PAS - Workshop 4

Nutrient Neutrality – Delivering a Catchment Approach

3rd May 2022

Agenda

- Catchment Based Approach and NN –Mark Lloyd, CEO, Rivers Trust, Catchment Based Approach (CaBA)
- Chairing a Nutrient Management Board – Cllr Elissa Swinglehurst, Herefordshire Borough Council
- Nutrient Neutrality – Housing Supply and Mitigation Credits – Simon Kennedy, Strategic Environmental Planning Officer, Partnership of South Hampshire
- Long term strategic plan for returning sites to favourable condition status - Elen Strale and Stephanie Firth, Defra
- Diffuse Water Pollution Plans and Nutrient Management Plans – Kathryn McKendrick-Smith, Natural England

Catchment Based Approach (CaBA) and Nutrient Neutrality

Mark Lloyd

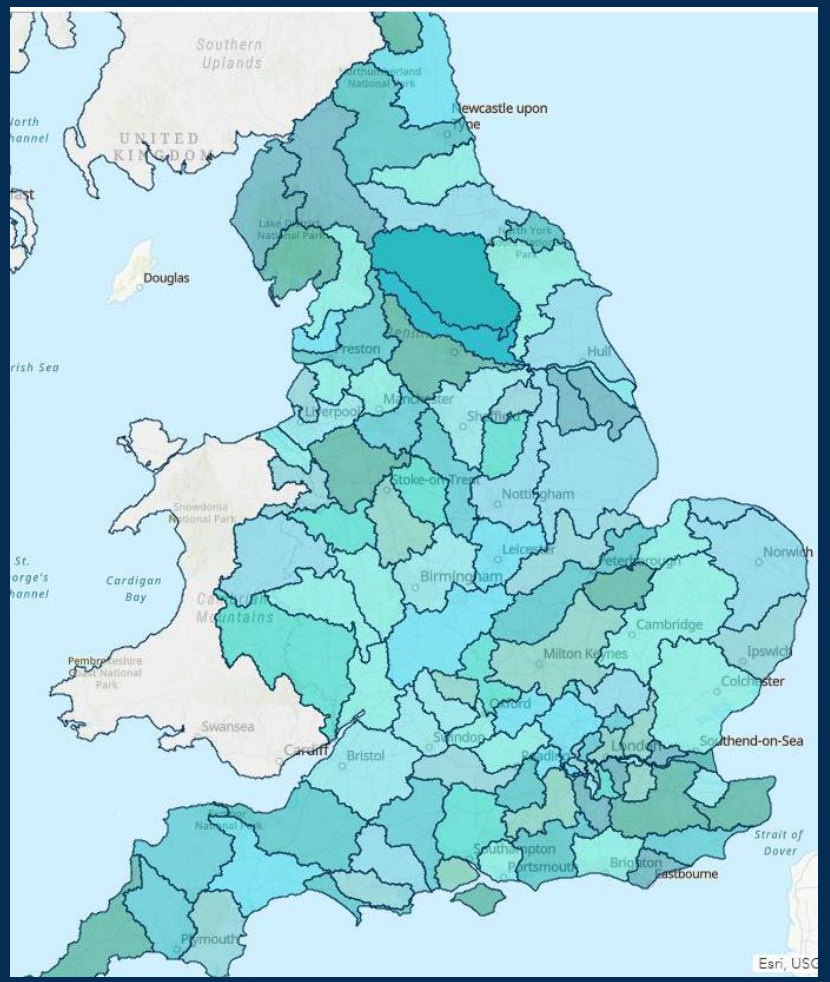
CEO, The Rivers Trust

https://catchmentbasedapproach.org/

Catchment Based Approach

Catchment Based Approach (CaBA)

- 106 river catchment Partnerships encompassing the whole of England
- Diverse mix of organisations – environmental NGOs, water companies, Local Authorities, Government Agencies, farmer groups, local community groups
- Each with a host or lead organisation, supported by an EA Catchment Coordinator

