


# NCA and ESA and the water sector

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# NCA and ESA in the water sector

## Agenda or Challenge

- United Utilities and the water sector
- What has natural capital ever done for us?
- Individual action to collaborative research
- Where are we now?
- What next



Natural capital accounting ensures that natural assets that directly and indirectly produce value or benefits to people, are properly accounted for and reflected in decision making.

The State of Natural Capital: Natural Capital Committee

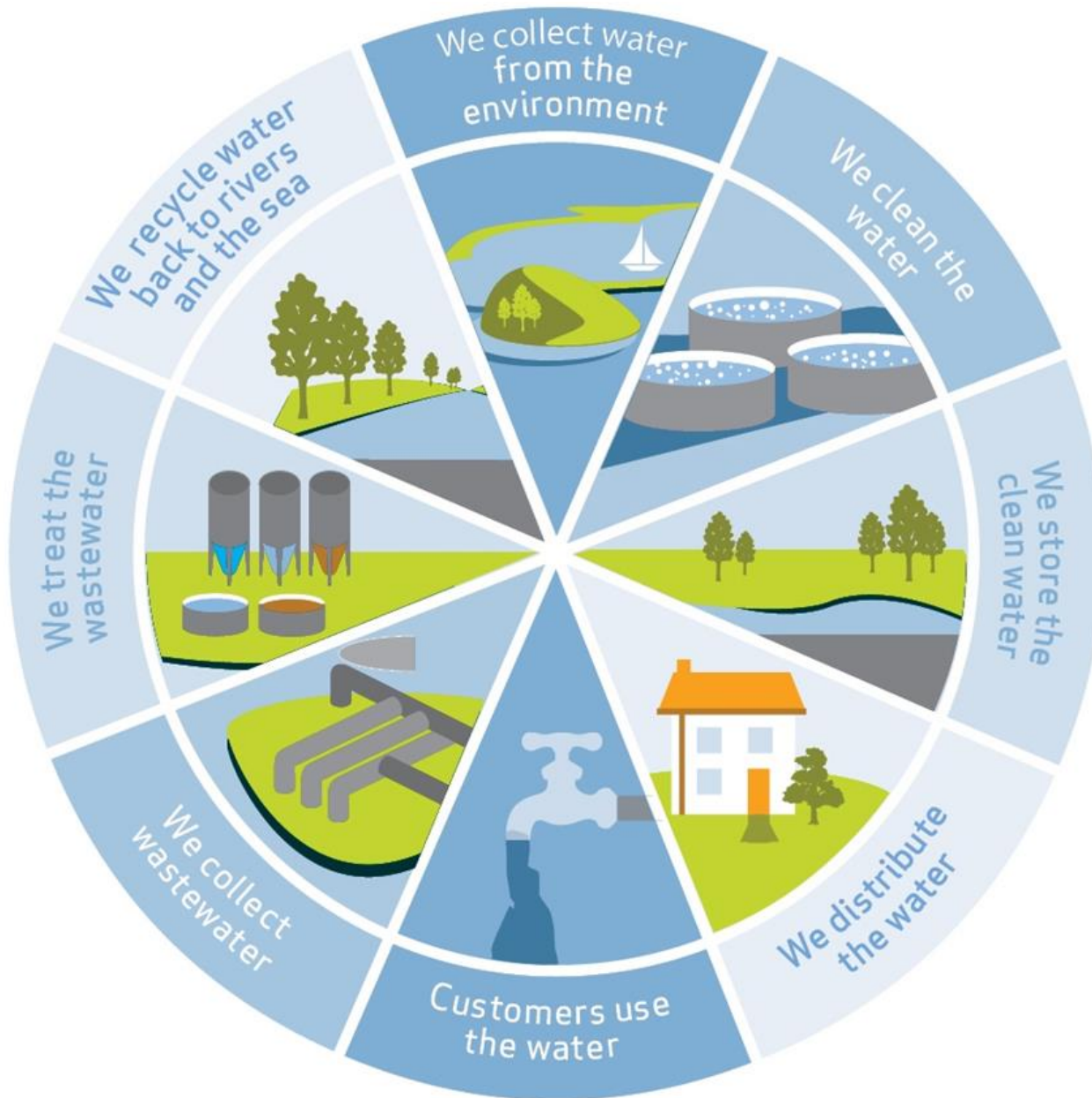
Ecosystem Services Assessment is an assessment of the condition of ecosystems and the ability of that ecosystem to deliver relevant services

# United Utilities and the water sector



# What has natural capital ever done for us?

And what do we do for it?



