitats will have to be considered, down to the mean low water mark, to account for the whole regime of the Act. While the application of net gain principles in the marine environment beyond the intertidal zone are not explicitly included in these statements, there was reference to a longer-term ambition of extending BNG to marine projects.

Natural England developed and consulted on a draft version of an intertidal biodiversity metric in late 2019. Discussions about the principles and efficacy of this tool are ongoing and are being informed by an 'intertidal metric Sounding Board' that comprises several relevant specialists. Natural England has sought to revise the metric in the light of feedback received and is hoping to adopt the metric in early 2021. However, during this process, there has been sharp criticism from industry representatives who consider the metric, in the form proposed, to be overly complicated and disproportionate both in its application and the outcomes it produces.

In response, the Seabed User and Developer Group (SUDG), an informal grouping of marine industries with a common interest in sustainable development within the UK's marine environment, published a position statement on net gain in January 2020. SUDG has since held two stakeholder workshops to seek to develop agreed principles for implementing net gain in marine and intertidal environments.

While SUDG members are broadly supportive of net gain, following a second workshop in October 2020, they still have concerns about the strategic challenges in delivering net gain in coastal and marine environment, as well as specific concerns about Natural England's intertidal metric. These discussions have highlighted the many challenges that exist when seeking to make interventions at the coast, ranging from working with natural ecosystem processes through to gaining social acceptance for interventions at specific locations. They also highlight the lack of clarity concerning the strategic objectives for net gain.

Alongside work to develop the intertidal metric, the Natural Capital Committee has also provided advice on wider aspirations for marine net gain. In September 2019 (NCC, 2019a) it published its advice on implementing the broader concept of environmental net gain arguing that the concept should be applied to all development (not just development considered under the Town & Country Planning Act) and to all types of development pressure (not just habitat loss).

Only environmental net gain will ensure aggregate natural capital is maintained and enhanced

The application of net gain within the marine environment was also highlighted in the NCC's marine advice (NCC, 2019b) and in its recent end of term report in November 2020 (NCC, 2020).

The NCC advises that government should replace BNG in the Environment Bill with environmental net gain. The BNG measure does not go far enough – only an environmental net gain approach which applies to all development covered by the Town and Country Planning system, all nationally significant infrastructure projects and the **marine** environment will ensure aggregate natural capital is maintained and enhanced.

There is scope to add further habitats to coastal restoration projects, such as mussel beds

Separately, the Wildlife Trusts are strongly supporting the development of Nature Recovery Networks (The Wildlife Trusts, 2018) within their Living Seas programme. This is complemented to some extent by the work of Local Nature Partnerships (Defra, 2012) although their focus and expertise is primarily terrestrial. Net gain policy is seen as an important driver to support nature recovery.

1.2 Challenges for marine net gain

While progress has been made with developing an intertidal metric, significant challenges remain if the metric is to be operationalised to deliver intertidal BNG. The approach requires further development if it is to establish an overall system of marine net gain.

In particular, while a metric is seen as a vital component of any system of BNG, there are many other components also vital to the effective operation of the overall system on which little meaningful progress has been made. For example, as we highlighted in our first marine net gain White Paper (ABPmer, 2019a) much of the strategic framework necessary to support implementation of marine net gain is not yet in place including a lack of strategic objectives for intertidal or subtidal net gain, a lack of identified priority locations for strategic interventions and no clear delivery pathway.

If the intertidal metric is adopted before adequately addressing these strategic issues, then we are in danger of creating an obligation without a practical means of delivery.

Separately, work is urgently required to take forward development of a practical metric covering subtidal areas to enable offshore marine industries to contribute to net gain. As described in our second marine net gain paper (ABPmer, 2019b), it is possible to develop a metric covering impacts both to habitats and species if there is the political will.

This White Paper explores in more detail some of the strategic issues that need to be addressed to support implementation of a system of net gain in the marine and coastal environment and makes recommendations on how this might be achieved.

2 Towards a Strategic Framework

Marine ecosystems are complex socio-ecological systems, and therefore any interventions need to be planned carefully to ensure they contribute to sustainable development.

The concept of 'working with natural processes' at the coast is now well understood. Interventions need to take account of prevailing physical, chemical and ecological processes, so that they contribute and enhance natural functioning of marine systems rather than conflict with them (Environment Agency, 2017).