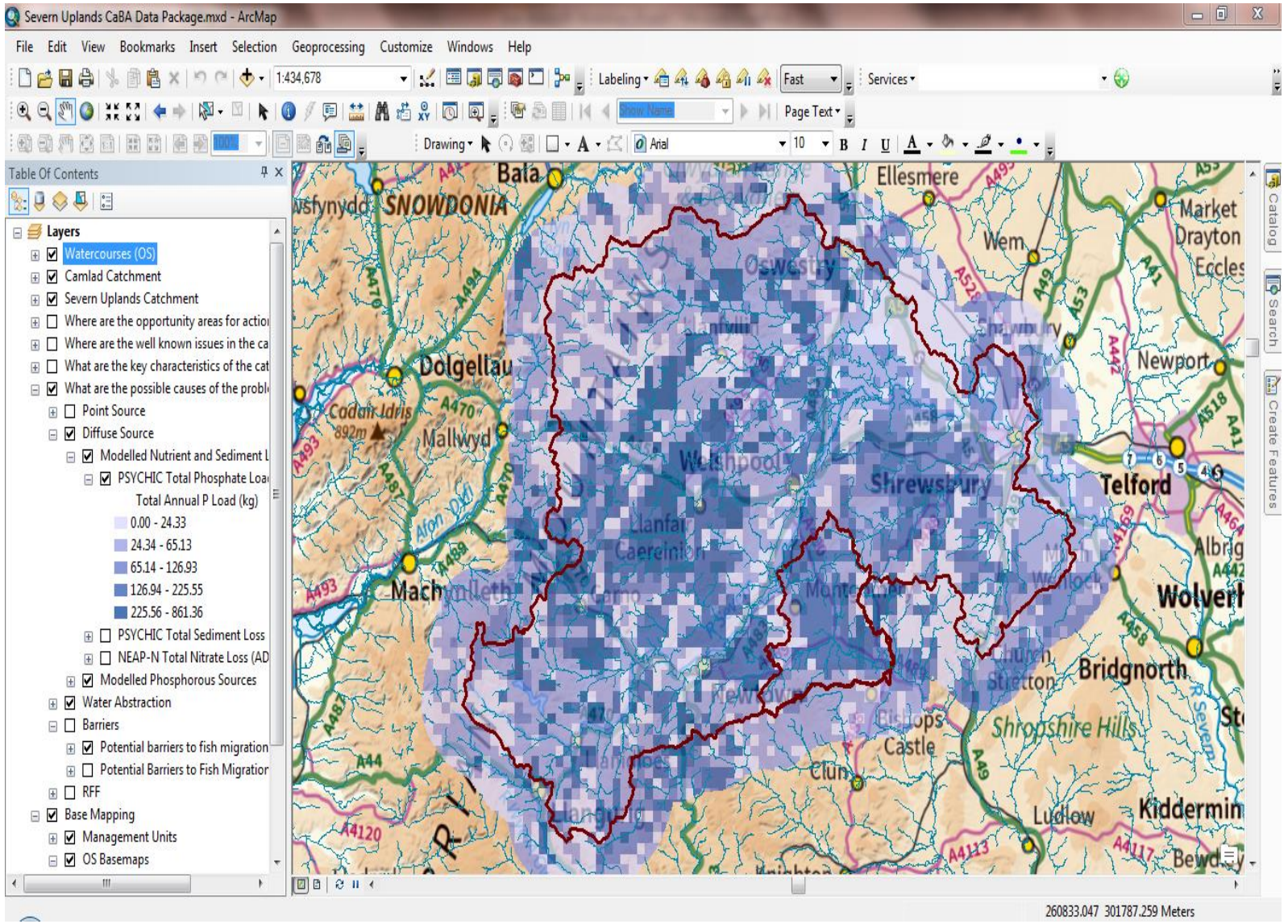


Catchment Based Approach

Catchment Based Approach

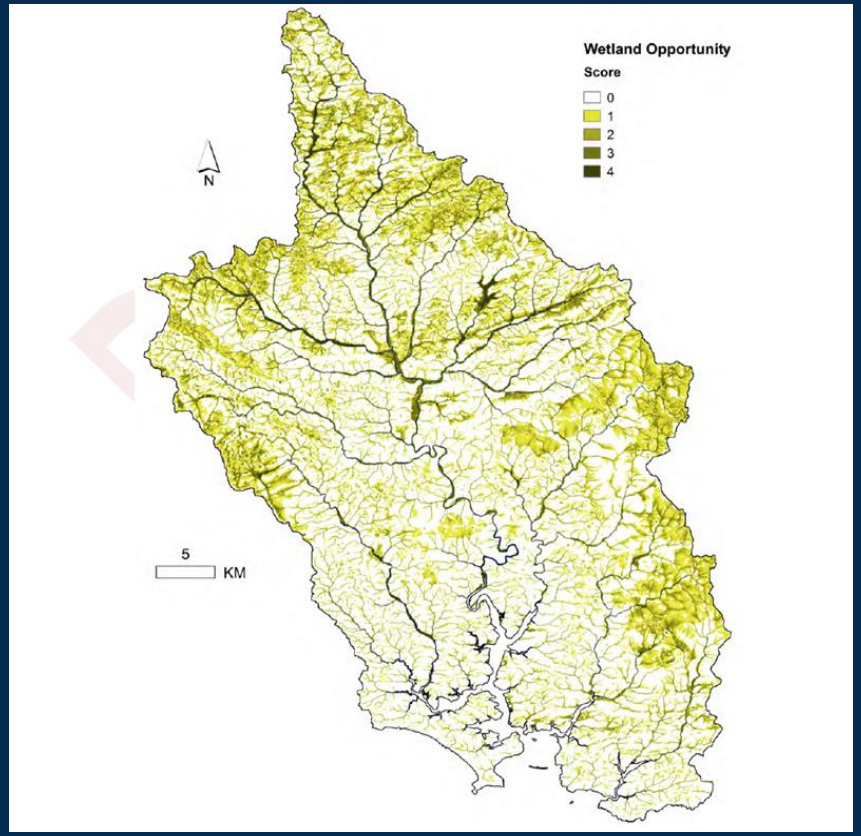
- Catalyst to bring a range of local stakeholders together
- Driving a more holistic and integrated approach
- Identify solutions to issues that are not easily addressed through direct regulation
- Co-delivery of action on the ground
- Multiple benefits realised through collaborative working
- Leveraging of funds from diverse sources