# Specific example – or everyone's favourite

Inappropriate Management



Loss of Natural Capital  
Loss of Ecosystem Services

Soil Loss

Fresh water  
Climate Regulation  
Flood Regulation  
Water purification  
Recreation  
Education



## Costs to Water Company:

Greater treatment  
Energy use  
Transportation  
New infrastructure  
Public relations



Water discolouration  
Increase in flows  
Flooding  
Biodiversity loss  
Reduction in visitors

# Specific example – or everyone's favourite

More  
Appropriate  
Management



Maintenance /  
Reduction in loss of  
Natural Capital and  
Ecosystem Services

Reduced soil loss

Increased contribution to:  
Fresh Water Supply  
Climate Regulation  
Flood Regulation  
Water purification  
Recreational Activities  
Education Opportunities



Understanding the loss of  
Natural Capital and impact on  
Ecosystem Services allows for  
better decisions

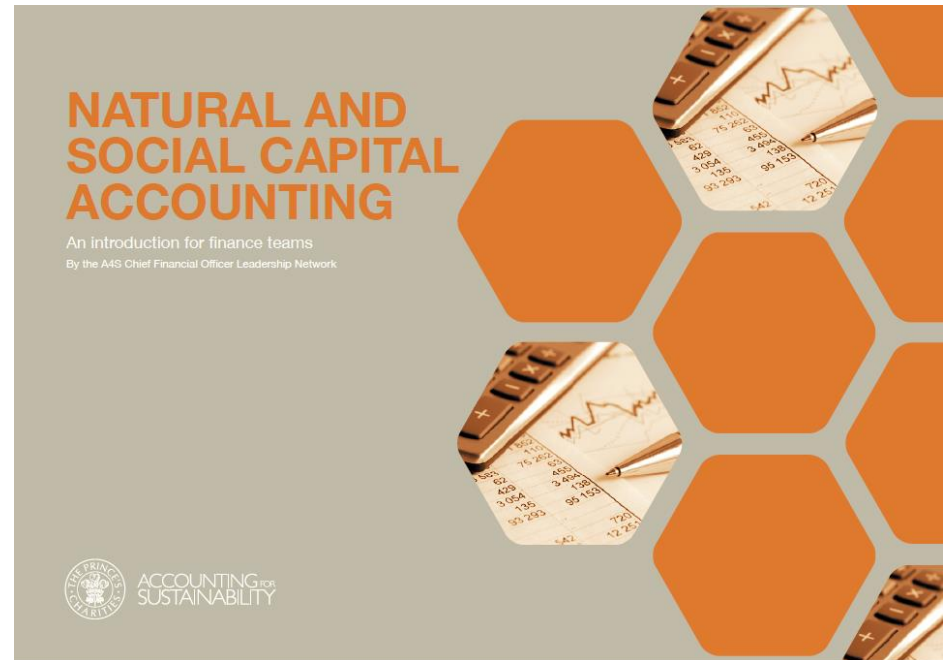
Habitat Restoration  
Education  
Increased payments to  
tenants  
Footpath restoration

Savings to Water  
Company?

Yes – though  
there are still  
costs

# Individual action to collaborative research

- Several companies have dabbled in NCA & ESA
- Accounting for Sustainability
- Natural Capital Committee
- Natural Capital Coalition
- United Kingdom Water Industry Research





# UKWIR project objectives

Undertake a review of current NCA and ESA initiatives that are relevant, or could benefit the water industry

Describe the potential benefits and implications of NCA and/or ESA for water companies

Identify opportunities, barriers and risks for integration of NCA and ESA into both the regulatory framework and water company planning and decision making

Develop proposals for research to fill knowledge gaps

# So where are we?

## What did the project do?

Project involved the completion of the following tasks:

- Project team technical workshop
- Questionnaire survey
- Literature review
- Industry workshop



*In association with*



# So where are we?

## Findings from reviews, workshops and interviews

**Understanding:**  
General not specific  
Limited to specialist teams  
Relatively recent  
More evolved in GHGs

**Benefits:**  
Risk management  
Better CBA = better decisions  
Opportunities for collaboration  
Comprehensive assessments

**Barriers:**  
Complex and evolving ideas  
Difficult to demonstrate direct  
impact on some capital  
Unintended bias  
No standards

**Gaps:**  
Absence of clear business case  
Costs and risks of doing it  
Regulatory leadership  
Data  
Impacts and assets outside of  
management control

