ANNUAL **JOINT KNP BOARD & MANAGEMENT WORKING GROUP** (MWG)
THEMATIC MEETING: **Focus on our freshwater and marine environments**
Sevenoaks Wildlife Reserve KWT
Bradbourne Vale Road, Sevenoaks, Kent, TN13 3DH

Friday 20th May 2022 Minutes

Attending	
Matthew Balfour	KNP Chair
Gary Walters	KNP Vice Chair
Susan Carey	KCC Cabinet Member for Environment
Chris Drake	Kent County Council (KNP)
Alan Jarrett	Leader of Medway Council
Kathi Bauer	South East Rivers Trust
Peter Garrett	Medway Council
Liz Milne	Kent County Council (KNP)
Hannah Simmons	Kent County Council (KNP)
Gregor Mutch	Managing Director of Brett Aggregates
Helen Shulver	KCC - Kent Environment Strategy
Sean Ashworth	Senior Environment Strategy Specialist at Southern Water
Chris Gardner	South East Rivers Trust
Tom Cook	Environment Agency
Will Wright	Kent and Essex Inshore Fisheries and Conservation Authority
Matthew Smyth	Director for Environment and Waste KCC
Matthew Woodcock	Forestry Commission
Alison Ruyter	Kent Wildlife Trust
Rory Harding	Kent Wildlife Trust

Apologies	
Evan Bowen-Jones	Kent Wildlife Trust
Alan Johnson	RSPB
Charles Tassell	Country Land & Business Association
Bethany Pepper	KCC
Jim Seymour	Natural England
Stefanie Bramley	Dover District Council
Sophie Stiles	Ashford Borough Council
David Scully	Tunbridge Wells Borough Council
Kent Public Health	
Nick Fenton	Kent Housing & Development Group

Item 1

Matthew Balfour introduced the meeting objectives and the outcome which was to determine what role the KNP should have in the delivery of action for the freshwater and marine environments. He welcomed the three guest presenters.

Item 2

What the Kent Biodiversity Strategy and State of Nature in Kent report says about freshwater and marine environments – Chris Drake. With the Biodiversity Strategy published 2 years ago and the State of Nature soon to be published, it is important to refer to these guiding documents in relation to the work on freshwater and marine habitats being discussed in the meeting.

The objectives for freshwater and intertidal ecosystems, habitats and species were put up on the screen: https://kentnature.org.uk/strategy/freshwater-and-intertidal/

The State of Nature report is wide ranging and there was some work done to marry findings with biodiversity objectives but across freshwater and marine headlines, the most striking headlines are as follows:

Freshwater

- Water industry discharges are the biggest contributor of phosphorus to Kent's rivers and lakes, followed by agriculture and private sewage treatment plants.
- In 2019, 79% of the rivers and lakes in Kent monitored for phosphorus did not meet the required standard for good ecological status as set out under the Water Framework Directive. (Compared to 67% of water bodies across the South East, and 56% throughout England).
- In 2019, 77% of Kent's groundwater bodies did not meet the required WFD standard for good chemical status and two groundwater bodies deteriorated, in part due to the presence of nitrates in the water. (Across England, nitrates are the most common cause of groundwater test failures).

Kent are lagging behind both figures for England and the South East. This is worrying, in terms of increased aquatic weed growth and algal blooms, reduced light penetration and in turn decomposition and reduced oxygen levels, resulting in fish and invertebrate deaths and an overall reduction in the biodiversity.

The objectives for Marine ecosystems, habitats and species were put up on the screen: - https://kentnature.org.uk/strategy/marine-ecosystems/

The Marine headlines in the State of Nature report mainly related to the establishment of Marine Conservation Zones' over the last ten years, and public engagement such as the Guardians of the Deep project, but invasive species and nutrient enrichment are also featured.

So, the Biodiversity Strategy objectives were consulted on and peer reviewed, they will be taken forward, but KNP are waiting on secondary legislation for the Environment Act, to take a decision on whether these objectives may sit better within the Local Nature Recovery Strategy.

Item 3

Chalk streams in Kent and Catchment Management - Dr Chris Gardner, Catchment Manager, South East Rivers Trust. Power Point will be circulated with these minutes, but key points follow.

The Catchment Based Approach (CaBA) brings key stakeholders together, to agree and deliver the strategic priorities for the catchment, bringing more locally focused decision making, involving local people to decide on the priorities of work to be undertaken. This all comes together to improve the environmental status of the aquatic environment through delivering positive and sustained outcomes and promoting better understanding of this environment at a local level.

To deliver this, the government supplies a small grant, and the catchment partnerships prioritise projects in the catchment. There is a large return on investments, with 40:1 return on the Medway. However, out of all the rivers under the catchment partnerships, none have high condition, some are good, but most are in a moderate or poor state. The main objective is to stop and reverse the decline of rivers' condition.