CaBA Data Package – 200 data layers



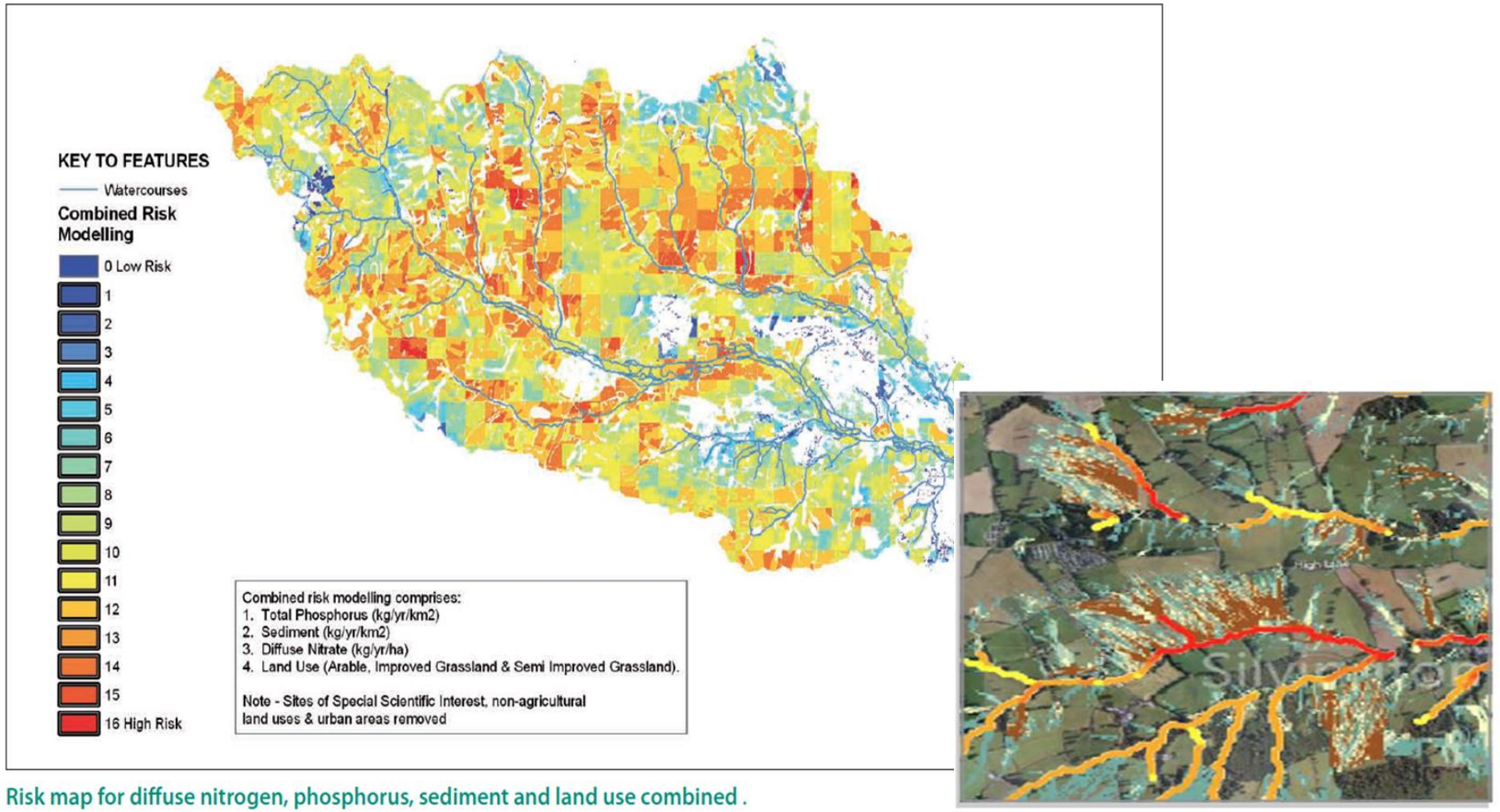
CaBA dataset provides for Opportunity Mapping and Targeting

e.g., Wetland creation/restoration



Catchment Based Approach

Data Package Modelling Outputs – Nutrient Risk



Risk map for diffuse nitrogen, phosphorus, sediment and land use combined .

Catchment Based Approach

Nutrient Neutrality through Mitigation

- Various approaches that can address excessive nutrients from several sources including agriculture, wastewater treatment plants, septic tanks and urban runoff

- Typically implement a ‘Nature-Based’ Solution such as wetlands, that offer other benefits (asides improved nutrient water quality) such as reduced flood risk, enhanced biodiversity and green-blue spaces that local communities can enjoy.

Wetland Treatment of Wastewater

Catchment Based Approach

Wetland Treatment of Wastewater

- Natural systems that absorb and store nutrients as wastewater flows through them, thereby reducing the load entering the river/receiving water. This ‘assimilation’ can remove 70%+ of nutrients.
- Can be constructed within the (water company) wastewater treatment works to provide further treatment and on farms to reduce nutrients in agricultural runoff
- Performance of these constructed wetlands is well quantified – enable ‘credits’ and ‘offsetting’
- https://www.wyeuskfoundation.org/nutrient-offsetting
- https://norfolkriverstrust.org/project/river-ingol-wetland-creation/

Land Conversion

- Conversion of lower grade agricultural land to e.g., woodland reduces nutrient loss
- Provides for additional benefits including carbon sequestration, biodiversity, recreation and flood risk reduction
- Data package provides for mapping of planting opportunities for multiple benefits
- https://theriverstrust.org/our-work/our-projects/woodlands-for-water

