











# Citizen Crane Year Eleven Annual Forum



# **Agenda**

- 10:30 Citizen Crane Forum Welcome (Joe Pecorelli, ZSL)
- 10:35 2024/25 Citizen Crane data update (Rob Gray, CV CIC)
- **10:50 Environment Agency and Thames Water Updates**
- 11:05 **Q&A**
- 11:20 **Break**
- 11:40 The Crane Valley Story (Lucy Taylor, Make Work Play)
- 11:55 Water Voles in the Crane (Sam Facey, ZSL)
- 12:10 Monitoring restoration projects into the future (Azra Glover, ZSL)
- 12:25 **Q&A**
- 12:35 Discussion Comms, Next Steps (CC Team)
- 12:55 Group Photo & Lunch
- 14:00 Forum close









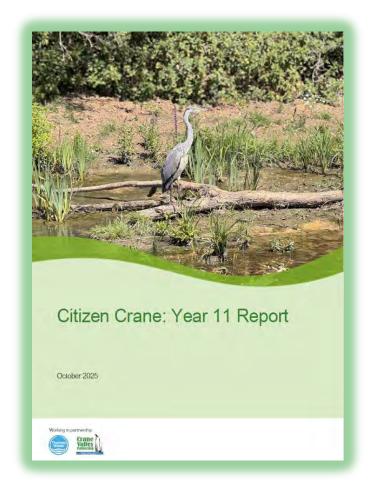








# 2024/25 Citizen Crane Data Update













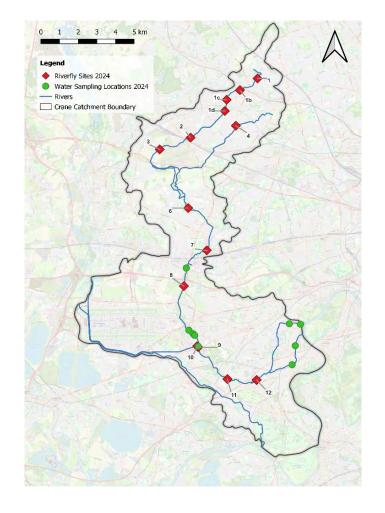






**Crane Catchment Map & Monitoring** 

**Points** 





Headstone

Manor 🥟















# **Project Context**

- 1. Major pollution: 2011 and 2013
- 2. Monitoring started in 2014
- 3. Volunteer led (over 70 trained and monitoring)
- 4. Project team: ZSL, FORCE & frog environmental
- Steering Group: CVP, EA + TW (meet quarterly)
- 6. Annual Report and Forum
- 7. Outfall Safaris: 2016, 2021 and 2024
- 8. Led to UK's 1st urban Smarter Water Catchment



















# **Previous Findings**

- 1. Upper reaches poor
- 2. WQ improves downstream
- 3. Poor morphology in middle
- River is removing both ammonia and phosphate
- Lower reaches near GES
- SWOP + OS helped remove 100's of pollution sources
- 7. No overall improvement in the river over first 8 years