It is also increasingly recognised that social factors in the public marine space are important (Environment Agency, 2017) and need to be considered in decision-making. Coastal space often supports a range of existing uses and may have particular cultural values. These need to be respected if interventions are to gain social acceptance.

Restoration of our coasts and seas should not be left to chance

Furthermore, if it is left to individual developers to provide intertidal net gain for their specific projects or to landowners to provide net gain biodiversity units as part of a regulated market, this may result in a series of uncoordinated interventions at the coast, delivering those interventions that are easiest to secure and at the easiest (cheapest) locations.

For these reasons, there is much sense in adopting a strategic co-ordinated approach so that the benefits from net gain can be maximised by addressing priorities for the types and location of intervention. We adopt a strategic approach for the siting of national infrastructure such as offshore wind farms for good reasons. The approach to the strategic restoration of our coasts and seas should not be left to whim and chance.

We consider that the key components of a strategic framework for the UK should include:

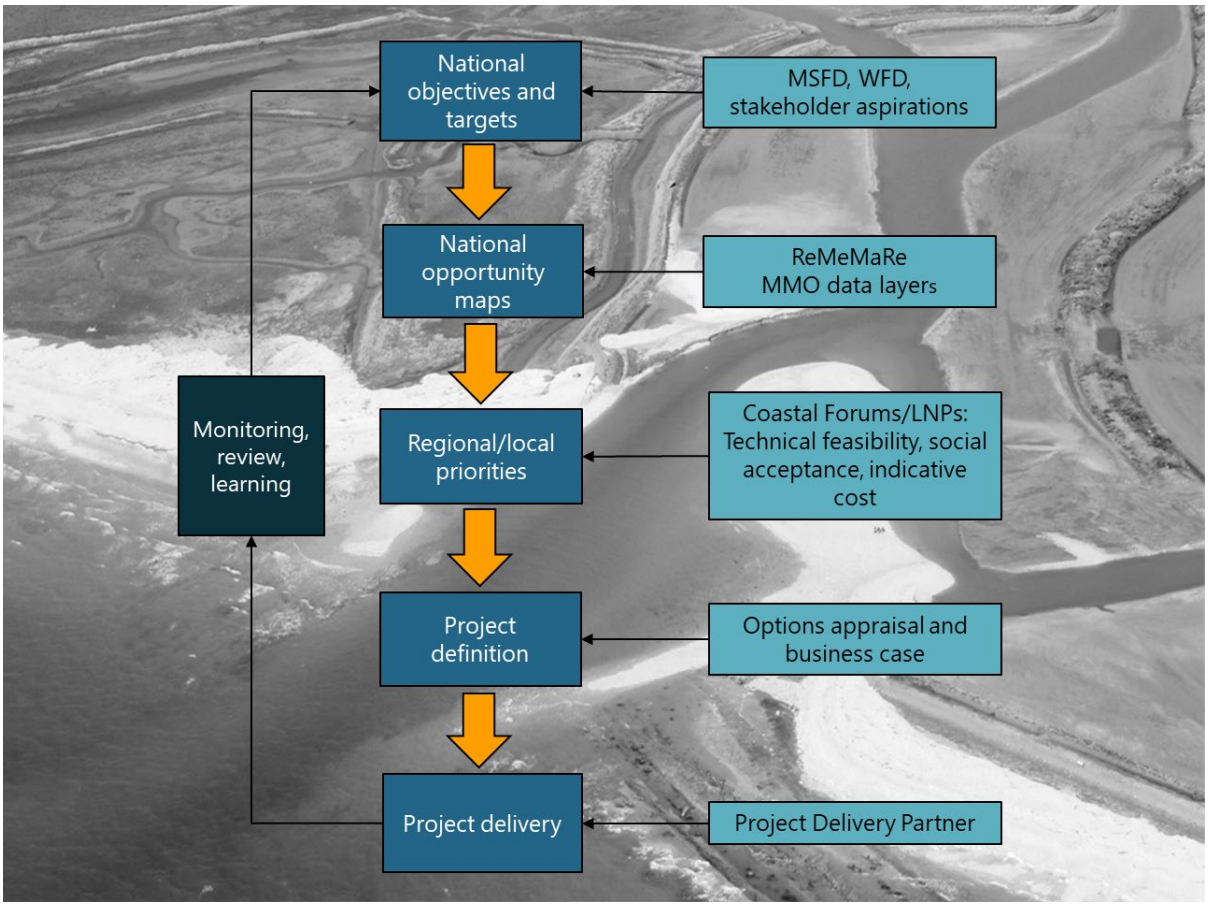
- Identification and articulation of **clear net gain objectives** for the coastal and marine environment.
- Broad scale (national level) technical **identification of potential opportunities** for net gain.
- **Prioritisation of opportunities.**
- **Project definition and business case.**
- **Project delivery.**

These components need to be progressed within a coherent **governance framework** which provides for learning-by-doing, as part of an overall adaptive management process.

