ARK Annual General Meeting 2014
Agenda

Monday 24 November, 7.00 pm
Assembly Room, Marlborough Town Hall

Chairman's welcome	Geoffrey Findlay (Chairman, ARK)
Review of the year	Charlotte Hitchmough (Director, ARK)
Taking less water from the Kennet: a new pipeline to supply Swindon	Richard Aylard (External Affairs & Sustainability Director, Thames Water)
Only rain down the drain: where does waste water go?	Graham Osborn (Environmental Protection, Thames Water)
Eels in the Kennet	Andrew Kerr (Sustainable Eel Group)
Riverfly monitoring	Harry Forbes (ARK)
Oxford University drought research project	Catharina Landstrom (University of Oxford)
Formal Business	Geoffrey Findlay
Apologies	
Minutes of 2013 AGM	
Treasurer's Report	
Election of Honorary Officers	All
Prize giving	Geoffrey Findlay
Questions	All

Refreshments

We hope you will stay to enjoy a glass of wine with us and take the opportunity to talk to the committee and our guests

Take part in the Save our Waters consultation: go to http://saveourwaters.org.uk

Please buy a raffle ticket for half a lamb

ACTION FOR THE RIVER KENNET

Review of 2014

Abstraction will be reduced from 2016 onwards...

People in Marlborough are using less water

Action for the River Kennet

There is a new section of river for people to enjoy

Fish can swim more freely up and down the river thanks to…

Two new fish passes,

One set of baffles …

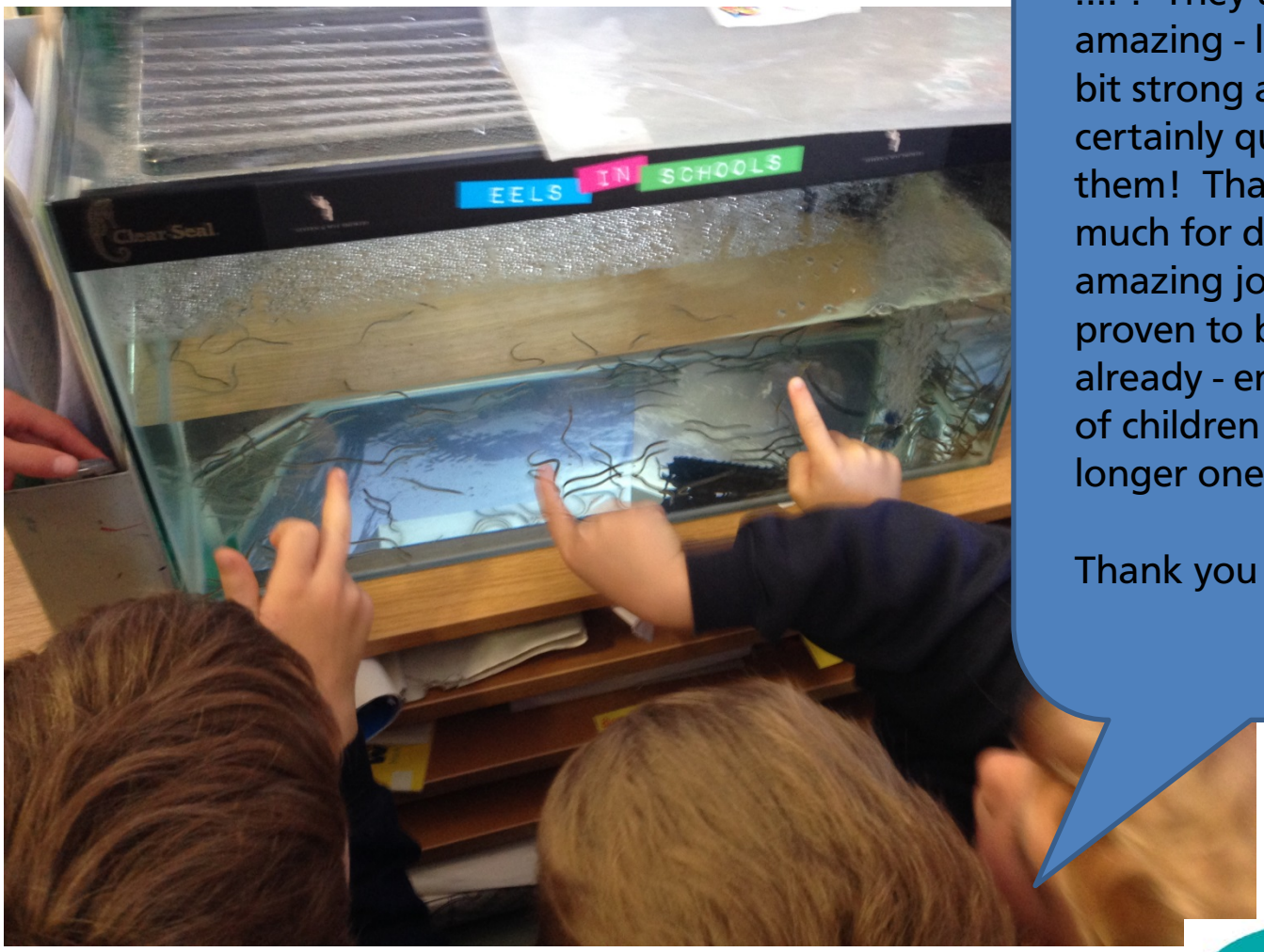
.... and a weir removal

We have improved or restored over two kilometres of river habitat

Our riverfly team is bigger than ever…

…and we are building a new data storage system so we can make best use of all the information you collect.

We have brought a new project to schools...



I think I may be in love …. ! They are quite amazing - love may be a bit strong actually but I certainly quite like them! Thank you so much for doing your amazing job - they have proven to be a total hit already - endless queues of children and even longer ones of adults!

Thank you

Schools – Trout in School

Action for the River Kennet

Save £85 and Protect Our Trout

Children at local schools have been raising baby trout. In April they were released into the River Kennet. To keep the river flowing and our trout thriving it's important that we all use water wisely.

We are offering **FREE** water saving makeovers for your home. By using less water the average family can save £85 a year on water and energy costs: good for you, good for your river and good for our trout.

To book call: 0800 358 6665 and quote 'Care for the Kennet'

As summer approaches

We are teaching students about about keeping the river clean...

as well as the wonders of chalk stream and using water wisely.

A clear solution for farmers

CATCHMENT SENSITIVE FARMING

More farmers than ever have taken advantage of the 'capital grant scheme', which helps to fund projects that reduce pollution to the river.

ark

Action for the River Kennet

More muddy walkers!

Stonebridge Wild River Reserve

Action for the River Kennet


RIVER KENNET

River Kennet Low Flow Alleviation
Save Water Swindon
Care for the Kennet
Community projects