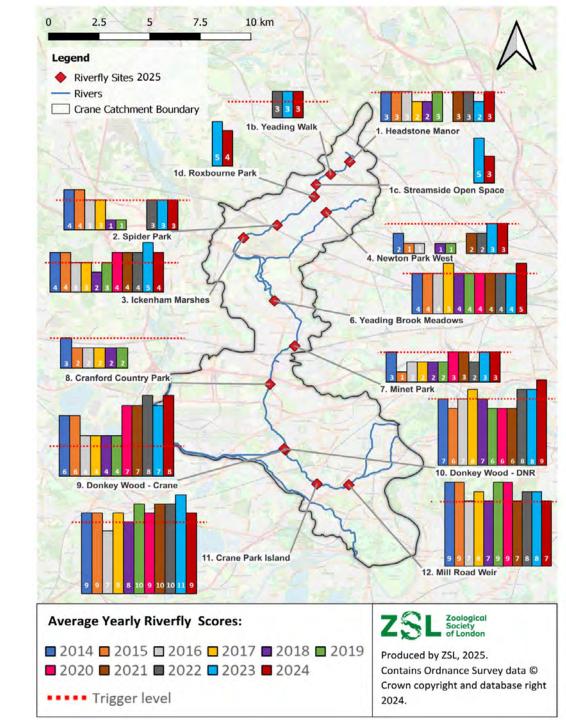




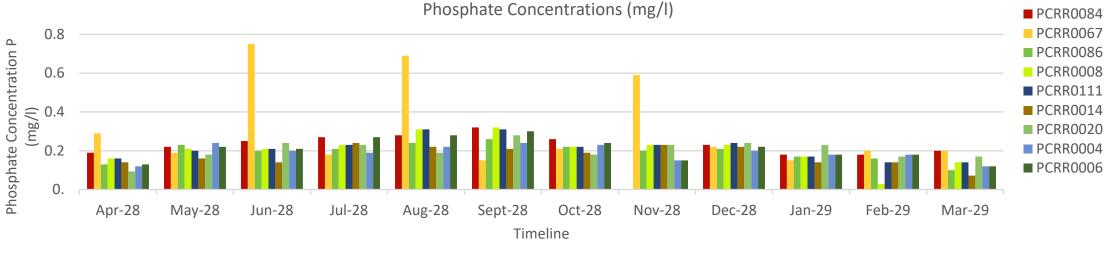
# 11 Years of RMI

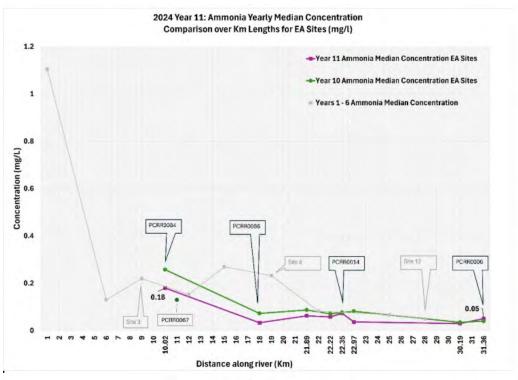
- 1. Year 11 Report available
- Consistent RMI for each site
- 3. Positive trend for most sites
- 4. Heathrow treatment works benefit continues
- 5. Local factors at some locations
- 6. Major improvements at pilot restoration sites





# **EA Water Quality Data**





# **Overview**

## Reasons to be cheerful: Reasons to be cautious: Outfall Safari, SWOP, CSO New and persistent misconnections monitoring, Yeading Brook Ongoing cross connections East and CSO spills CWG and CIG – GLA Healthy Road run-off and problems Rivers programme River restoration and with engagement wetland projects Future funding?





disposal



Expansion of citizen science

misconnections and sewer

Public engagement -

Improvements in river

condition and value













# Citizen Crane – Year 11 Report

Lewis Elmes
Catchment Coordinator
14/10/2025

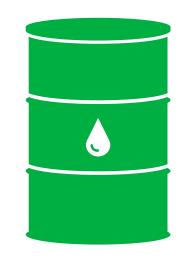
<u>lewis.elmes@environment-agency.gov.uk</u>



# **Year 11 Reported Pollution Incidents**

- 41 Reports
  - Crane 11
  - YB West 13
  - YB East & Roxbourne 14
  - Yeading Brook 3
- Classifications
  - Cat 1 (major) 0
  - Cat 2 (significant) 3
  - Cat 3 (minor) 38

- Pollutants
  - FOG 3
  - Hydrocarbons 8
  - Sewage 27
  - Other/Uncertain 3
- Causes
  - Blockages 12
  - Flytipping 4
  - Misconnections 10
  - Sewer Defects 3
  - Other/Uncertain 12





# **Please Report Pollution!**

 Online - <u>Report water pollution</u> in <u>England - GOV.UK</u>

Phone – <u>0800 80 70 60</u>

Thames Water - Thames
 Water - Report a problem - View and report problems

- Key Information (use your lips!)
  - Location what3words
  - Impact extent/damage
  - Pollutant sewage/oil?
  - Source outfall?
- Note the Reference No.