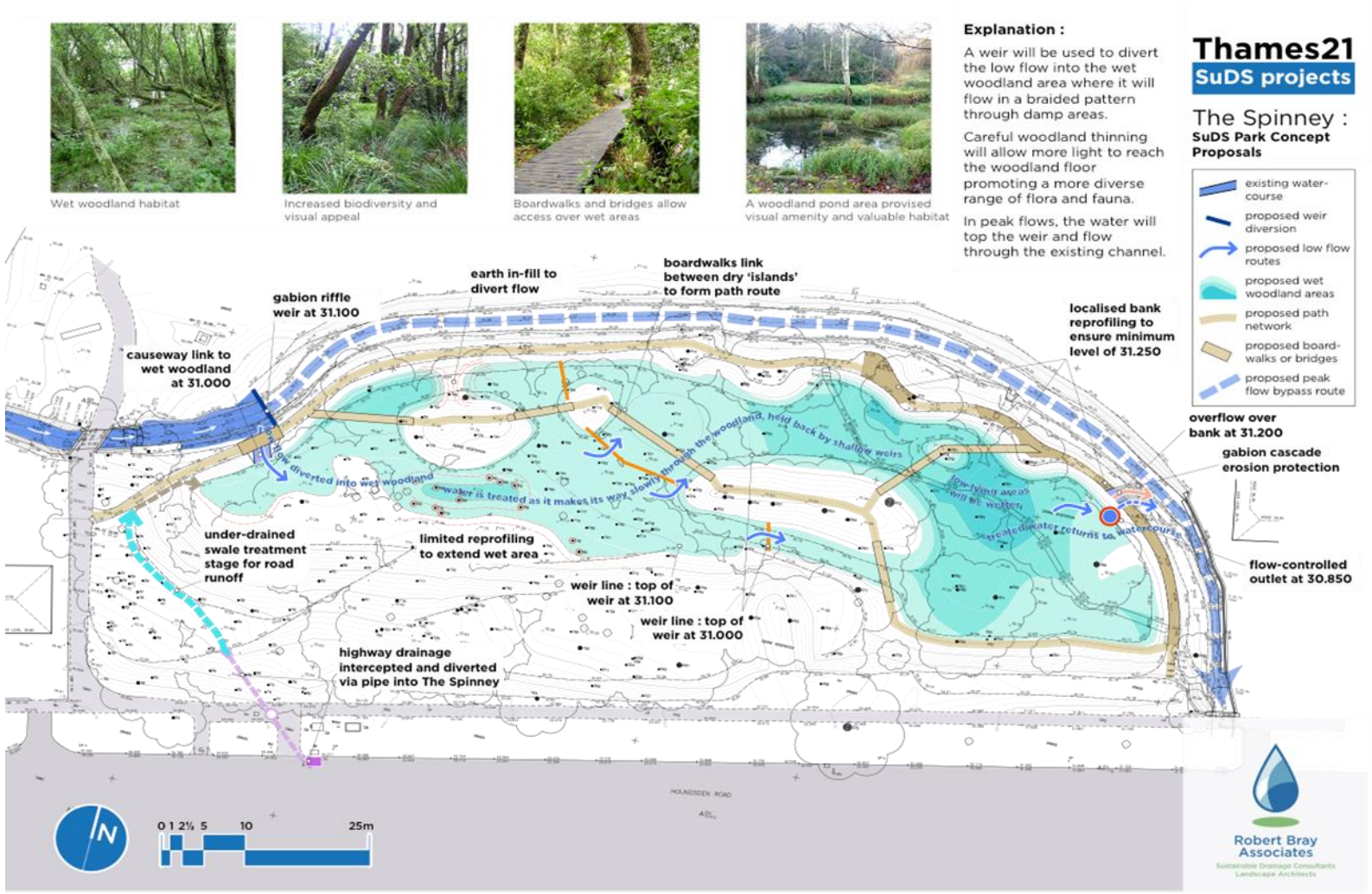
Urban Runoff – Constructed Wetlands and other SuDS

- Urban runoff c. 14.3 kg/ha/yr of N
- Typically implement a ‘Nature-Based’ Solution such as wetlands, that offer other benefits (asides improved water quality) such as reduced flood risk/reduced sewer flooding, enhanced biodiversity and green-blue spaces that local communities can enjoy.
- Other Sustainable Urban Drainage Solutions available that attenuate nutrients (reed beds, infiltration ditches, swales etc)

WORKING TOGETHER TO CONSERVE AND PROTECT ENGLISH RIVERS

WWF | The Rivers Trust | Coca-Cola Great Britain | Coca-Cola European Partners | Enfield Council | Thames21 | FoBP