November 2014

Richard Aylard
External Affairs and Sustainability Director

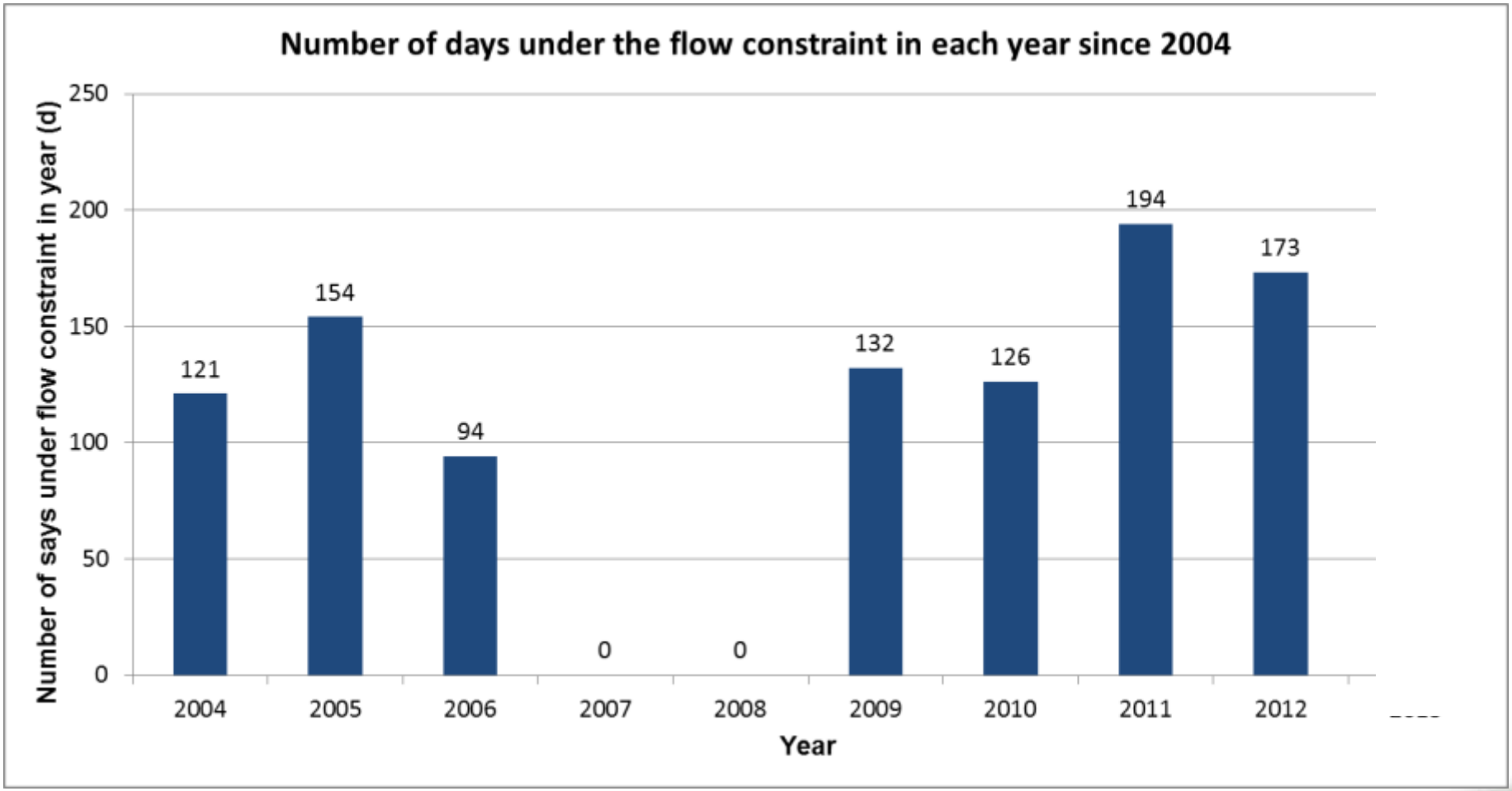
Thames Water

River Kennet Low Flow Alleviation

Axford Licence Reduction

- Current Licence
  - 13.1 million litres per day peak
  - 10 million litres per day average
- Licence from 1st April 2017
  - 13.1 million litres per day peak
  - 9.3 million litres per day average
  - When flow in the River Kennet is less than 100 Ml/d
    - 6 million litres per day peak & average
    - maximum of 3 million litres per day to leave catchment

Axford Flow Constraint

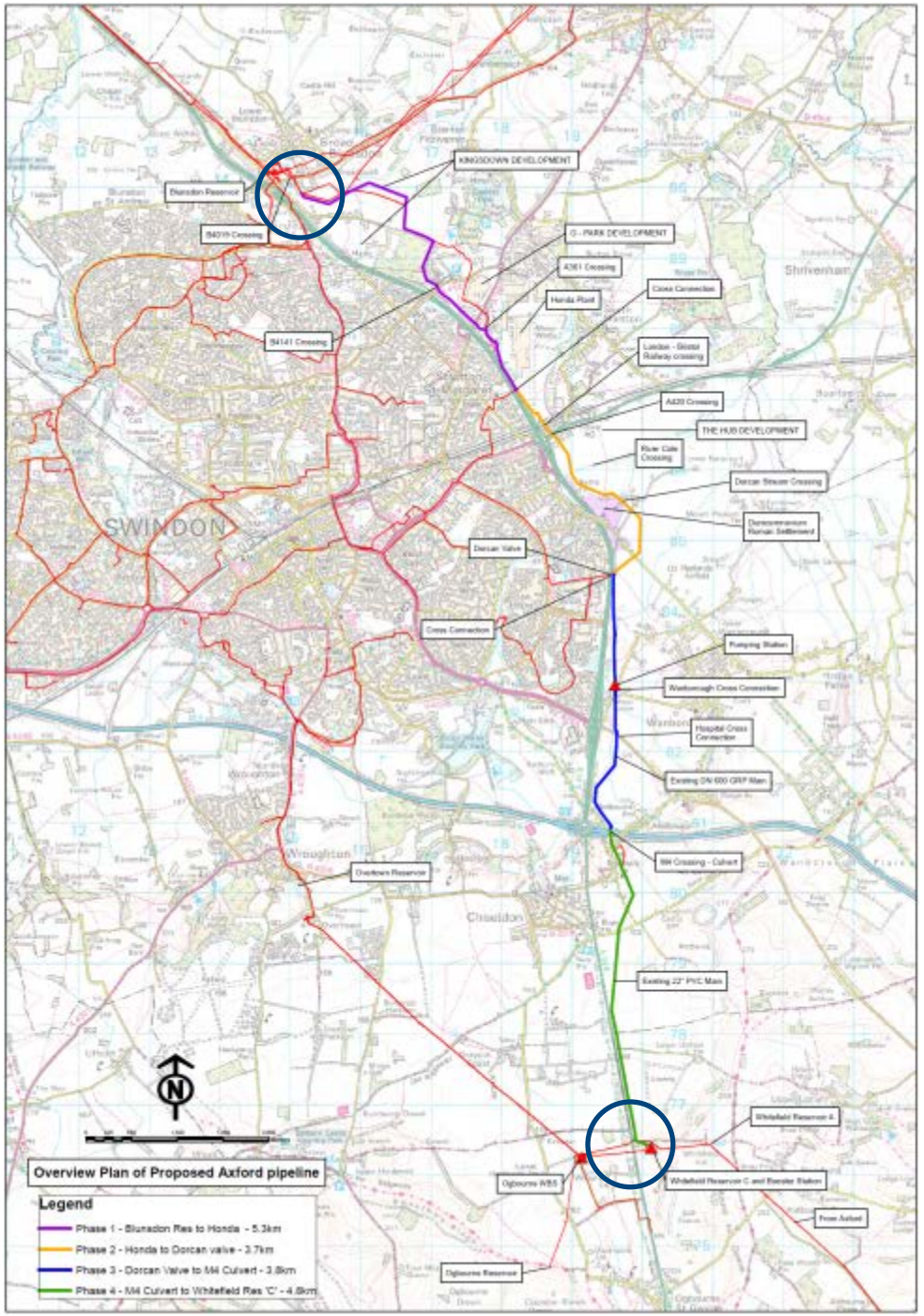


Ogbourne Licence Reduction

- Current Licence
  - 13.6 million litres per day peak
  - 8.1 million litres per day average
- Licence from 1st April 2017
  - Zero

So where will the water come from?

- Water from Farmoor reservoir, near Oxford, fed from River Thames
- New 18 Km pipeline from North to South Swindon, including new pumping station
- Cost - £25m
- Detailed design underway
- Environmental Impact Assessment screening document published
- Construction due to start July 2015
- Completion expected end 2016



Pipeline Route

- 18km Pipeline
- 600/500mm diameter
- Avoids areas of ecological / environmental / archaeological importance
- Extensive discussion with landowners and developers
- Directional Drilling under watercourses and ancient hedgerows
- Tunnel under the Bristol London railway
- Crosses under M4 at Junction 15

Save Water Swindon

Save Water Swindon

Save Water Swindon started as a partnership project with TW, WWF & Waterwise in 2010, and since then Thames Water have continued activities in Swindon

Target

- **1 million litres of water saving by end of 2014.**

Save Water Swindon

Water Saving Install & Requests

Home visits (water saving installs)

- A total of **3,269 home installs** carried out in Swindon
- **11,919** water saving devices installed

Products requested (self installs)

- **20,706** households have requested water saving products
- **64,606** water saving devices requested

	Water Saving – logger data (per household)
Home visit	48.5 l/day
Self installation	41.1 l/day

Save Water Swindon

Summary of water savings – Provisional Results

		Total Water Savings Achieved (Ml/d)	Comments
Assumed & Measured Water Savings	**Domestic Water Saving Products/Freebies**		
	Weff Home Installs (Climate Energy)	0.16	3269 installs in swindon (assume 48 litres per property as per logger analysis (see table at bottom of this page) as hard to get specific product details back to 2010). NOTE: if we used Ofwat assumed savings we would probably achieve even higher Ml/d saving from installs.
	Product Requests (Self-installs)	0.84	A total of 191,867 products (including water saving products, leaflets & stickers) have been requested in Swindon and a total of 64,606 water saving products (showerheads, CDDs, Tap inserts etc) have been self requested. 20,706 Households have been engaged by self installs/requests (equivilent of 40.5 l/hh/d saving based on Ofwat assumed savings- this is VERY close to loggered meausred saving of 41.l l/hh/day).
	Non-household		
	AMR	0.0663	Crematorium = 0.02 Ml/d saving Community Centre = 0.0004 Ml/d saving Farm Estate = 0.046 Ml/d saving
	Ripple Effect	0.0009	Total = 3[illegible]ear = 874 litres/day
	Factory	0.42	Re[illegible]ball valve in Dec 2010 (reduced nightime usage by 0.42 Ml/d)
Behaviour Change	Schools	0.080	[illegible]hools programme in Swindon - assumed behaviour savings (Medium engagement) as [illegible] UKWIR reporting
	Events	0.006	Roadshow Events in Swindon - assumed behaviour savings as per UKWIR reporting
	Other	0.029	Community Speaker Programme Talks (e.g. Earth Summit in Coleshill with Swindon Schools)- assumed behaviour savings as per UKWIR reporting
	TOTAL	**1.598**	Ml/d

Target Achieved!

Care for the Kennet (C4K)

Care for the Kennet (C4K)

A community led, award winning project in partnership with ARK

2011 - date

- **Free water saving installs**
  - offered to residents of Marlborough and surrounding villages - nearly 500 installs to date.
- **ARK Schools project** –
  - linking water use at home back to the local environment and rivers.
  - TW funded Metering, Audit and retrofit of 4 schools
- **Save Water September 2014**
  - Door knocking campaign (120 installs carried out) in Marlborough
  - 3,000,000 litres/year saved
- **'Ark-tober'** (October 2014)
  - ARK raising awareness about wasted water from leaky toilets
  - Free leaky loo stickers provided by TW
- **Newbury Show** - Joint ARK & TW stand

Care for the Kennet (C4K) next steps

Future water efficiency work with ARK

- **Free water efficiency home installs**
  - Continued in the upper Kennet (Marlborough & Hungerford)
  - Extend to lower Kennet next year
- **School project**
  - Support ARK to deliver in lower Kennet (Reading & Newbury)
- **Farms project**
  - Free audit and water saving advice for 5 farms in the Kennet Valley.