# **Water Framework Directive 2025**







SWOP and Misconnections
Crane Valley Catchment

Rachael Sargent

**Environmental Protection Advisor** 

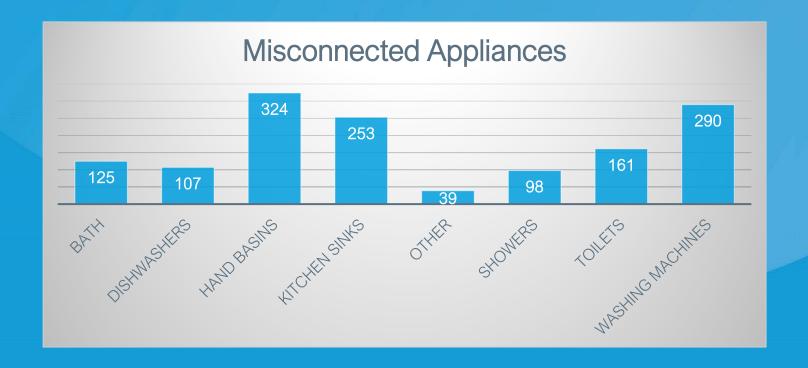


# History of the Crane Valley Catchment on SWOP

SWOP Projects	
Signed Off Projects	21
Live Projects	20
Waiting List	16

No. of Properties Surveyed	3298
Properties with pollution Sources	507
Properties Rectified	403
Total Number of Misconnected Appliances	1397
Total Number of Defects Found	129





# Crane Valley Catchment SWOP 2024 - 2025

Properties with Pollution Sources	114
Misconnected Appliances	141
Defects	48
No. of Properties Surveyed	852