Catchment Based Approach



Catchment Based Approach

Thanks

Questions Welcome

Catchment Based Approach

Chairing a Nutrient Management Board

Cllr Elissa Swinglehurst

Herefordshire Borough Council

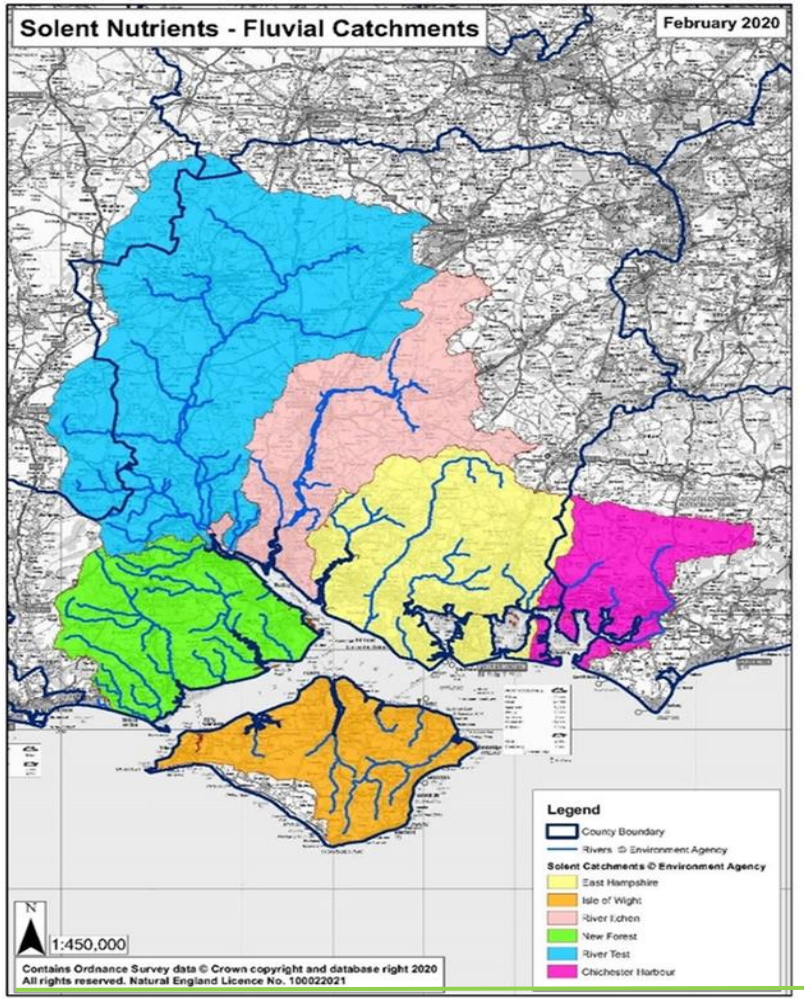
Responding to the need for nutrient neutrality in the Solent

Partnership for South Hampshire

Picture credit: Hazel Stanworth – Natural England

Working together for a better future for South Hampshire

Strategic Environmental Planning Officer



- Responses must be coordinated due to cross boundary implications
- A single point of contact for stakeholders
- Investigate, report on and deliver Local Authority interventions/processes to allow sustainable development to take place

Basingstoke and Deane

East Hampshire

Fareham

Havant

New Forest National Park

Southampton

Test Valley

Strategic Environmental Planning Officer (SEPO)

Chichester

Eastleigh

Gosport

New Forest

Portsmouth

South Downs National Park

Winchester

Partnership for South Hampshire

Working together for a better future for South Hampshire

Supply and Demand

- To provide evidence that there is sufficient mitigation to satisfy a 5-year supply of housing
- To provide evidence for local plan examinations regarding both HRA and deliverability of housing
- To provide stakeholders with a clear view of the supply and demand relationship and facilitate market confidence

Demand - Test Valley

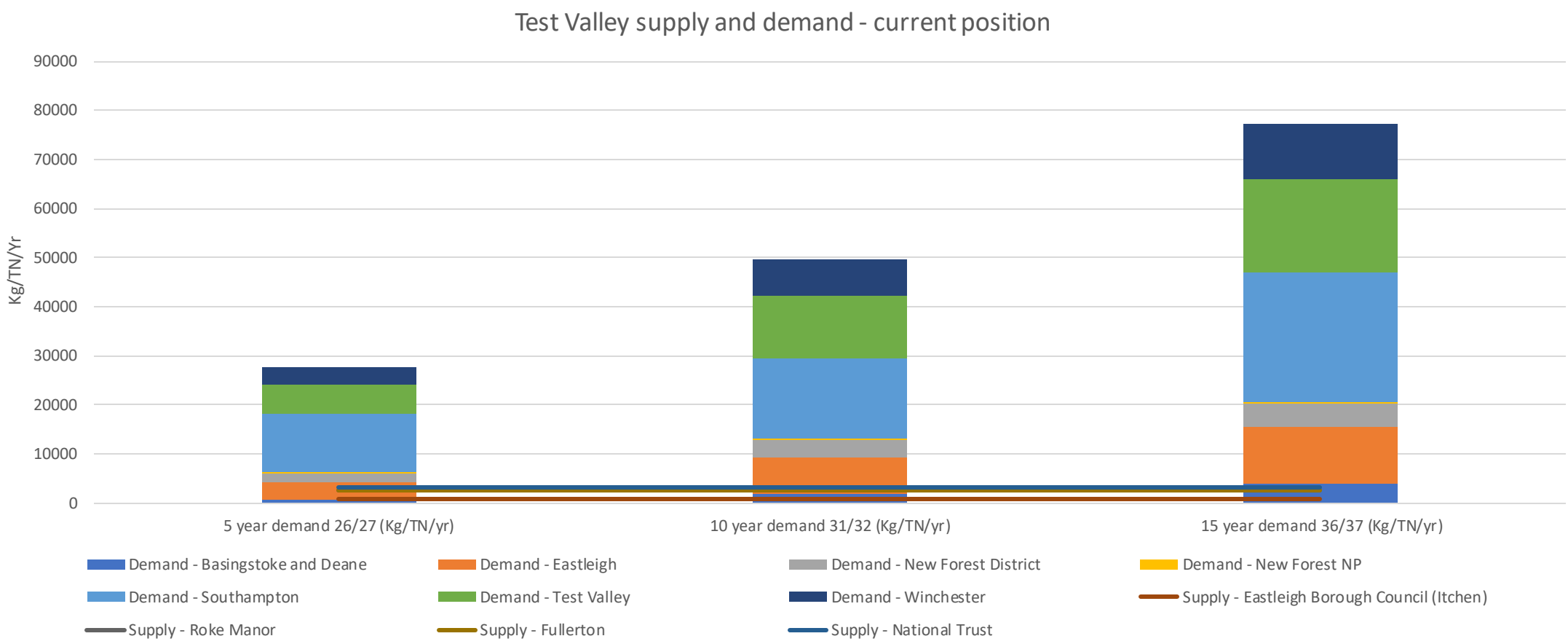
Test Valley			
	5 year demand 26/27 (Kg/TN/yr)	10 year demand 31/32 (Kg/TN/yr)	15 year demand 36/37 (Kg/TN/yr)
Demand - Basingstoke and Deane	604	1722	3840
Demand - East Hants	20	40	60
Demand - Eastleigh	3443	7493	11543
Demand - New Forest District	1816	3666	4787
Demand - New Forest NP	250	350	450
Demand - Southampton	12090	16305	26321
Demand - Test Valley	5998	12603	19095
Demand - Winchester	3391	7381	11371
	27612	49560	77467