TW and ARK working on community projects

- **Durnford Mill (approved)**
  - 1 km of habitat improvement
  - Community events with Savernake Flyfishers
  - Extend ‘Yellow Fish’ campaign

- **Extension to Fobney Island (under consideration)**
  - Educational resource
  - Angling Academy
  - Fish rearing facility
  - New moorings

Pipeline Corridor Fly Through


Thames
Water

Only rain down the drain:

Where does waste water go?

24th November 2014

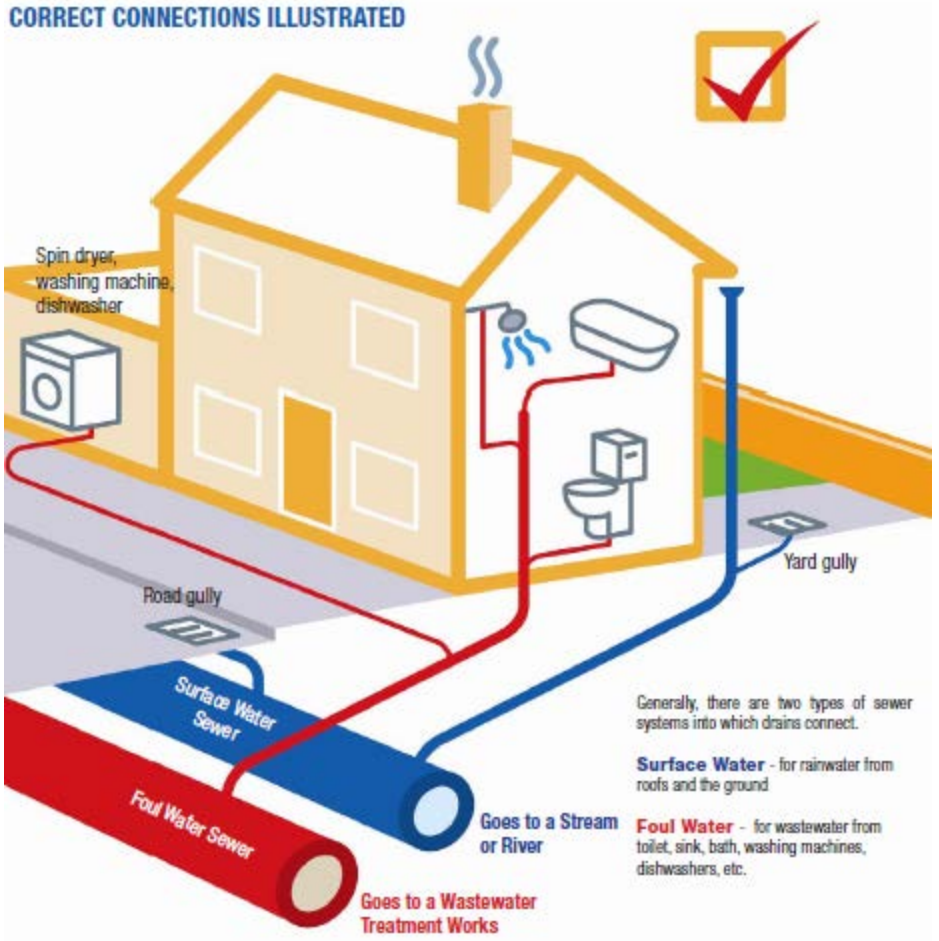
Graham Osborn
Environmental Protection Technologist

Thames Water

The separate systems

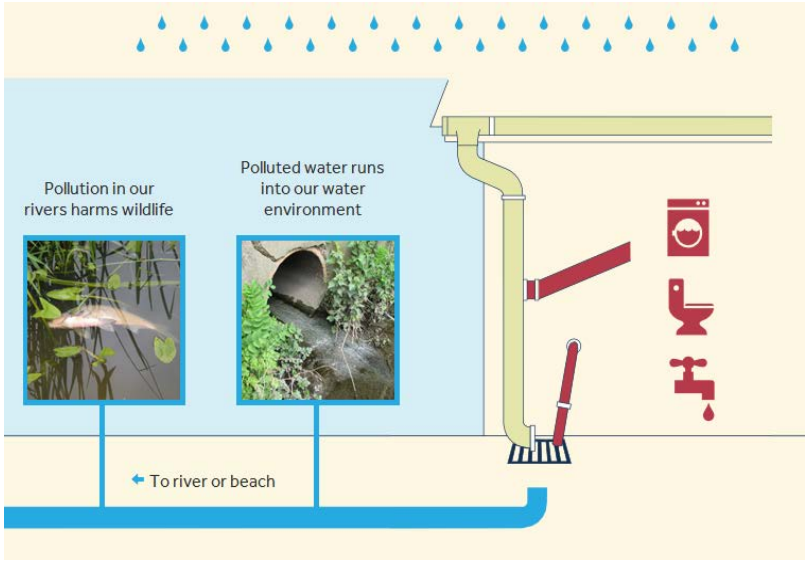
If a foul drainage pipe is not installed correctly:

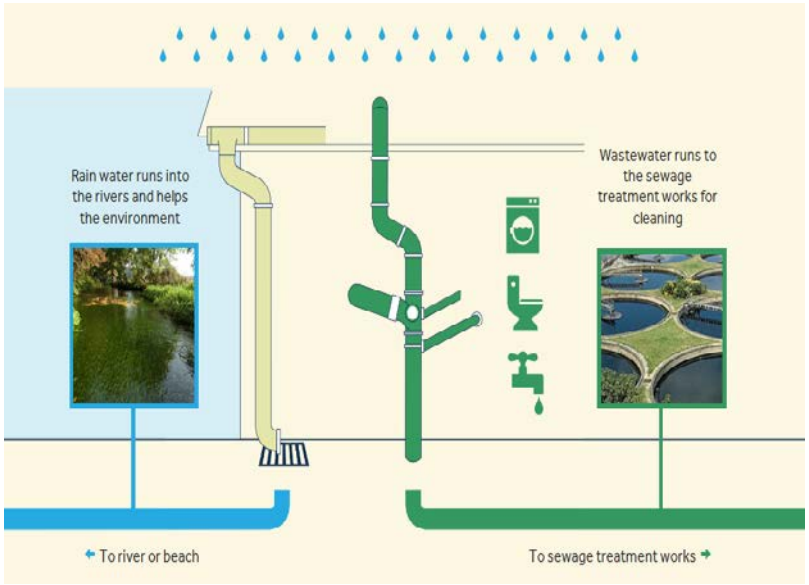
- Bad smells can enter your building
- Blockages and waste may not be cleared
- You will be polluting the environment



Misconnections

- One of the most significant causes of pollution to our waterways
- Approximately 60,000 properties misconnected in Thames Waters catchment





- 1.8 Olympic-sized swimming pools of sewage every day
- Nationally, a town the size of Swindon

Polluted Outfall Examples

They’re not always big pipes…

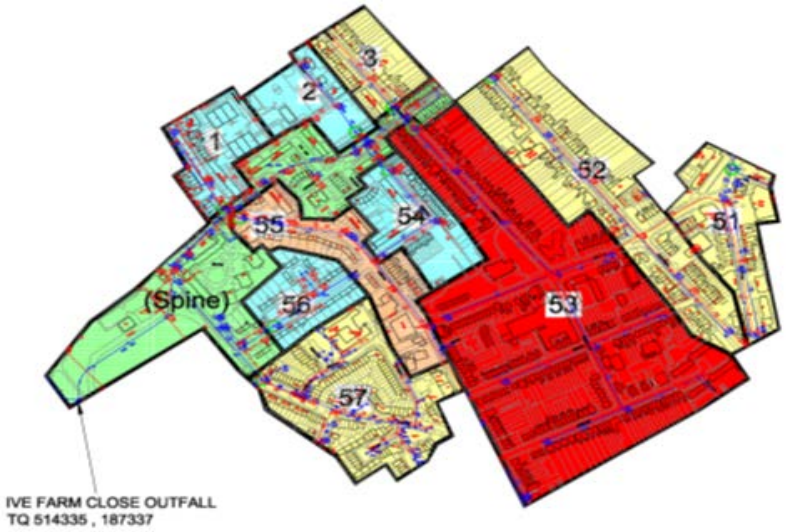
Misconnection Examples

Pollution tracing process

- Prioritise severity of pollution across catchment depending on size

- Identify misconnection problem by

  – Caging
  – Narrowing down
  – Property surveys
  – CCTV



Misconnection Strategy Group

- Approved Plumber Scheme
- Awareness campaigns
- Good Practice Guide reviewed
- White Good Manufacturers/Suppliers
- Flash cards
- Campaign Launch

What Can You Do?