Rectifications
- 7

Field
Investigations
- 10

• 3 outfalls from last year's outfall safari are currently being worked on









# MARK WORK PLAY











STORY



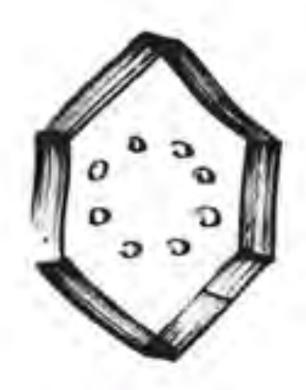
PLANNING



MEETINGS



COLLABORATION



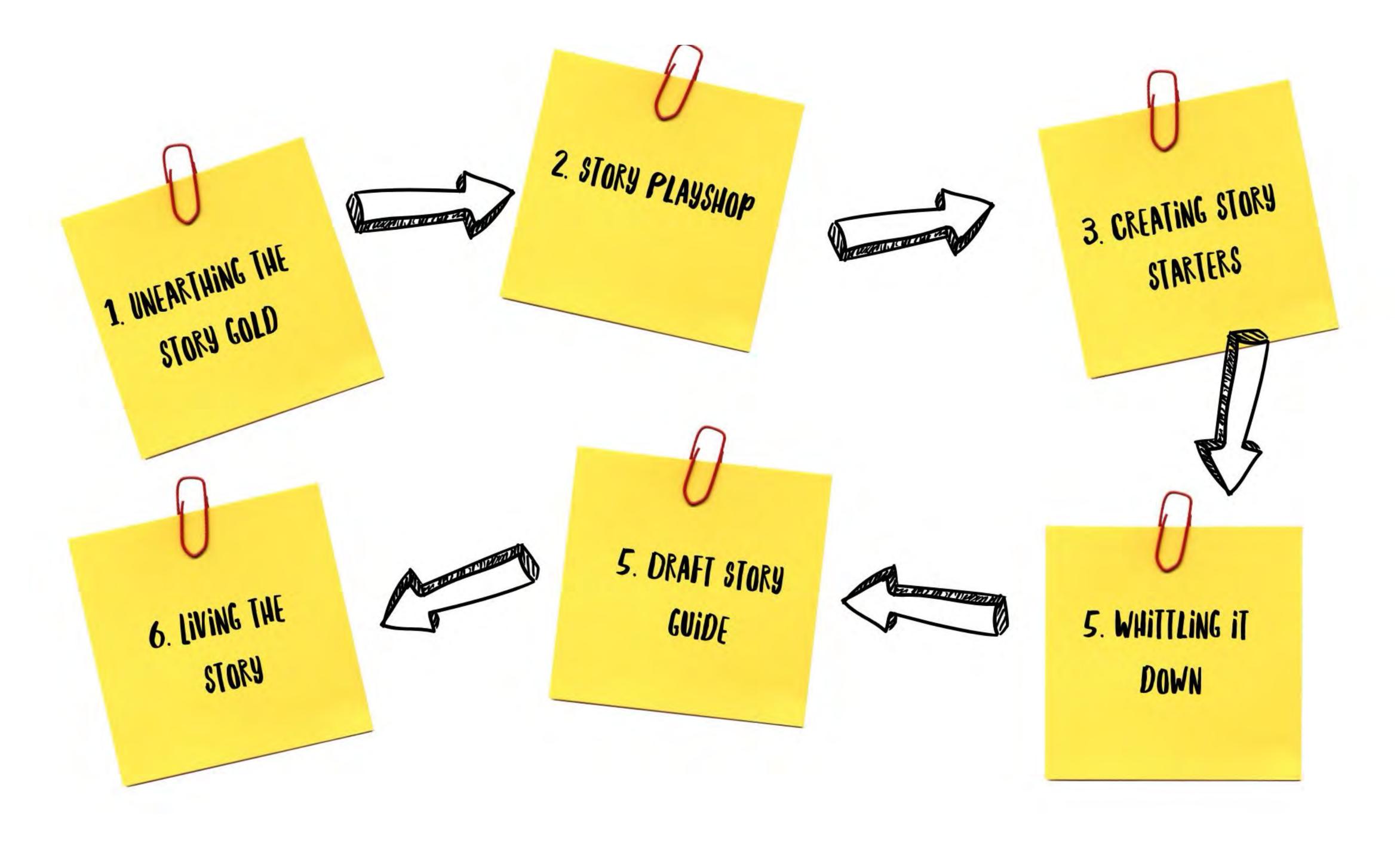
CULTURE

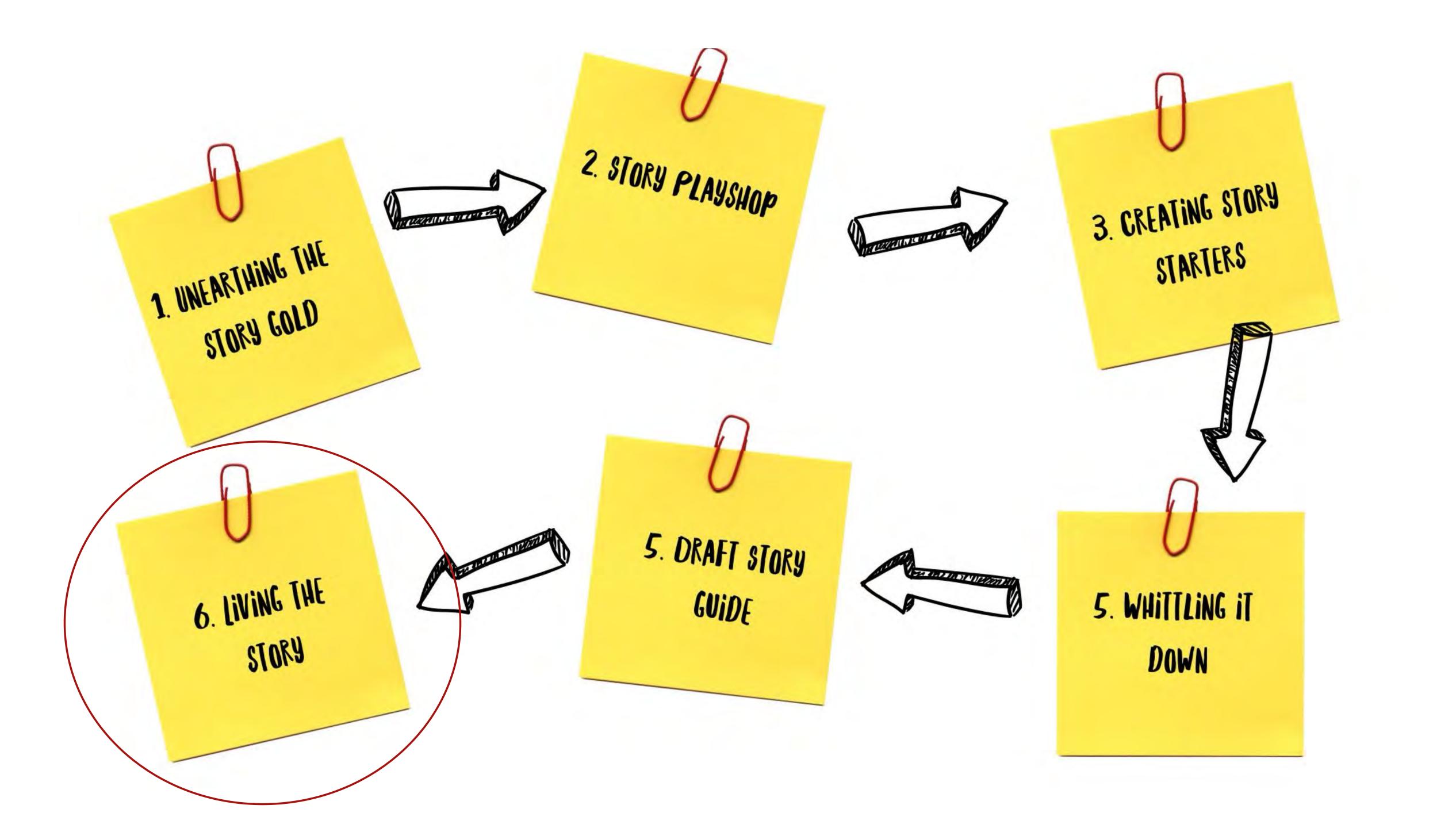


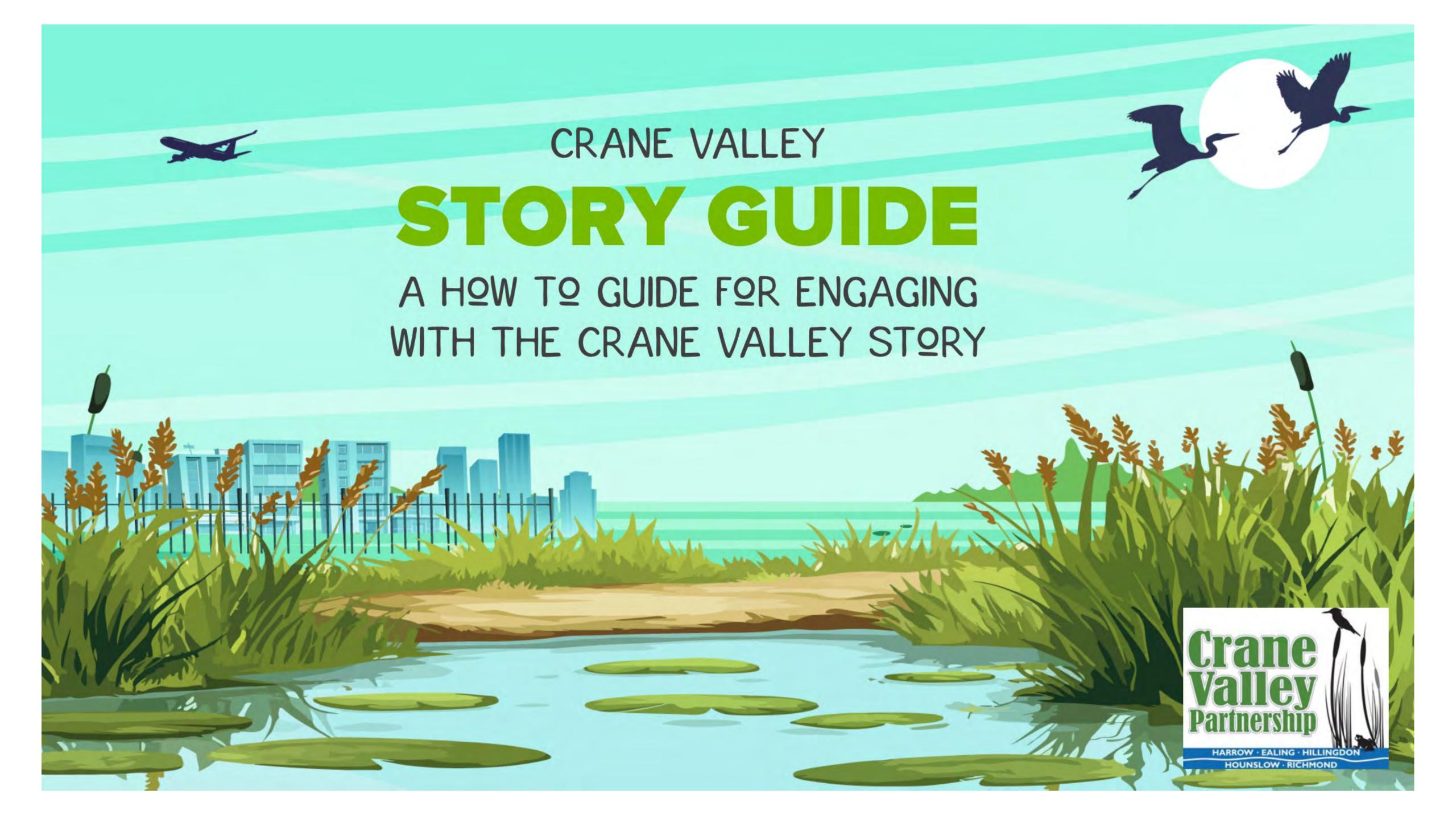
STRATEGY