A schematic representation of our suggested framework is provided in Figure 1 with the elements of the framework discussed in turn below.

2.1 Establishing coastal and marine net gain objectives

To prioritise the types and locations of interventions, there needs to be clarity from Government concerning its priorities for restoring and enhancing the marine environment. Without such clarity, the delivery of net gain is likely to focus on the easiest and cheapest interventions.



Background Photo RSPB: Medmerry Realignment January 2019

Figure 1. Illustrative Strategic Framework for Marine Net Gain

There are already many objectives and targets that have been established for the marine environment, for example, under the Marine Strategy Framework Directive (MSFD) and Water Framework Directive (WFD).

It would seem logical that these objectives and targets should form the starting point for developing more specific targets for marine net gain which could then be captured and reported against the 25-year Environment Plan.

These might include specific regional (and even local) targets for habitats such as saltmarsh, mudflat, biogenic reefs and seagrass beds, as well as targets to boost species' populations and/or reduce anthropogenic pressure on habitats and species. These more detailed objectives and targets could take account of historic losses of ecological features and stakeholder aspirations.

2.2 Broad scale identification of potential opportunities

Several projects have explored the potential to create or restore coastal habitats in English waters (MMO, 2019; ReMeMaRe, 2020). These studies have been high level and broad scale in nature, taking account of basic information on the physical suitability of locations for creating different habitats. Maps have been created for saltmarsh, mudflat, native oyster and seagrass beds.

There is scope to add further habitats of potential interest such as mussel and horse mussel beds, kelp beds and possibly other biogenic features such as maerl, particularly identifying areas where such features formerly existed but have been lost as a result of anthropogenic pressures. This would help extend restoration initiatives into subtidal environments, although it must be recognised that there is much less experience of restoring such habitats, so the outcome of such interventions is less certain. Depending on the overall objectives for net gain, consideration might also be given to potential locations for the restoration of migratory fish populations such as Twaite and Allis shad or smelt, as well as options for restoring and enhancing wader and seabird populations.

The existing maps for mudflat and saltmarsh have primarily focused on opportunities to create new habitat, but could be expanded to include additional locations for habitat restoration.

The overall aim should be to identify broad-scale opportunities for all features/interventions contemplated by the high-level objectives and targets to identify and prioritise locations for specific interventions.

2.3 Prioritisation of opportunities

While broad-scale data layers are helpful for illustrating the possible size and location of potential opportunities, there is necessarily a high level of uncertainty concerning the technical feasibility, cost effectiveness or social acceptability of making interventions at specific locations.

More detailed evaluation of the potential for restoring or enhancing existing habitats and or species is required to provide greater confidence in the potential site-specific opportunities and constraints and to facilitate prioritisation of locations for specific interventions. This prioritisation process can help to focus subsequent work to select preferred sites for intervention.

We suggest that the prioritisation process should take account of:

- Regional/local marine net gain objectives and targets;
- Congruence with existing policies (e.g. marine plan policy, development plan policy, Shoreline Management Plan policy, Coastal Strategies, Port Master Plan policy);
- Congruence with ecosystem functioning;
- Delivery of multiple benefits (ecosystem services assessment); and
- Existing constraints (including potential for stakeholder objection)