Local Authority	Notes
Basingstoke and Deane	1.2 Kg per dwelling average
East Hants	0.8 Kg per dwelling average
Eastleigh	1.2 Kg per dwelling average
New Forest District	Full assessment made regarding likely permit limits for planned development
New Forest NP	2kg per dwelling average
Southampton	1.5kg per dwelling average
Test Valley	2.4kg per dwelling average
Winchester	1.2kg per dwelling average

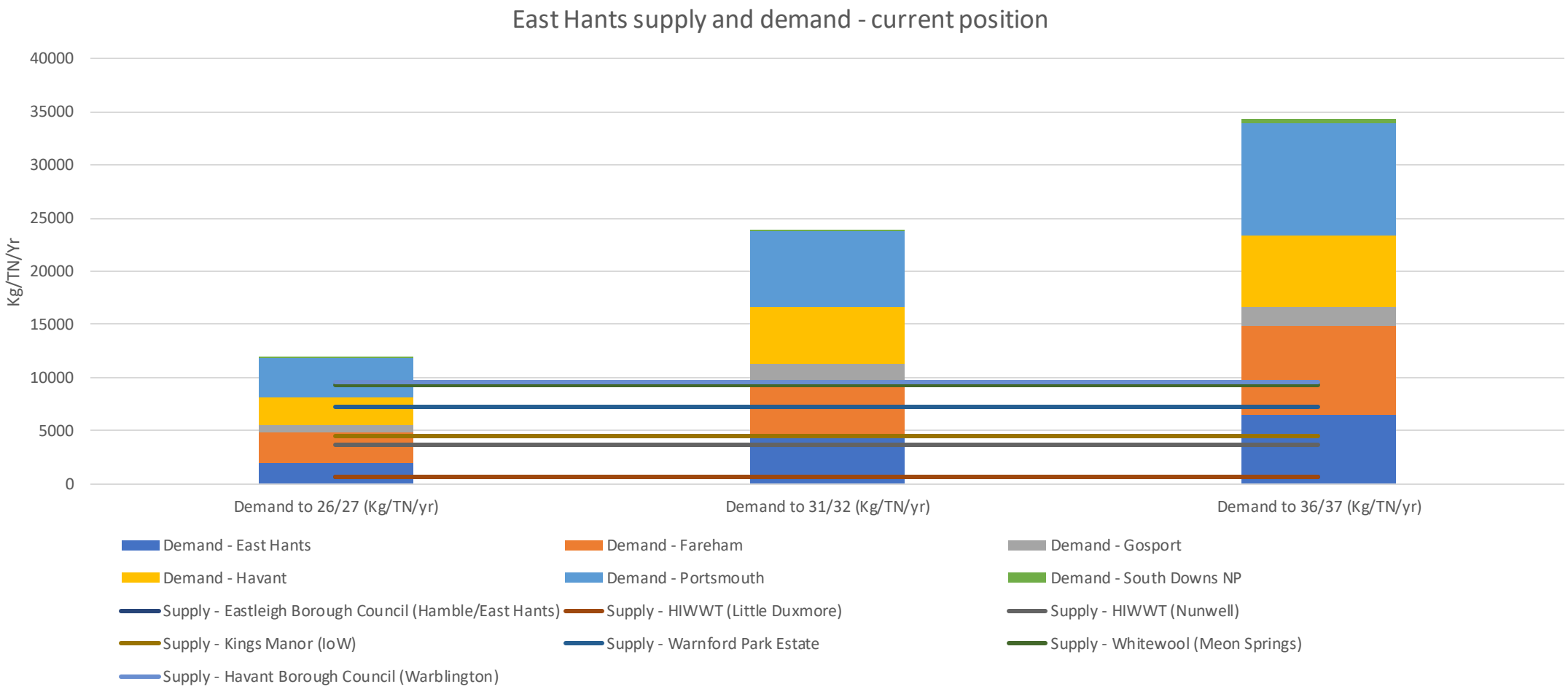
Supply

Mitigation Site Supply				
Site name	Total Credits	Credits remaining		
Eastleigh Borough Council (Itchen)	1810	846		
Eastleigh Borough Council (Hamble/East Hants)	1429	661		
HIWWT (Little Duxmore)	810	0		
HIWWT (Nunwell)	3000	3000		
Kings Manor (IoW)	800	800		
Roke Manor	2522	1723		
Warnford Park Estate	3022	2822		
Whitewool (Meon Springs)	2000	1937		
Havant Borough Council (Warblington)	785	339		
Fullerton	220	0		
National Trust	450	450		
	16848	12578	4270	Approx 25% used