For Pollution Issues:

Contact the Environment Agency

- **0800 80 70 60**

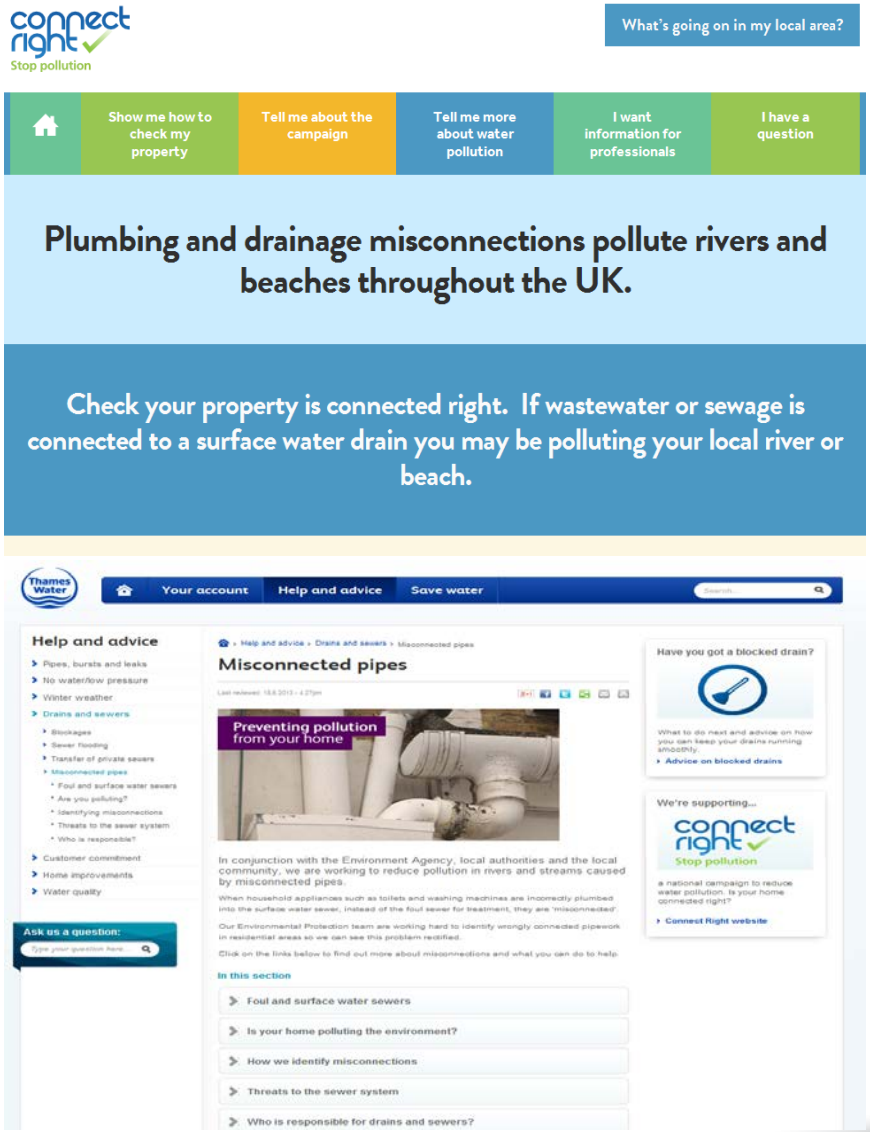
Contact Thames Water

- **0800 316 98 00**

For More Information on Misconnections, visit:

www.connectright.org.uk

www.thameswater.co.uk



Questions?

A brief Introduction on Eel Recovery for ARK

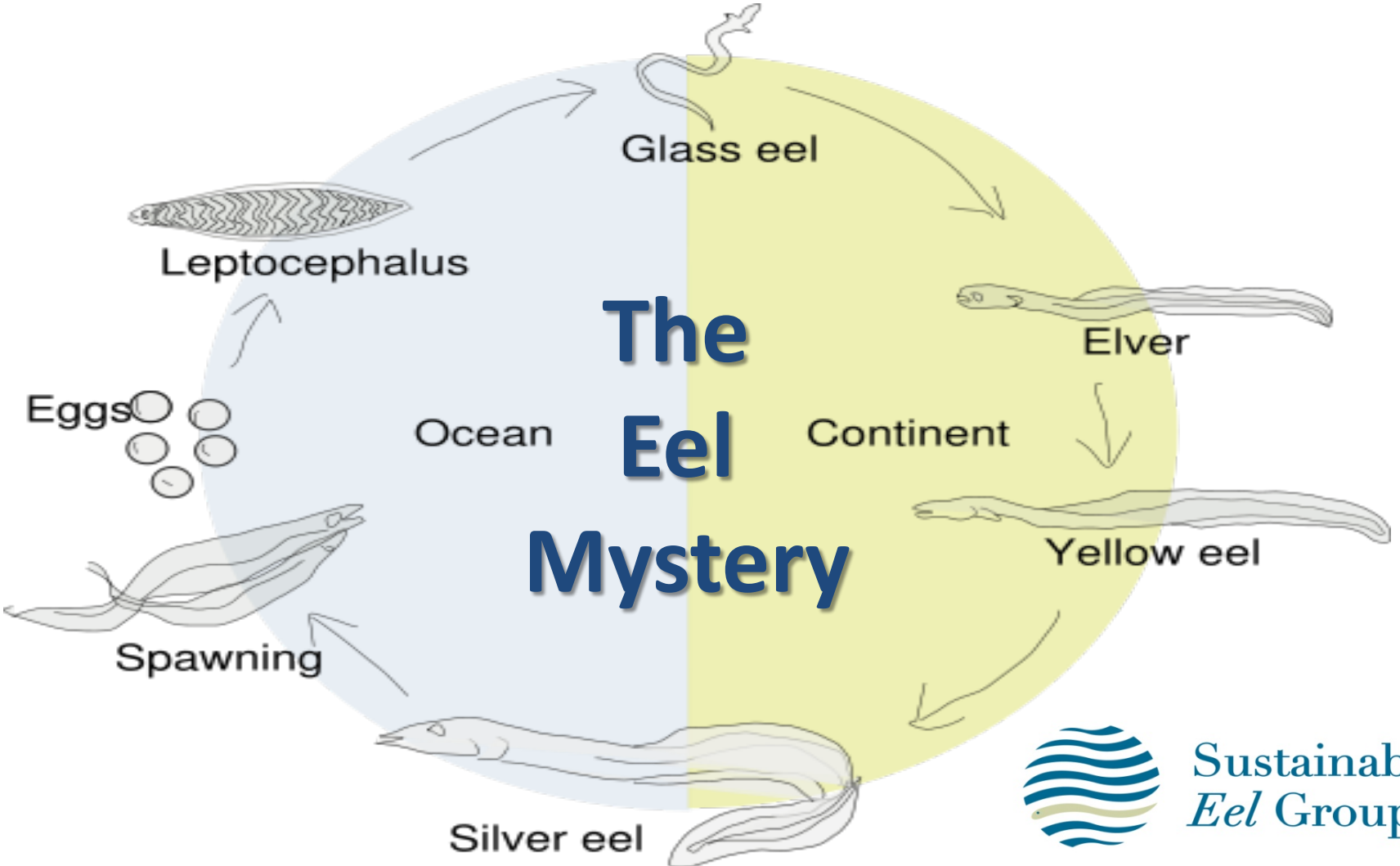
Marlborough

24th November 2014

Andrew Kerr

Sustainable *Eel* Group

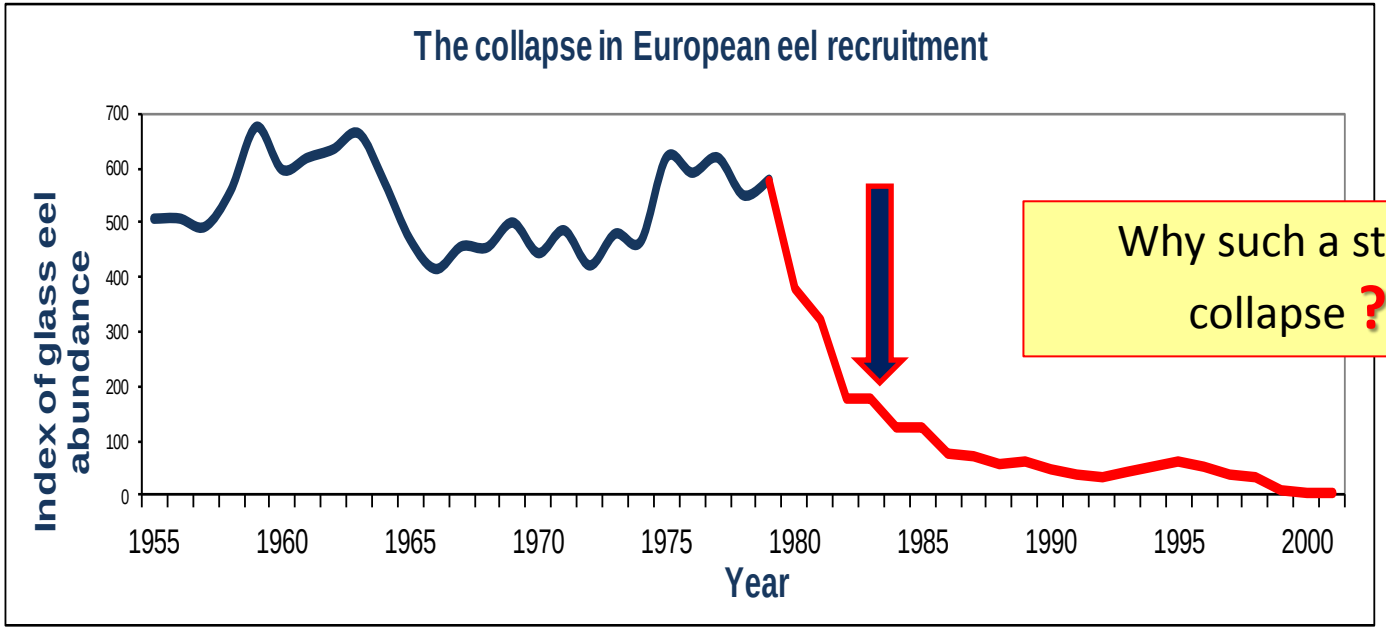
Sustainable Eel Group



The Eel Mystery

Sustainable *Eel* Group

The Glass Eel Crash



Used as Proxy for Overall Population

Sustainable *Eel* Group

Factors driving eel decline

- Oceanic / climate change
- Habitat loss
  (85% wetlands lost in last 200 yrs)
- Migration barriers
- Hydropower & water pumps
- Unsustainable fishing
- Disease & pollution