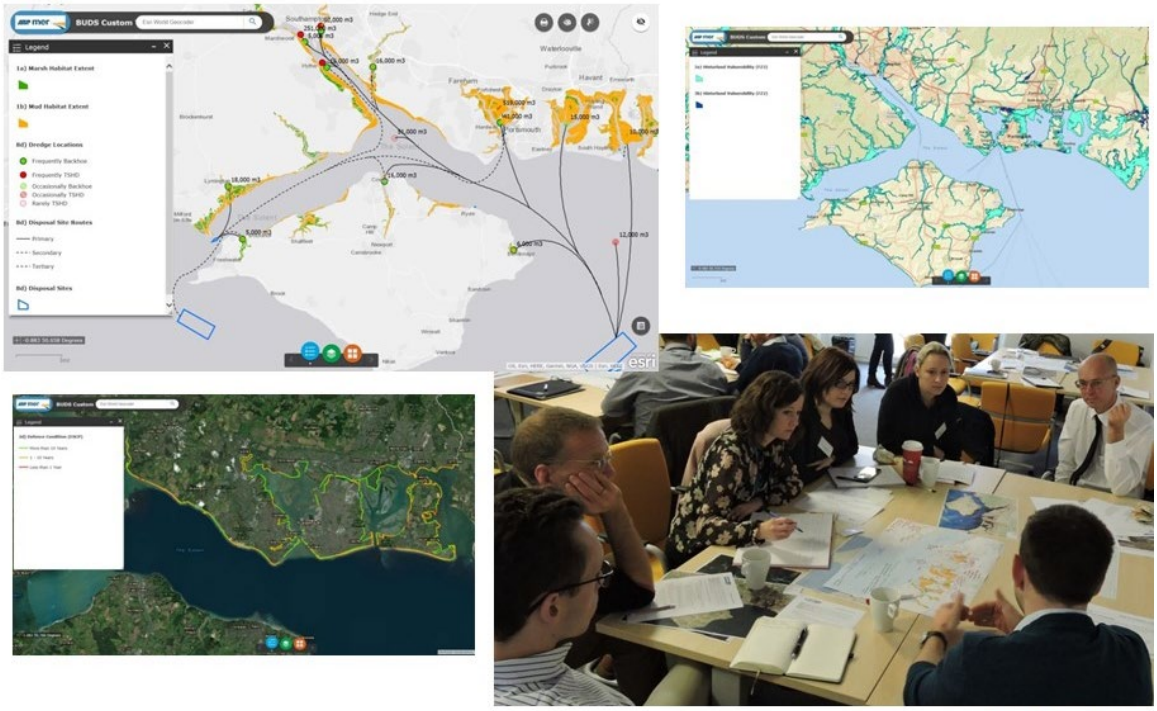
It should be noted that, while much of this process might be considered to be a technocratic exercise, it is also likely to be important to start engaging with local stakeholders at this point, to ensure that emerging priorities have a level of social acceptance.

All coastal and marine interventions will be delivered in what is effectively public space, or adjacent to public space. Coastal margins, in particular, tend to be intensively used for a range of activities; interventions should therefore ideally seek to enhance existing uses, or at least not detract from them. There may well be an important role here for Local Nature Partnerships (LNPs) or Coastal Forums to engage with local stakeholders and draw on their expertise to identify local opportunities and priorities. Such bottom-up input is also likely to be crucial in building social acceptance.

Solent BUDS Project: Prioritisation of Opportunities for Beneficial Use of Dredged Sediment

The Solent Forum's BUDS project has sought to progress large scale beneficial use of dredged, muddy sediment within the Solent to protect and enhance existing intertidal habitats.

The project used broad scale maps identifying where dredging occurs and coastal locations that might benefit from sediment recharge. Working with stakeholders, these opportunities were prioritised taking account of potential site-specific benefits, stakeholder views on constraints and information on relative cost (distance from location of dredging and ease of access for sediment placement). This helped to generate a shortlist of candidate receptor sites that were considered suitable by local stakeholders.



2.4 Project definition and business case

Once potential locations have been identified for specific interventions, a more detailed appraisal of options will be required to identify a preferred scheme. Where projects are likely to be competing for funds from a national or regional pot (as is the case with net gain), it is likely that a formal appraisal process will need to be applied to ensure projects deliver value for money and to provide the business case for investment.

This is likely to require some form of cost benefit analysis. We suggest this might usefully be based on an ecosystem services framework to most effectively capture the multiple benefits of interventions. This approach has been successfully applied to various proposed nature-based interventions (Solent Forum, 2020).