Supply and Demand - Test Valley



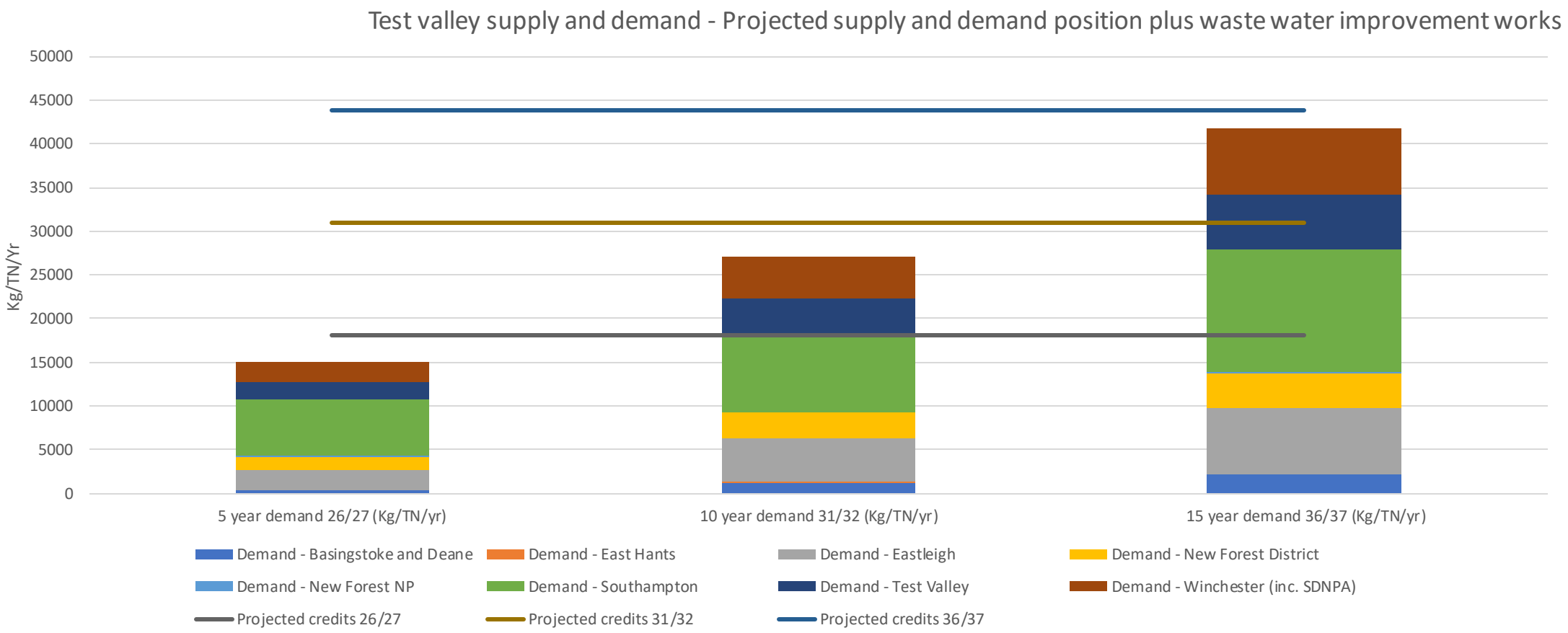
Supply and Demand – East Hants



Supply

- East Hants
- Total new supply of credits for 20/21 and 21/22 = 11846
- 11846 / 2 = an average of 5923 Kg/TN/Yr of new supply per year
- Test and Itchen
- Total new supply of credits for 20/21 and 21/22 = 5152
- 5152 / 2 = an average of 2576 Kg/TN/Yr of new supply per year

Projected Supply and Demand with Waste Water Treatment Work Improvements - Test Valley



Legal Framework

- Overarching S.106 agreements with mitigation providers, this system is endorsed by representatives of the development industry and is to the satisfaction of both LPAs and current mitigation providers whilst requiring no individual legal requirement within the application process. This approach may be conditional if covenant strength concerns need to be overcome
- Instrument to transfer enforcement powers is S.33 agreement
- Aims to standardise the process and produce conformity in approach between LPAs
- Where Local Authorities directly control credits the only legal framework required is to collect the funds

Where are we now?

- A December 2021 review of nutrient neutrality credits sold, from strategic mitigation providers, has shown that credits are now available in all catchments of the sub-region. The review has also shown that, supported by an effective legal framework, mitigation sites are actively selling credits to support planning applications and that this is allowing sustainable development to take place.
- 4270 credits have been sold to support planning applications.
- Approximately 2872 dwellings unlocked through strategic mitigation .
- The value of credits sold is in excess of £11m .
- Does not account for on-site, mitigation solutions.
- Does not account for developer led small scale off-site mitigation

Credit – Jamie Butler (Whitewool Springs)

Thanks and Further Information

Simon Kennedy – Strategic Environmental Planning Officer skennedy@fareham.gov.uk

[Nutrient Mitigation - Partnership for South Hampshire (push.gov.uk)]

Department for Environment Food & Rural Affairs

Long term strategic plan for returning sites to favourable condition status

Stephanie Firth

Elén Stråle

Forestry Commission England | NATURAL ENGLAND | Environment Agency

What are our commitments/targets?