As one of the priority habitats in the Kent Biodiversity Strategy, Chris focused on chalk streams:

Chalk streams are a globally rare habitat, there are only 250 in the world. The unique features of chalk streams include: -

- Stable flow regime. Flow of streams across the seasons are much more stable compared to other river types. There is a legacy of water mills on chalk streams/rivers due to constant flow of water year-round.
- Stable temperature regime which allows a longer breeding/growing season.
- Low energy (small flood peaks).
- Low sediment inputs (due to groundwater rather than surface run-off).
- Water quality in chalk streams is high through chalk filtration.

These unique features mean that the animals and plants found in chalk streams have adapted to this specific aquatic environment. An example of this is chalk stream salmon becoming genetically distinct from those living in other river types.

For a long time, tributaries into the Darent were not documented or protected. A new list of CaBA chalk streams published last month does include some of these, however, many of the smaller chalk streams are still missing from across Kent. South East Rivers Trust are using the mapping to determine if our chalk streams (and all freshwater environments) are adequality protected.

Threats to chalk streams include:

- Water Quantity and Abstraction – see abstraction reform and reductions (e.g., Water Resources South East) and Water Neutrality measures. The River Cray and Darent some of the most impacted by abstractions across the UK putting these rivers at risk in dry years.
- Water Quality –
    - Nutrients: Sewage Treatment Work Discharges and Diffuse Pollution – Nature based Solutions being used - treatment wetlands, Nutrient Neutrality; The Darent is in rare in not having any discharge stations along the river.
    - Sediment: Diffuse Pollution – land management / improved farming practices / change of use / Nature based Solutions / addressing urban inputs are among the solutions.
- Habitat Quality and Connectivity – e.g., Watermill legacy infrastructure results in barriers and impoundments which may impact fish migration. The impoundment affects the availability of gravel which is important for invertebrates and brown trout eggs – this can be combatted through River Restoration.
- Natural Processes arrested by river regulation – this can be combatted through River Restoration.

There are many Improvement Groups established and nature-based solutions projects taking place. There are some examples of this work on river restoration.

- Carshalton – Along with weir removal, channel narrowing and gravel introduction, it was the silt traps that made all the difference in re-establishing the Brown Trout population.
- Darent – Re-establishing the western channel near Acacia Hall. This required a flood model but has ultimately worked towards reducing flood risks in Dartford. Also, in the Upper Darent there has been some weir removal.

Item 4

The Environment Act and the freshwater environment, plus Biodiversity Net Gain including the rivers metric – Tom Cook, Biodiversity Technical Specialist, Kent, South London & East Sussex Area, Environment Agency. Power Point will be circulated with these minutes, but key points follow.

Tom described the importance of the 10-metre riparian zone which runs from the top of riverbanks. These areas naturally flood, directly influencing the hydrological, geomorphological, and biological functions and processes within the river channel. The Environment Agency has an ambition to achieve at least 20% net gain for developments in its capital programme, which will help biodiversity flourish in both the riparian zone and river channels. Tom described their Rivers Metric tool which will be used to make these net gain calculations.

Overview of Rivers Metric tool

The River Metric tool is one of three strands of the Defra Metric, the others being terrestrial and linear (hedgerow) metrics. Rivers and streams are a standalone metric type, the score cannot be combined with the terrestrial and linear hedgerow habitats. Using the tool, the aim is to improve the quality of rivers and streams. The rivers metric includes the following habitat types:

- 'Main River' and 'Ordinary Watercourses'
- Canals, canalised rivers and ephemeral watercourses (e.g., winterbournes & headwaters)

- Ditches - “artificially created linear water-conveyancing features <5m wide” (not assessed using MoRPh survey)

For now, estuarine and coast habitats are included in terrestrial habitats.

Elements for calculating the metric: The goal is to establish a baseline to then improve it through net gain. Distinctiveness and condition have the highest weighting. There is a website to help you to determine the river type. The surveys are based on what you can see, not what you know or technical details, so everyone can do the survey. The Metric output gives you a number that equates to a classification.

Take home messages about the Rivers Metric:

- Watercourses will need full assessment for both ecology and the BNG Rivers metric, to provide both ecology advice and BNG baseline
- Developments within 10m of the ‘top of bank’ will be encouraged to:
    - Place development at least 10m from the bank top
    - Create more diverse riverside habitats and natural banks
    - Restore more in-channel features
    - Aim for a general reduction in man-made environments in the watercourse corridor
- The removal of structures affecting watercourse encroachment (if they are now redundant) offer easy BNG wins.