Using an ecosystem services framework as part of an overall cost benefit analysis facilitates decision-making

2.5 Project delivery

Each project will require a lead delivery partner responsible for managing the delivery plan and programme. This might be a public body such as the Environment Agency, which routinely manage coastal development projects, or third parties such as environmental NGOs or local community groups providing they have the competence to deliver the project. Projects might also be delivered by developers when they are interventions relating to their specific project, although developers may prefer to simply pay into a pot to buy government units to discharge their obligations. This will depend on the cost of government units and how delivery risk is priced for within those units.

The role would involve obtaining all necessary consents and permissions as well as managing the works to implement the specific intervention. The role could subsequently include responsibility for monitoring delivery of outcomes and implementation of adaptive management actions to support achievement of project objectives and maximise the net gain potential of the intervention.

2.6 Governance

To deliver a strategic approach, there will need to be a level of strategic oversight. This will likely need to be provided by the Defra family, working through a Project Board. The Board could provide the following roles:

- Establishing the strategic framework for realising a pipeline of net gain projects that achieves net gain objectives and targets;
- Providing oversight and advice to regional/local net gain partnerships;
- Allocating funding to regional/local partnerships to deliver specific net gain projects balancing risk across different types of intervention; and
- Receiving reports from regional/local net gain partnerships on specific interventions and progress towards objectives and targets.

Regional/local net gain partnerships would need to have responsibility for identifying specific projects to deliver net gain objectives and targets and for facilitating their delivery while managing risk. They would be required to make regular reports to the Project Board.

While the framework would be established to deliver net gain requirements, identification of regional/local pipelines of priority projects would also attract funding from diverse sources and reflecting diverse motivations. This might include landowners, environmental NGOs, philanthropic investors or investment in carbon offsets.

A key element of the governance framework is monitoring and adaptive management. Marine and coastal restoration and enhancement is a young discipline; for many types of intervention there is limited experience of the factors contributing to their success. It is therefore fundamentally important that the overall programme learns from experience and that lessons learned are incorporated into future projects.

3 Overcoming Barriers

A metric for the subtidal environment would maximise the benefits of net gain

Implementation of a strategic framework along the lines of the above would provide a firm basis to facilitate delivery of restoration and enhancement initiatives as part of marine and coastal net gain.

To facilitate more effective delivery several further policy developments are likely to be needed. These are required to address rigidities in the current marine management framework which have the potential to distort priorities or impose unnecessary bureaucratic burdens on the delivery of net gain projects. These include:

- The current multiplicity of decision-making frameworks - different decision-making frameworks for projects affecting/not affecting MPAs and for different types of MPAs;
- The 'additionality' principle that is applied to decisions on interventions relating to Natura 2000 sites; and
- The complexity of licensing processes at the coast and the marine licensing system.

More broadly, to maximise the benefits of net gain, progress needs to be made in developing a marine metric for the subtidal environment. Given the nature of impacts in the marine environment, consideration also needs to be given to how metrics might better incorporate a wider range of impacts and pressures (see discussion in our second net gain White Paper (ABPmer, 2019b)).

3.1 Decision-making frameworks

Environmental regulation in the marine environment has developed piecemeal. This has created overlapping and conflicting legislation held together by increasingly fragile policy 'glue' (see e.g. Hull 2019, chapter 10).

The consequence of this is that individual legislative requirements can be used to drive decision-making in favour of a more balanced approach to achieving environmental goals or broader sustainable development objectives. This is particularly the case with legislation relating to MPAs (and especially the Birds and Habitats Directives) where multi-billion-pound projects important to delivering net zero are being delayed due to a lack of absolute scientific certainty that a project will avoid an adverse effect (Russell, 2020).

There is a very real concern that an overfocus on the means (strict compliance with what some might see as overly prescriptive legislation) will result in failure to achieve the desired ends of environmental policy – a better environment for all.

In our first net gain White Paper we called for public bodies to be subject to an over-riding statutory duty to achieve net gain through their decision-making processes as a means of providing a sufficient focus on achieving the broad goals of marine environmental policy. This might be supported by some rationalisation of existing legislation and policy relating to decision making on plans and projects, for example by providing greater flexibility in offsetting residual impacts to deliver better long-term outcomes for the marine environment.

3.2 Additionality

There is an established policy principle under the Habitats Regulations that where developers are seeking to provide compensatory measures, these measures should be additional to any measures required to achieve favourable condition for site features (European Commission, 2018, page 62). This is on the basis that national governments already have an obligation to achieve favourable condition.