# Recommendations: Proposed Research Agenda

Flexible Framework

Guidance Requirements

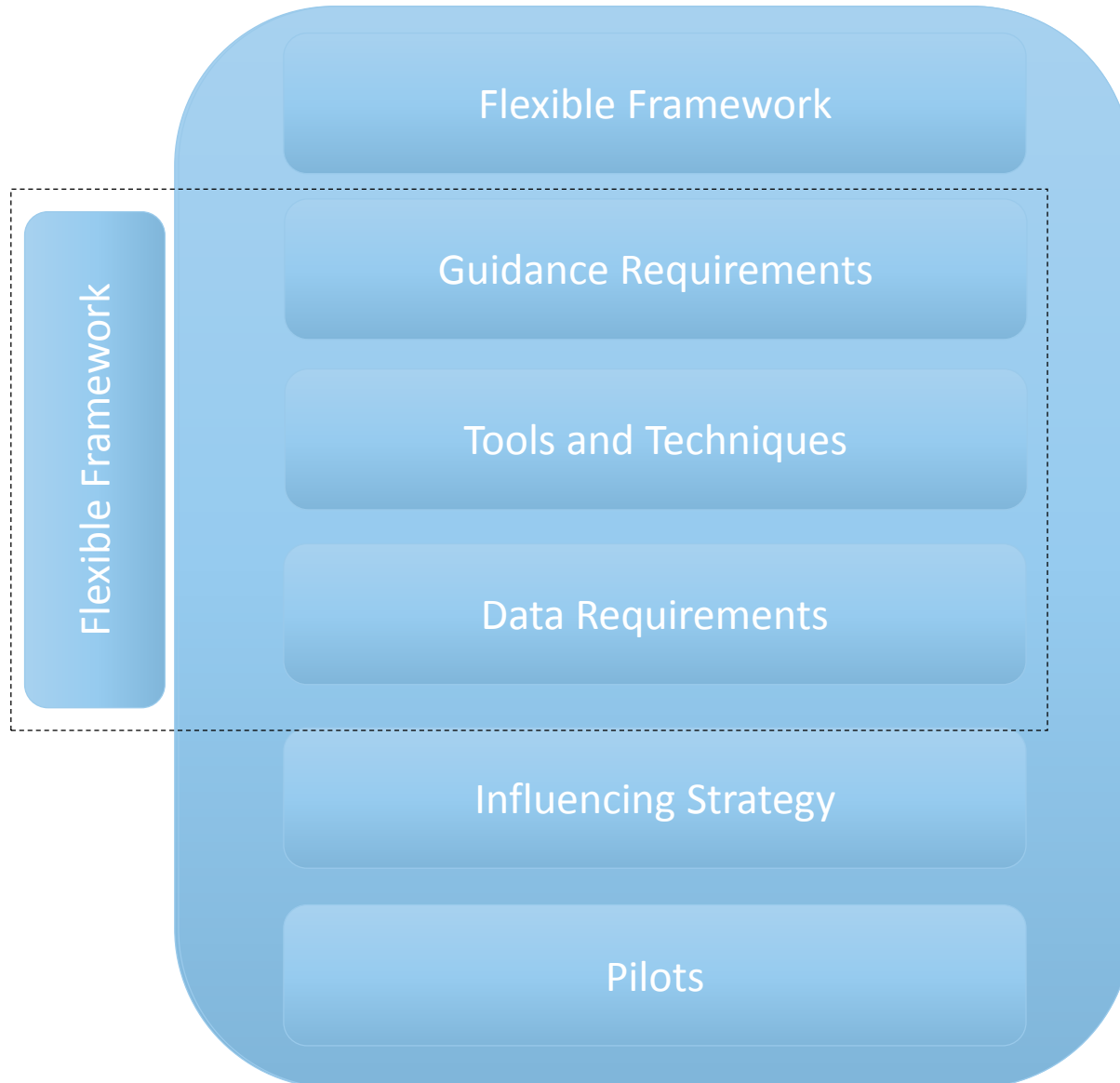
Tools and Techniques

Data Requirements

Influencing Strategy

Pilots

# Recommendations: Proposed Research Agenda



# Tools and Techniques

## Applying the NCC Protocol to various water company activities

Stage	FRAME Why?		SCOPE What?		MEASURE AND VALUE How?			APPLY So what?		
Step	01 Get started	02 Define the objective	03 Scope the assessment	04 Determine the impacts and/or dependencies	05 Prepare to measure and value	06 Measure or estimate impacts and/or dependencies	07 Measure or estimate changes in the state and trends of natural capital	08 Value impacts and/or dependencies	09 Interpret and use the results	10 Embed
Questions this will answer	How is natural capital relevant to your business?	What is the objective of your assessment?	What scope of analysis is appropriate for your objective?	Which impacts and/or dependencies are most relevant?	What do you need to consider before you start to measure and value?	How do you measure or estimate your impact drivers and/or dependencies?	How do you measure or estimate the changes in the state and trends of natural capital related to your business impacts and/or dependencies?	What is the value of your natural capital impacts and/or dependencies?	How can you interpret, validate, verify and apply the assessment and the results?	Should you continue the use of natural capital assessments in your business and if so, how?

PRINCIPLES: Relevance, Rigor, Replicability, Consistency

# Data Requirements

Some example data sets that might be required include

project costs

species records

CBA of projects

willingness to pay data

land cover data



historic value of resources

soil maps

E+S costs baseline data (e.g. river flow)

projected capital expenditure

# Influencing Strategy and pilots





# So What?

## And what happens next?

- UK water companies are all at slightly different places with NCA & ESA
- The UKWIR research has given some indication of what gaps require filling
- The research framework provides the sector with possible solutions
- Individual action or coordination response

**Thank you**