EA contribution to BNG

- Capital schemes to protect property from flooding – includes a presumption to consider Natural Flood Management
- The EA has an ambition to achieve at least 20% net gain through its capital programme
- Also looking at achieving BNG through their revenue programme
- Environment Programme and Flood Risk Programme integrated- The EA is starting a 6-year programme now.
- Carbon Net Zero - EA ambition by 2030. Carbon net zero includes offsetting – no funding allocated yet.
- WFD targets and Catchment Partnership projects
- A refreshed focus on chalk streams

Some of the capital schemes include:

- Large repairs or replacement of embankments
- Rebuilding of walls and larger urban defences.
- Replacing or rebuilding pumping stations and outfall
- Weirs and other flow control structures
- Natural Flood Management
- Managed Realignment such as Managed realignment for Swale estuary.
- Freshwater habitat creation as compensatory habitat

Capital Schemes Contribution to Kent Nature Targets

- Will require a minimum of 20% net gain along rivers – which will push for significant improvements.
- Will require modest terrestrial net gains, but significantly more habitat if we aim to achieve carbon net zero.
- Opportunity to integrate ours and partner objectives to help deliver projects

Item 5

Questions for presenters and facilitated discussion– Liz Milne

Susan Carey: The Riparian zone is defined as a 10m zone from top of the riverbank. Why was 10m decided as the measurement? 10m is the minimum for having less impact. As soon as you get any closer you have more impact. The Metric considers the 10m flood pairing.

Alan Jarrett: How can the net gain achieved be stopped from degrading overtime? Very much down to site owner to manage land at the moment. When net gain comes in, those providing the gain must report periodically, then Local Authorities have a burden fund to be able to review these. Habitats such as estuaries would ideally manage themselves.

How are we working with the farming community to reduce flooding? Farming practice is improving all the time, they are doing lots of positive things to address flooding issues. Farmers are also being made aware of legislation surrounding aquatic environments and their roles in protecting these habitats. Also, Southern Water are working with farmers to reduce pollutants into drinking water.

If we are currently neglecting good water bodies in favour of improving those with moderate or poor quality, what will happen in the future to these currently good water bodies? It is an important balancing act of maintaining those in good condition alongside improving those with moderate and poor condition, and not allowing those in good to slip back.

For the spring lines not identified in talk; will they be addressed in the future? Remapping is part of the consultation objectives to try to capture all of them. Knowing the locations of all these spring lines will be important for Local Nature Recovery Strategy (LNRS).

Peter Garrett: Is nitrate load impacting the chalk streams? Phosphate tends to be the most limiting for chalk streams, but nitrate is more of a problem for water companies. Nitrates do become more of an issue when they reach the marine environment.

Item 6

Overview of Kent and Essex Inshore Fisheries and Conservation Authority (IFCA) – **Dr Will Wright** – Chief IFC Officer Kent and Essex IFCA

- Overview of IFCA, including role in marine nature recovery.
- How the IFCA works with Natural England and others.
- Marine Protected Area work including Fisheries assessments.
- Bylaws including for Medway Marine Conservation Zone (MCZ).
- New surveys to ascertain the location of sensitive features of MCZ's.

The K&E IFCA cover an area of 3,412 km2. It is funded by both Essex and Kent County Council's. They work with councillors, the Marine Management Organisation, the Environment Agency and Natural England.

The work is a balancing act of protecting environment and pleasing the fishermen and developers. Developers want to know what is protected and why it is protected. Sandbanks move so need to protect an area not just the sand bank. A "no bottom tow gear" bylaw was created to support stages and lifestyles of biodiversity. Thanet has the longest continuous chalk reefs and unless it could be proven where the chalk is, fishing works would have to stop in a whole zone. Through communities buying into the protection schemes, you can then effectively protect the chalk reef.

There has been a 70% loss of saltmarsh since 1850. Saltmarsh habitat is part of the fisheries cycle but not protected unlike in America. In 2016 a No Take zone was created between the Hoo Marina and Elphinstone Point. Nursery areas are important for a range of fish as well as providing additional benefits of protection from rising sea levels and other ecosystem services. This Medway Nursery Area is the UK's largest no-take zone, and the 2016 bylaw is enabling a recovery of bass stocks and ensuring the protection of a range of species with the Medway Marine Conservation Zone.

IFCA have been supporting the EA's small fish surveys and worked with the community to help them understand the importance of the river and fish. In the future, similar surveys will help to inform Fisheries Management Plans.

Goodwin Sands 2021 example: Designated for a variety of species and has its own conservation objectives. Sabellaria reef – worms stick together sand to make structures which supports small fish and crabs. Difficult protecting something that moves all the time. Used side scan surveys to use echo response to map seabed. Used ARIS to create a far better resolution of the structures. Gives you an idea of where the species are and build up a habitat map.