Sustainable *Eel* Group

Key headlines

- ICES statement “outside safe biological limits”
- CITES listing “at appendix 2”
- IUCN red listed “critically endangered”

European Eel Recovery Regulation 1100/2007:

“For the protection and sustainable use of the stock”

Sustainable *Eel* Group

SEG Strategy

- **Credibility**
- Conservation
- Communication
- Commercial

"To influence"

Sustainable *Eel* Group

Heavyweight members & advisors

Alan Walker
ICES Scientist
CEFAS

Rivers Trust
Scientists

Miran Aprahamian
ICES Scientist

Alistair Maltby
Director, Rivers Trust

EA Eel Champion

Brian Knights
Retired ICES Scientist
IFM

David Bunt
IFM / Environment Agency

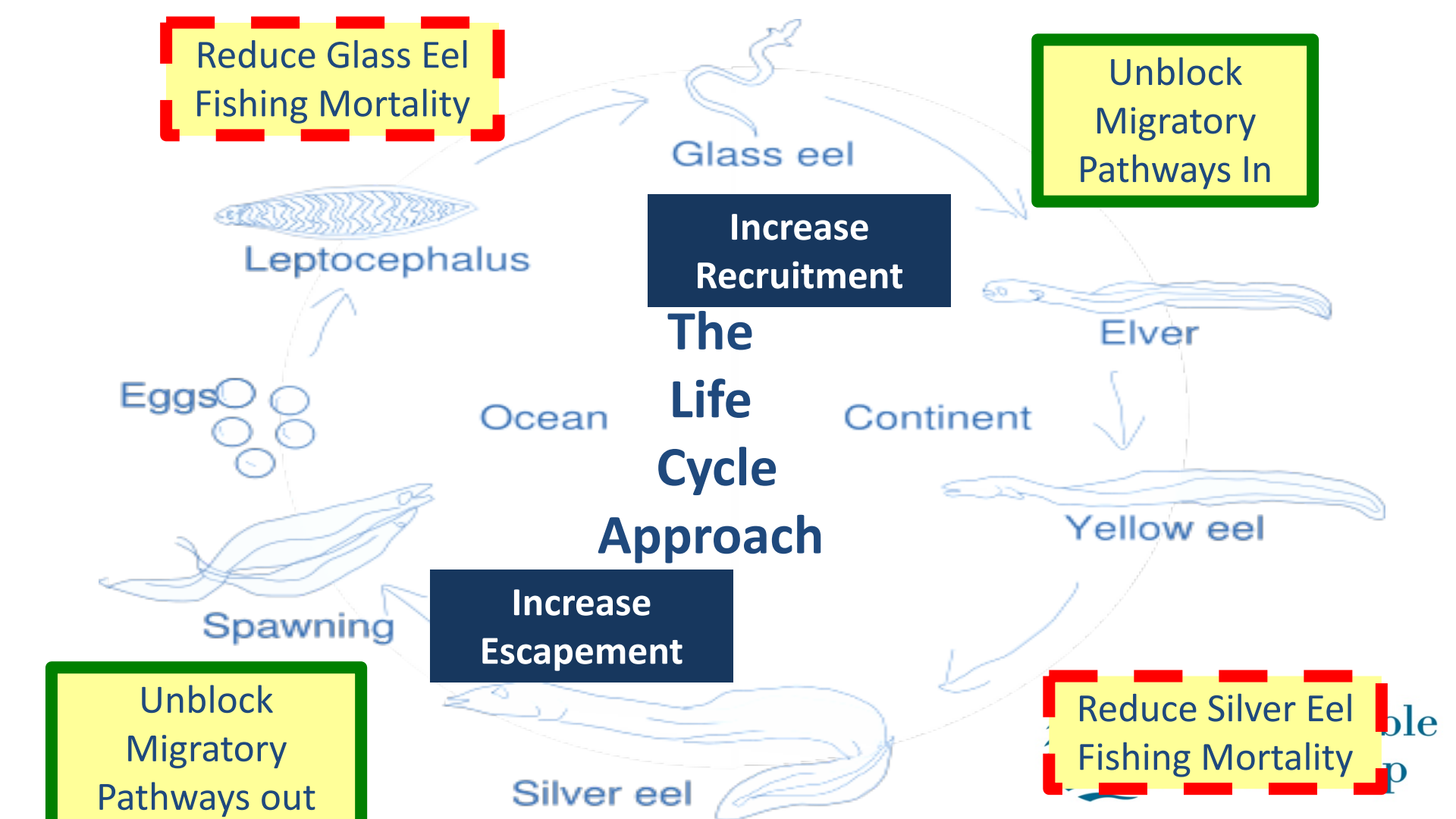
Heidi Stone
Environment Agency

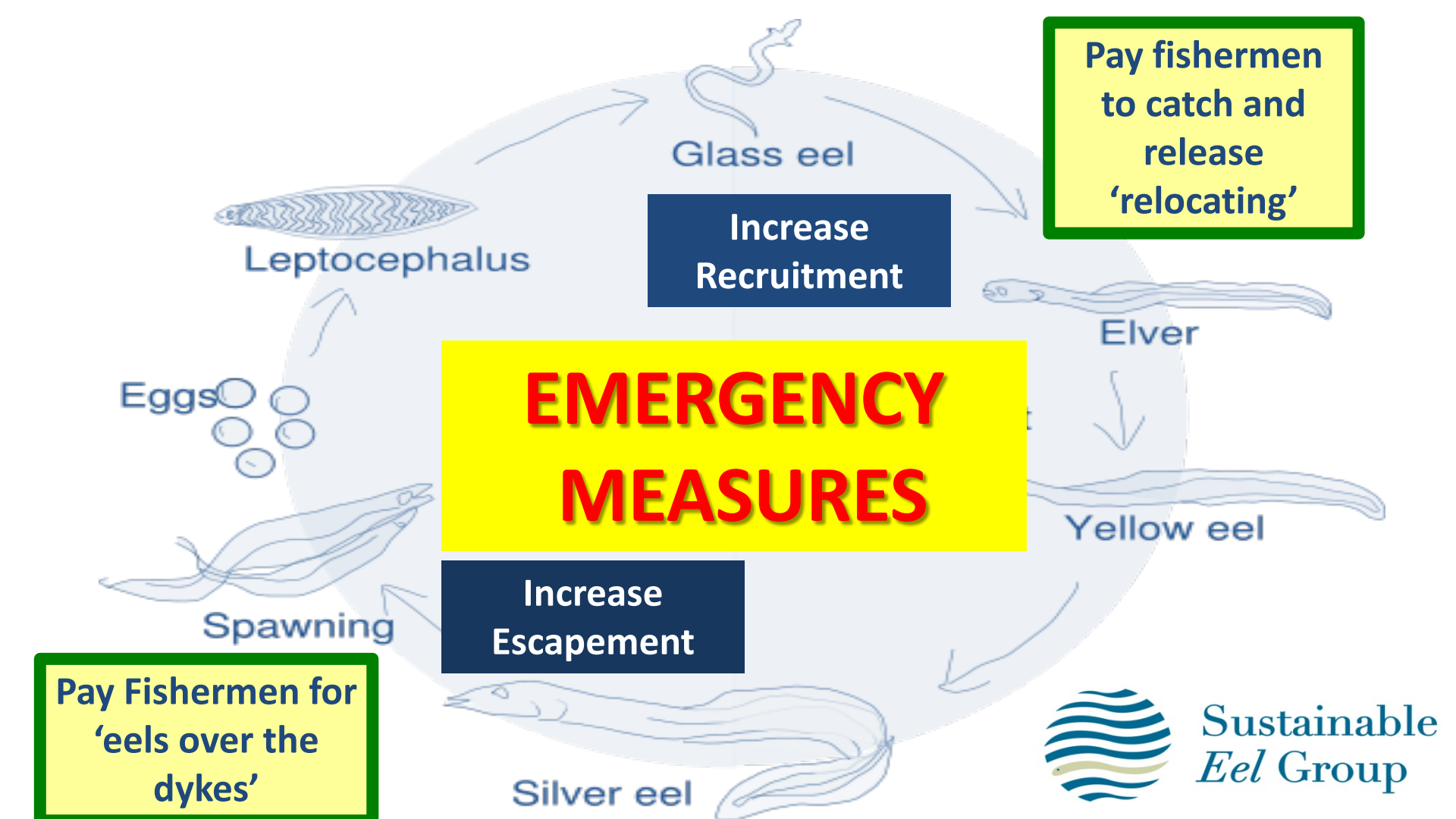
Andy Don
Environment Agency

Chris Leftwich
SEG / Fishmonger's Co

Committed to finding a sustainable solution

Sustainable *Eel* Group


Reduce Glass Eel Fishing Mortality
Unblock Migratory Pathways In
Increase Recruitment
The Life Cycle Approach
Increase Escapement
Unblock Migratory Pathways out
Reduce Silver Eel Fishing Mortality
Glass eel
Elver
Yellow eel
Silver eel
Spawning
Eggs
Leptocephalus
Ocean
Continent