Around 80% of UK estuaries and 50% of coastline is currently designated as SAC, SPA or Ramsar as part of the Natura 2000 network. Natural England's Improvement Programme for England's Natura 2000 sites (IPENS) (Natural England, 2012) project has identified a large number of actions required to support achievement of favourable condition for Natura 2000 site features.

Revisiting the 'additionality' policy would help finance environmental priorities

If the 'additionality' policy is maintained in relation to intertidal or marine net gain, this could mean that many of the priorities for intervention within our most important wildlife sets could not be addressed as part of net gain actions. This could significantly distort investment in restoring coastal and marine environments with investment being directed away from priority interventions to protect our most valuable wildlife sites. With changing circumstances, it would appear appropriate to revisit the additionality policy so that available monies can be directed towards environmental priorities.

3.3 Licensing processes

Most marine and coastal net gain interventions will be subject to the marine licensing system and applicants will be required to prepare environmental appraisals or formal Environmental Impact Assessments (EIAs) (and other supporting assessments) in support of their licence applications.

While it is right that interventions should be subject to the requirements of marine licensing as appropriate, it is suggested that consideration might be given to establishing a streamlined process for smaller interventions (particularly those that do not require engineering works), possibly including exemptions or standard rule permits. It is noted that under the Habitats Directive (Article 6(3)), where a plan or project is being progressed for the purposes of managing the site, it is not subject to the requirement for Appropriate Assessment (AA). A similar relaxation for net gain interventions would seem appropriate.

4 Conclusions

To be successful in restoring and enhancing our marine environment (successfully achieve net gain to significantly enhancement the marine and coastal environment) a strategic, systems approach is required, which fits into a wider delivery structure for nature recovery.

This will need to be supported by a strategic framework that directs interventions towards national and regional priorities and which facilitates the delivery of interventions that maximise benefits and have stakeholder support. This requires coordination to agree clear objectives, monitoring and evaluation of net gain approaches, and in allowing adaptive management in response. While a metric is a necessary accounting tool, on its own it will not achieve real-world change.

Based on our experience of planning for and delivering other strategic habitat interventions, we propose that the key components of a strategic framework for net gain should include:

- Identification and articulation of **clear net gain objectives** for the coastal and marine environment;
- Broad scale (national level) technical **identification of potential opportunities** for net gain;
- **Prioritisation of opportunities**;
- **Project definition and business case**; and
- **Project delivery**.

These components need to be progressed within a coherent **governance framework** which provides for learning by doing as part of an overall adaptive management process.

To further support focused delivery of restoration and enhancement of our marine environment, wider policy measures are likely to be required to focus decision-making on achieving the desired outcomes and streamlining licensing processes.

5 Abbreviations/Acronyms

AA	Appropriate Assessment
BNG	Biodiversity Net Gain
BUDS	Beneficial Use of Dredged Sediment
Defra	Department for the Environment, Food and Rural Affairs
EIA	Environmental Impact Assessment
IPENS	Improvement Programme for England's Natura 2000 Sites
LNP	Local Nature Partnership
MMO	Marine Management Organisation
MPA	Marine Protected Area
MSFD	Marine Strategy Framework Directive
NCC	Natural Capital Committee
NGO	Non-government Organisation
Ramsar	Wetlands of international importance, designated under The Convention on Wetlands (Ramsar, Iran, 1971)
ReMeMaRe	Restoring Meadows, Marshes and Reefs
RSPB	Royal Society for the Protection of Birds
SAC	Special Areas of Conservation
SPA	Special Protection Area
SUDG	Seabed User and Developer Group
UK	United Kingdom
WFD	Water Framework Directive

Cardinal points/directions are used unless otherwise stated.

SI units are used unless otherwise stated.

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Contributing Authors

Prepared by Stephen Hull in collaboration with Vicky West and Colin Scott.

Images

ABPmer
Quayside Suite, Medina Chambers, Town Quay, Southampton, Hampshire SO14 2AQ
T: +44 (0) 2380 711844 W: http://www.abpmer.co.uk/

Contact Us

ABPmer

Quayside Suite,
Medina Chambers
Town Quay, Southampton
SO14 2AQ

T +44 (0) 23 8071 1840
F +44 (0) 23 8071 1841
E enquiries@abpmer.co.uk

www.abpmer.co.uk