Thames Estuary Cockle Fishery example: This is one of the largest cockle fisheries in the UK and is worth £3-6 million. Through surveying efforts, a set annual total allowable catch (TAC) was calculated, which is divided between 14 licences. Boats were monitored over the years to understand where they were fishing. Balancing no take zones with right amount of fishing.

Will said that much of the work described is helping deliver the KNP biodiversity objectives on marine and intertidal habitats.

Item 7

Brief update on Local Nature Recovery Strategies and marine - **Chris Drake**

The main purpose of LNRS is for terrestrial environments, so the Defra position is that marine can be included but it won't be statutory. This means public bodies do not need to "have regard" to the marine aspects. The LNRS will align with LPA local plans and have the same statutory cut off point – this can be mean low water, but sometimes below this.

The NE view is that stakeholders' views are key to LNRS, and it would be remiss of coastal LNRS not to pick up some marine & coastal aspects. LNRS development will be iterative, and Defra will

shape their view on marine aspects as they go on. However, this is very different to taking in the whole inshore/offshore area.

LNRS will not be the whole solution for our biodiversity objectives. Clearly the coastal and marine environment will still need careful consideration for a Kent and Medway LNRS with our extensive coastline and estuaries, but it maybe that any role we develop for wider marine matters will need to be delivered by different means.

Other policy areas such as UK Marine Strategy Regulations and Marine & Coastal Access Act have a role to play, but we haven't a vehicle within this akin to LNRS. Then the Environment Act 2021 does have some marine targets in both Nature Recovery Green Paper and the upcoming Environmental Targets consultation. At present there is no time bound target for MPAs and their condition, which is crucial to restoring wider marine biodiversity.

It is worth bearing in mind that most of our Kent Biodiversity Strategy marine objectives are about Marine Protected Areas' (MPA's), so there may be some strategic links to LNRS to discuss, but the most obvious of our marine objectives that might get covered by LNRS are "*There is better understanding of the subtidal and tidal environment and ephemeral marine features, with the development of spatial management plans and strategic action for those areas at most pressure*." & "*The natural capital value of the marine environment as a carbon sink is better understood and being managed to realise this contribution*."

Jim Seymour from Natural England will ensure input on marine at the next KNP Board meeting, but they are currently having resourcing issues.

Item 8

Questions and Facilitated discussion – Liz Milne

Liz posed the following questions: -

- Consideration of any gaps, risks and opportunities for marine work that could be picked up by Local Nature Recovery Strategy.

- How can the Local Nature Recovery Strategy provide a stronger focus for the delivery of our Kent Biodiversity Strategy freshwater objectives? Do the current Biodiversity Strategy objectives go far enough in the light of pressures on the freshwater environment?

She referred to opportunities presented by the Local Nature Recovery Strategy: https://kentnature.org.uk/nature-recovery/local-nature-recovery-strategy/

Group recommendations:

Rory said that freshwater and marine habitats go hand in hand with each other and work across aquatic environments should be collaborative.

Nature-based solutions, such as flood alleviation, should feature in projects to improve the health of aquatic environments to gain interest from more parties who may be more focused on terrestrial projects. Gregor suggested that if some “low hanging fruit” projects can be identified and successes celebrated, this will help build confidence in doing more of this work.

Generally, it was agreed that there should be a call for sites for projects that would be suitable for improvements as part of BNG or within Local Nature Recovery Strategy

The RSPB may be a good first contact, as well as including all the catchment partnerships coordinated through the South East Rivers Trust, the Darent Landscape Recovery and Kent Wildlife Trust projects. Many of these partners would come with a good volunteer base to facilitate these projects once they get the green light.

If Local Authorities choose a 20% BNG, it may be that the first 10% is delivered on site, and the second 10% goes towards a river project if some of these are quick wins (such as removing redundant structures that are affecting water encroachment). Projects like these should be identified.

Identifying a baseline (or acquiring the data to establish a baseline) should be a priority to ensure that we can measure the impact that works are having.

The recovery of saltmarshes should be included in Local Nature Recovery Strategy.

The coordination of sites for a “green register” (a current initiative) should also be extended to aquatic sites and environments to create a blue-green register. Liz is involved in these discussions.

Item 9

Next Steps – Matthew

Matthew thanked the presenters and the group for their input and said that as a result of the meeting the KNP are much better informed on freshwater and marine.

How freshwater and marine Kent Biodiversity Strategy Objectives are taken forward through both Biodiversity Net Gain and the Local Nature Recovery Strategy will be central to KNP action in these areas.

While KNP have been working on these areas, work will not be able to start in earnest until after secondary legislation for the Environment Act is available, which we are now told will be at the end of the year.

In the meantime, the KNP will, take a closer look at the useful recommendations made in this meeting and start to prioritise actions for the freshwater and marine environment.