Pay fishermen to catch and release 'relocating'

Increase Recruitment

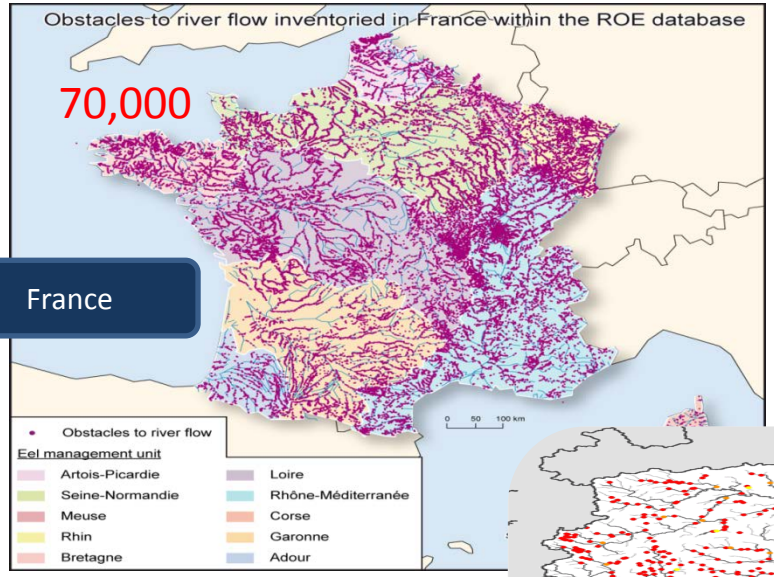
EMERGENCY MEASURES

Increase Escapement

Pay Fishermen for 'eels over the dykes'

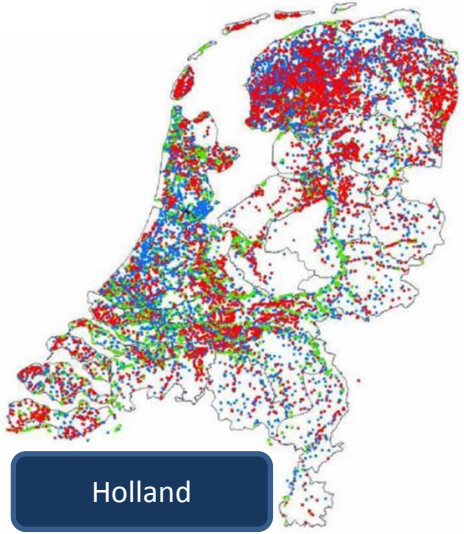
Sustainable *Eel* Group

Eels struggle to enter Europe's waterways



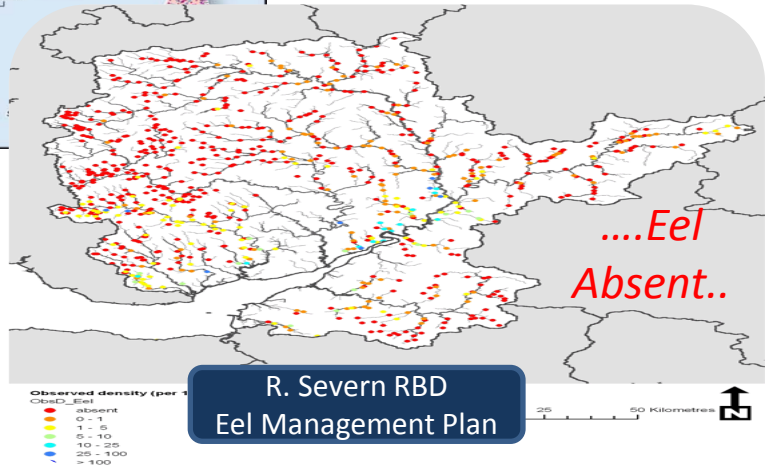
France

- 2,278 Sluice Gates
- 8,488 Dams
- 4,671 Water Pumps



Holland

productie: drs. N.W.P. Brevé, Sportvisserij Nederland
bron: 2001, RWS Meetkundige Dienst (WIS-BORIS)



R. Severn RBD
Eel Management Plan

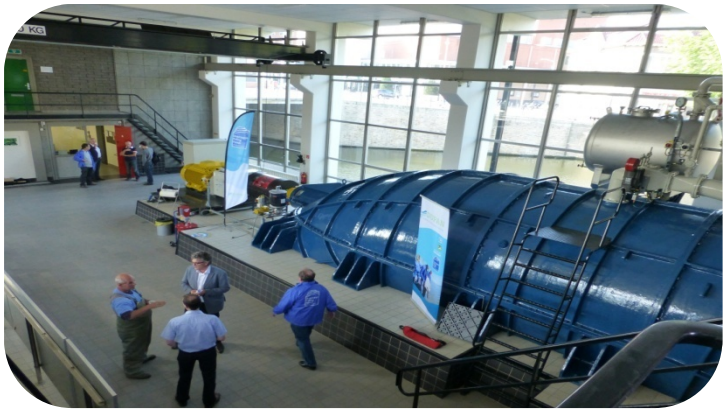
Sustainable *Eel* Group

UK action for the long term

- 600 solutions so far
- 1,000’s more to do

Sustainable *Eel* Group

Europe relies on many 10,000's of water pumps & 25,000 hydropower turbines



Sustainable *Eel* Group

Escapement mortality is also critical

Hydropower & water pumping stations are killing hundreds of thousands of mature eels each year

Sustainable *Eel* Group

With Zac Goldsmith April 2014

Sustainable Eel Group

	2014 (million)	2013 (million)
Germany	20	15
France	23	12
UK & Ireland	15	4
Sweden	3	3
Holland	12	3
Denmark	2	2
Belgium	1	1
Czech Republic	5	
Poland	3	
Estonia	3	
Others	4	3
Total	**90+**	**43**