- 25 Year Environment Plan - clean and plentiful water, 75% of protected sites to good condition
- Water Framework Directive - To achieve good ecological status by 2027
- Commitment to 30x30 - UN Pledge to protect 30% of land by 2030
- Proposed Environment Act targets:
  - Reducing phosphorus loading from treated wastewater by 80% by 2037
  - Reducing nitrogen, phosphorous and sediment from agriculture to the water environment by 40% by 2037
- Consultation on proposed targets open until 11th May https://consult.defra.gov.uk/natural-environment-policy/consultation-on-environmental-targets/

HM Government

A Green Future: Our 25 Year Plan to Improve the Environment

Changes to policy, regulation, monitoring and enforcement

- **Increasing enforcement of agricultural regulations:** Funding for 50 additional Environment Agency officers to provide a 10-fold increase and more targeted inspections
- **Improving guidance around existing regulations**: Updated guidance on the Farming Rules for Water was recently published to raise standards of nutrient pollution management
- **Expanding successful advice services:** Specialist, free, 1-2-1 environmental advice to farmers in England through the Catchment Sensitive Farming (CSF) partnership
- **Bolstering grant schemes for farmers:** The new **Farming Investment Fund** will provide grants for equipment and infrastructure to help farmers increase their productivity whilst reducing pollution. The Future Farming programme will reward farmers for sustainably managing their nutrients and reducing run off through the **Environmental Land Management Schemes**.
- **Strengthening monitoring requirements on water companies:** The Environment Act places increased requirements on water companies to monitor the impact of their assets on water quality.

Water company business planning

- **The water industry operates on 5 yearly cycles.** The current cycle (PR19) runs from 2020 to 2025 and will see water companies invest £2.5 billion in measures that reduce nutrient pollution.
- The next cycle (PR24) runs from 2025 to 2030 and planning for the delivery of activities during this period is already underway.
- To guide the water industry in planning their activities, Defra and the regulators clearly set out what water companies should focus on for each cycle. Defra recently published the Strategic Policy Statement to Ofwat which makes clear that we want water companies to go further in the next price review period to **"prioritise improvements to protected sites"**, focussing particularly on the need to **"address nutrient pollution".**
- The Environment Act has also created a new statutory duty on water companies to produce Drainage and Sewerage Management Plans over a minimum 25-year planning horizon. **This includes a requirement to assess the environmental impacts of the sewerage system and wastewater treatment works.**

Tackling nutrient pollution: Improving site condition

- To restore nature and set protected sites on a trajectory to recovery we need to address nutrient pollution. Our aim is to restore 75% of our one million hectares of terrestrial and freshwater protected sites to favourable condition by 2042.
- The Nature Recovery Green Paper consultation launched on 16 March and closes on 11 May 2022. Government proposals aim to create a more strategic approach to better support site recovery measures. Responses to the consultation are very welcome and can be accessed here.
- Protected Site Strategies, introduced in the Environment Act, aim to put sites on a pathway to recovery. A strategy may be developed for any European site, Site of Special Scientific Interest or Marine Conservation Zone.
- Natural England will launch the first five pilots later this spring. A number of the pilots will address nutrient pollution.

Protected Site Strategies – what are we doing?

Five design pilots from Spring 2022:

- **Cumbria Fens and Bogs** – Hydrology, local people, peat and trees (some Air Quality impacts)
- **The Humber** – Recreational disturbance initial focus -a multitude of Protected Sites designations and impacts on them.
- **The Peak District Wye Valley** – Water Quality and Air Quality from dairy farming. Interactions with supply chain companies
- **The Clun** – Local land managers and local people, cultural shifts to address water quality and siltation in ways that boost rural enterprise.
- **Sussex ancient woodlands** – Deer management and natural regeneration of trees in a mixed landscape.

Protected Site Strategies - an opportunity for collaboration

What opportunities will Protected Site Strategies bring farmers, developers and other businesses?

Landowners, developers, local planning authorities and farm businesses can play a key role in addressing the multiple and complex pressures faced by protected sites, whether on site pressures such as overgrazing or offsite pressures such as diffuse pollution. The Environment Act puts a duty on Natural England to consult a wide range of stakeholders when creating or amending Protected Site Strategies to resolve these issues. This may include working with farmers, local planning authorities, developers and other businesses. Protected Site Strategies aim to bring together all key stakeholders to develop workable solutions to the pressures affecting sites in ways that deliver for local businesses and nature.

What is the potential value of Protected Site Strategies to businesses?

Protected Site Strategies will entail developing broad range of collaborative commitments to address adverse impacts on sites and to ensure opportunities for green growth. Natural England aims to provide private businesses with opportunities for green investment and is working closely with green finance teams to ensure that these strategies may be co-designed effectively with business. As these strategies are developed, Natural England aims to work with businesses to develop innovative, technological solutions to the challenges facing sites, which may offer further opportunities for private sector involvement in the development of these strategies.

What implementation activity has taken place to date and where can I find more information?

The new Protected Site Strategies will build on other successful collaborative approaches that have shown evidence of delivering real benefits to nature and business, such as the award-winning South Humber Gateway mitigation scheme.

Diffuse Water Pollution Plans and Nutrient Management Plans

Kathryn McKendrick-Smith, Natural England