Emergency Relocation / Restocking Measure

Sustainable *Eel* Group

SEG only supports sustainable fisheries

+

=

=

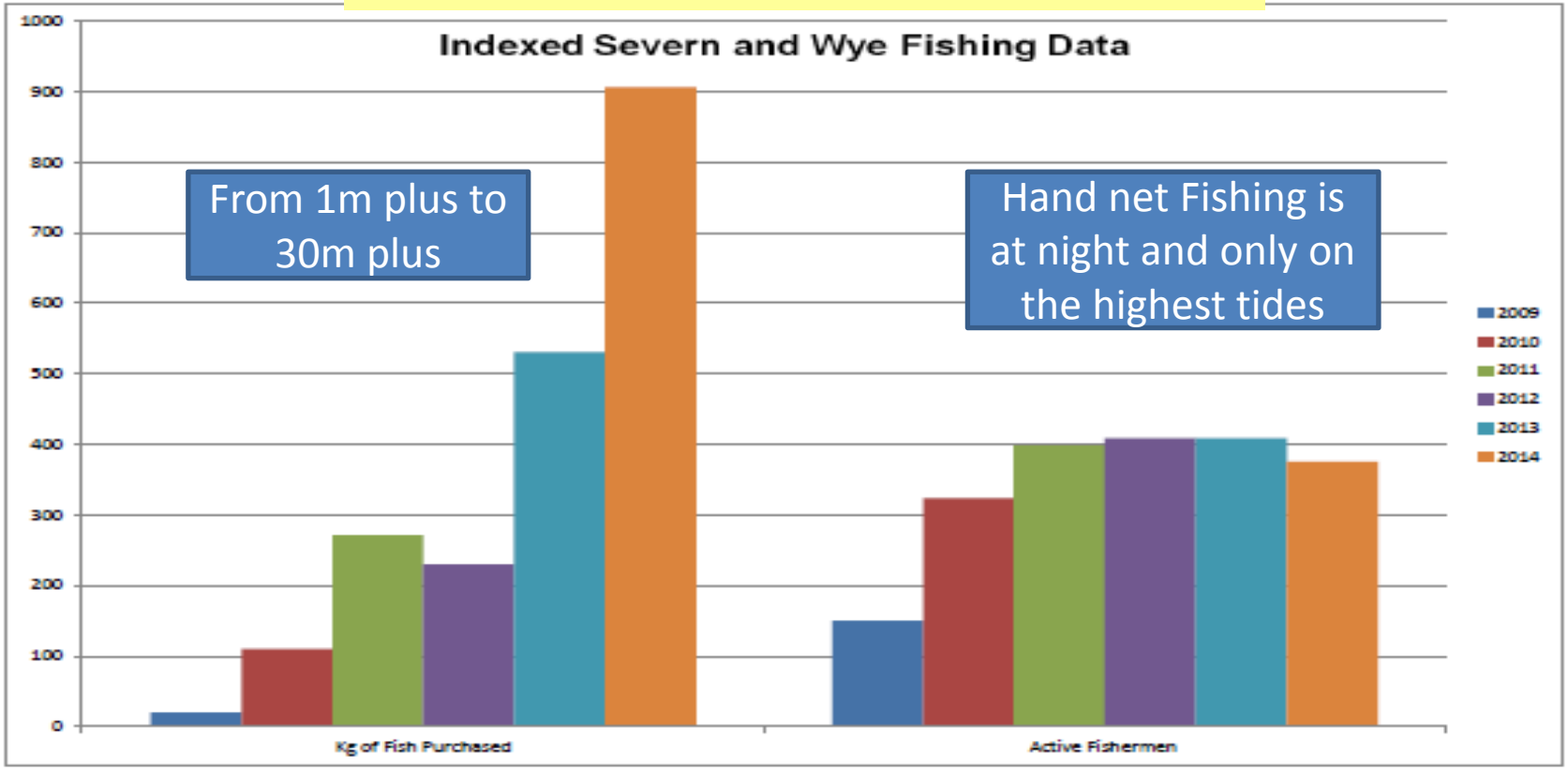
Sustainable *Eel* Group

- Currently 56 certificate holders – dedicated to sustainability & traceability
- The Sustainable Eel Standard:
  - exceeds EU Recovery Regulation requirements
  - will reduce wasteful mortalities by tens of millions every year
  - provides a scientific and conservation based defence for well managed commercial fisheries, restocking programmes, farming & processing
- 70% of industry independently assessed as working to the Standard

Sustainable *Eel* Group

Media requests & PR 2013

Sustainable *Eel* Group



60 to 70% of Severn output used for ‘translocation’ projects

Sustainable *Eel* Group

Its early days but…. some questions…

- Will the increase in recruitment continue?
- What will constitute recovery?
- Which of the recovery measures have had any effect?
- Where should SEG focus its energies?
- How to extend the SEG agenda for all 19 species?

Sustainable *Eel* Group

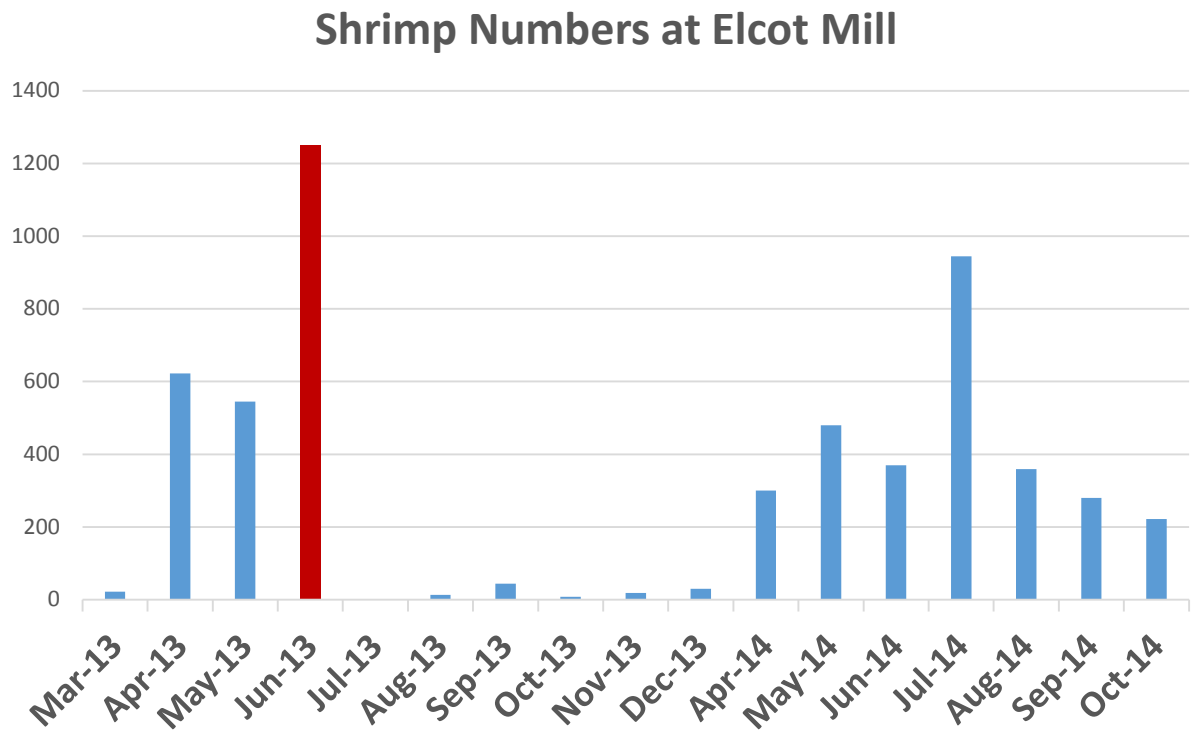
Riverfly Monitoring in 2014

What Changes Have We Seen Since Last Year?

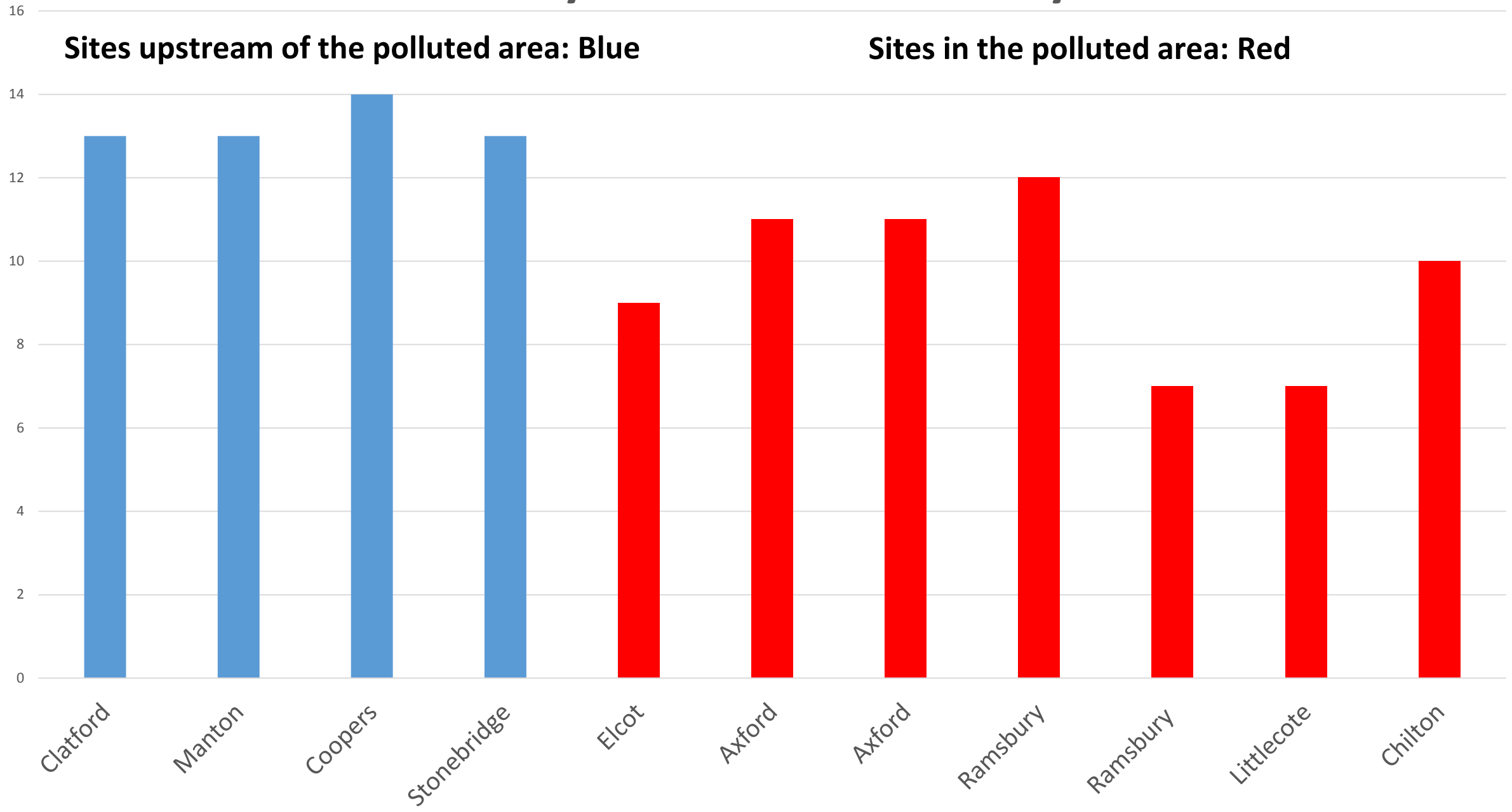
The 8 Key Indicator Species

Our Site at Elcot Mill:

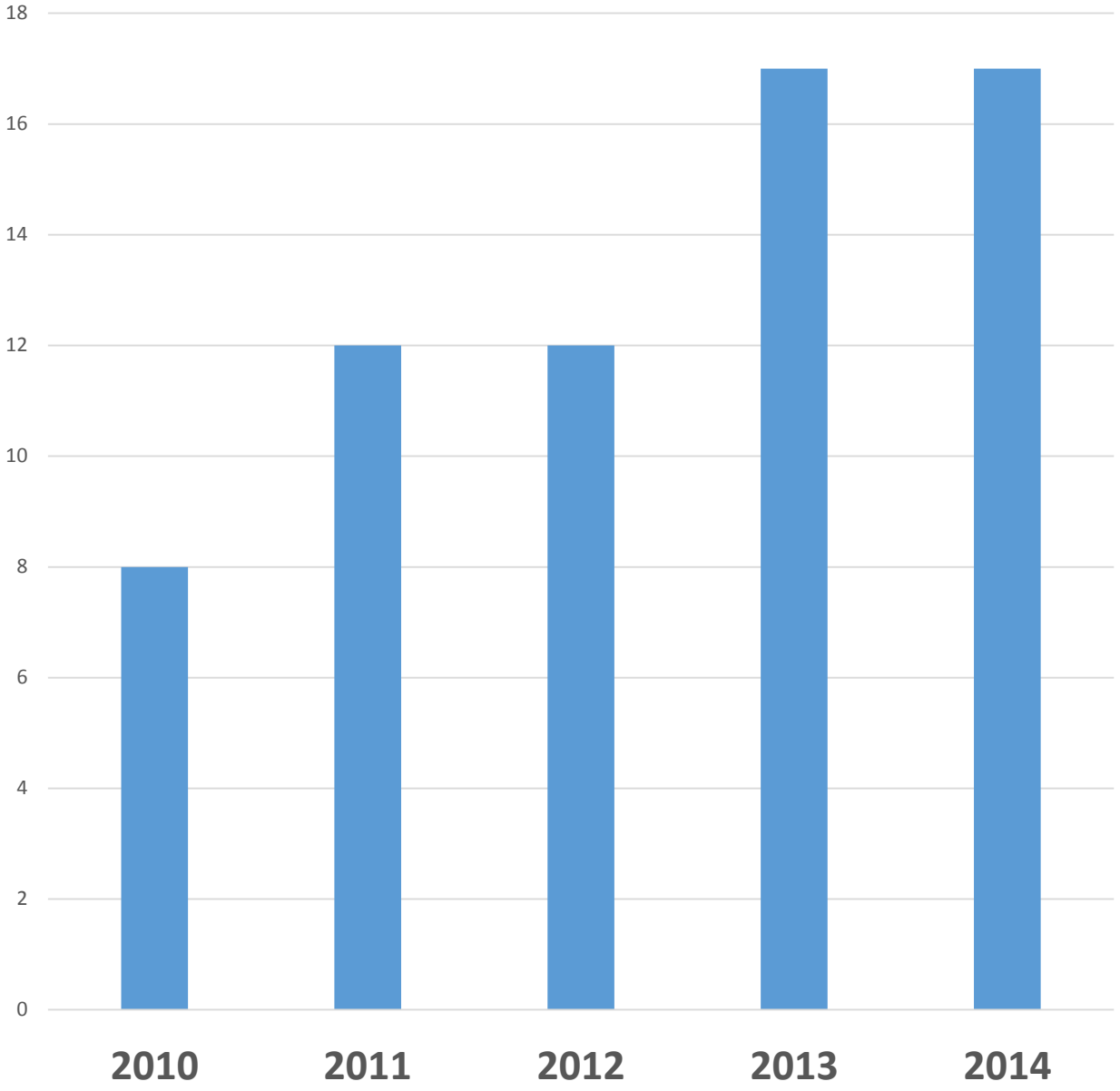
The red bar shows the last shrimp count before pollution. It can be seen that numbers reached triple figures again in April this year.



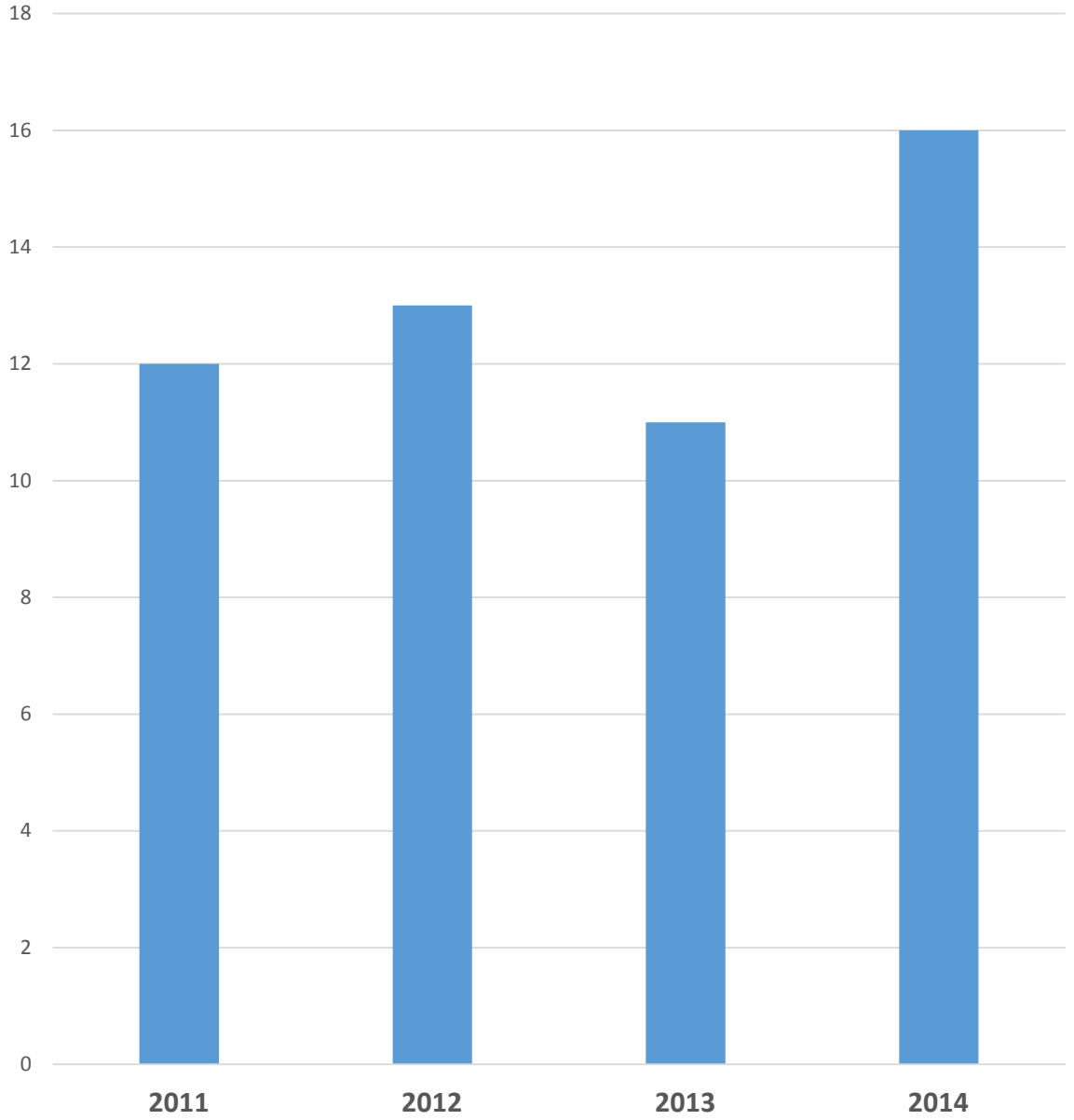
Riverfly Scores at Sites in July



Scores at Cooper's Meadow in August 2010 - 2014



Scores at Poulton Footbridge in August 2011 - 2014



Thank you

MaRIUS

Dr Catharina Landström

SCHOOL OF GEOGRAPHY AND THE ENVIRONMENT

UNIVERSITY OF OXFORD

Managing the Risks, Impacts and Uncertainties of droughts and water Scarcity

- Natural Environment Research Council (NERC) programme
- Consortium: Oxford, Bristol and Cranfield Universities; Centre for Hydrology and Ecology; Met Office
- £2 million, 2014-2017

SCHOOL OF GEOGRAPHY AND THE ENVIRONMENT

UNIVERSITY OF OXFORD

About

- +30 people in 10 teams, 4 WS, 13 tasks
- Focus on Thames Basin
- Natural science modelling, from climate to river ecology
- Social science: national science and policy; and local impacts

SCHOOL OF GEOGRAPHY AND THE ENVIRONMENT

UNIVERSITY OF OXFORD

MaRIUS social science

Human Geography, Oxford

- Professor Sarah Whatmore
- Dr Catharina Landström
- Dr Eric Sarmiento (February 2015)

- Local field studies: Kennet and Lea

Kennet case study 2015

Aim: to explore how local residents relate to the river in different ways and how impacts of drought and water scarcity are perceived

- Interviews, focus groups and oral history with people living in the area
  (and document studies)

Outcomes

In addition to academic publications

- Contribute to the creation of pathways for local views on water management issues to inform policy
  - Add to MaRIUS stakeholders' views

(Builds on previous successful local case study in Pickering, North Yorkshire, local knowledge informing flood risk policy)

SCHOOL OF GEOGRAPHY AND THE ENVIRONMENT

UNIVERSITY OF OXFORD

Present stage

Make contact with local residents

- Interviews
- Background briefings
- Further contacts
- Advice on written sources
- … all input is welcome!

Sign-up sheet

SCHOOL OF GEOGRAPHY AND THE ENVIRONMENT

UNIVERSITY OF OXFORD