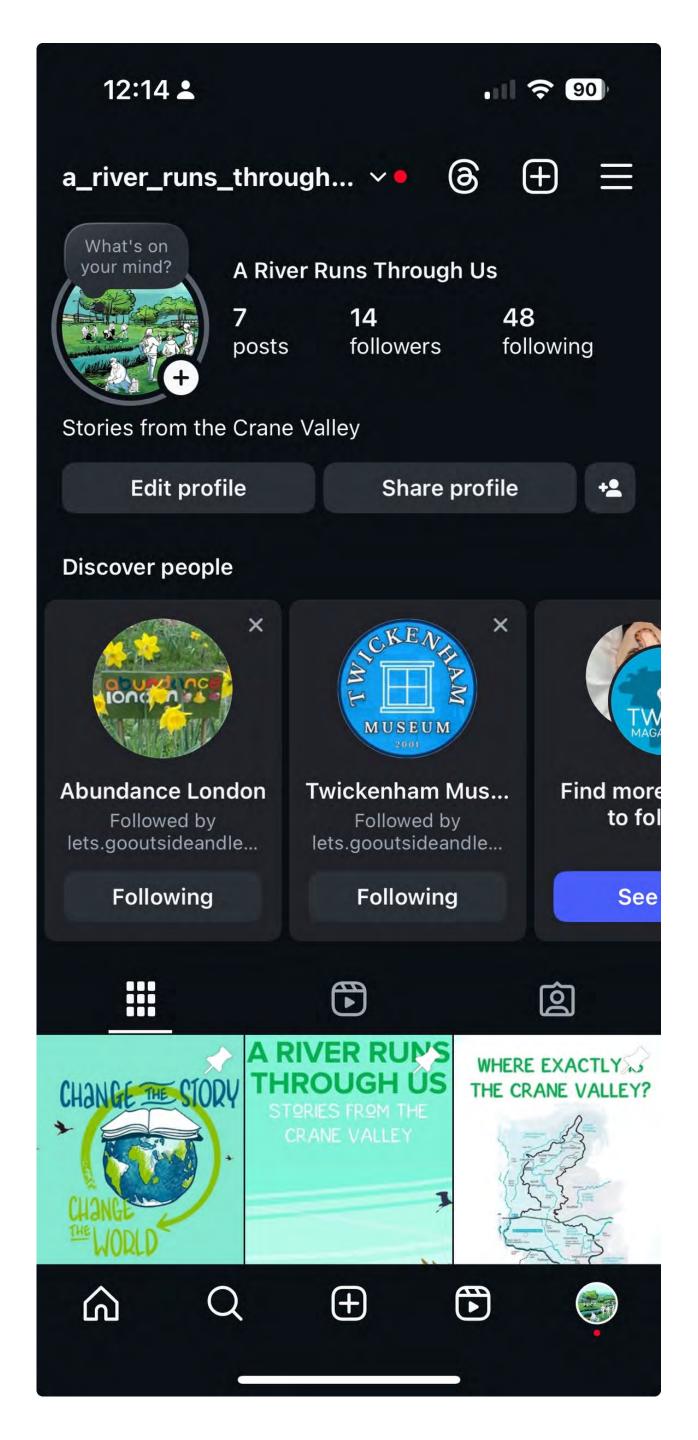


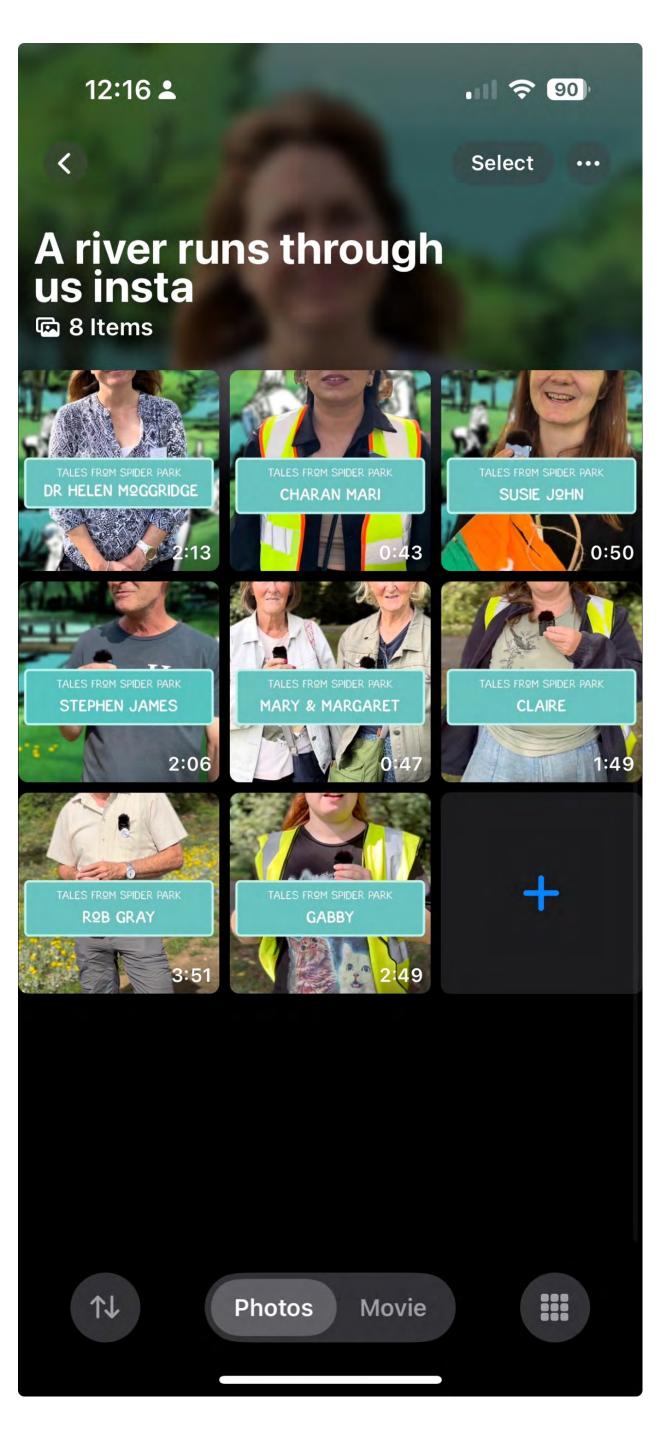


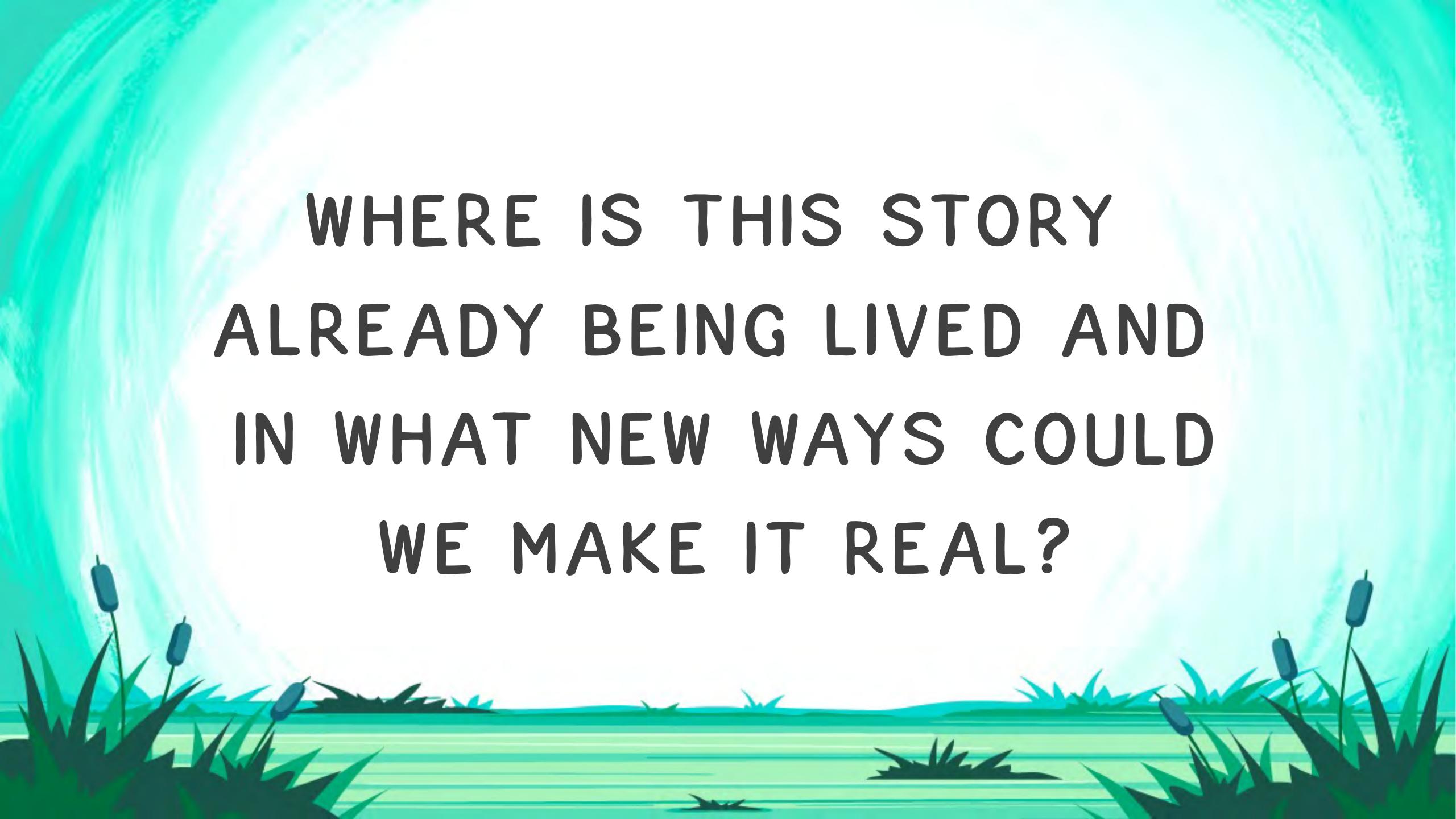














# A RIVER RUNS THROUGH US



# A STQRY QF CQNNECTIQN

# A RIVER RUNS THRQUGH US

**GIFT** 

**HERO** 

The communities that love and care

for the river and it's open spaces

Beautiful spaces that connect

**MENTOR** 

The River: A reminder of our interdependence



# BETTER WORLD

A world where the rivers of the Crane Valley are well known, protected, loved and thriving. There is a bustling Crane Valley Trail, beautiful spaces where people can connect with themselves, each other and the world around them. Wildlife is abundant and volunteers are in plentiful supply. Partners are delighted by what they have achieved together.

# BROKEN WORLD

A world of isolation and disconnection. Where people are separate from each other and nature. Where many West Londoners don't even know the river exists and this once valuable river lies disjointed and unloved.



The river is the thread that connects people, places, habitats and wildlife

Resilience, Positivity, Beauty and



# **VALUES**

Collaboration,

YOUR ROLE

# BEAUTY MAKING

Creating beautiful, connected spaces Where people and wildlife can gather

# **CONNECTING**

Making connections and removing the barriers to connection

# STORY TELLING

Collecting and sharing the stories of the Crane Valley

# **AMPLIFYING**

Giving a platform to and highlighting the things that are going on in the valley so people can find each other



# 

A LOST RIVER NO ONE KNOWS

**DISJOINTED AND FRAGMENTED** 

A VALLEY THAT'S NOT JOINED UP

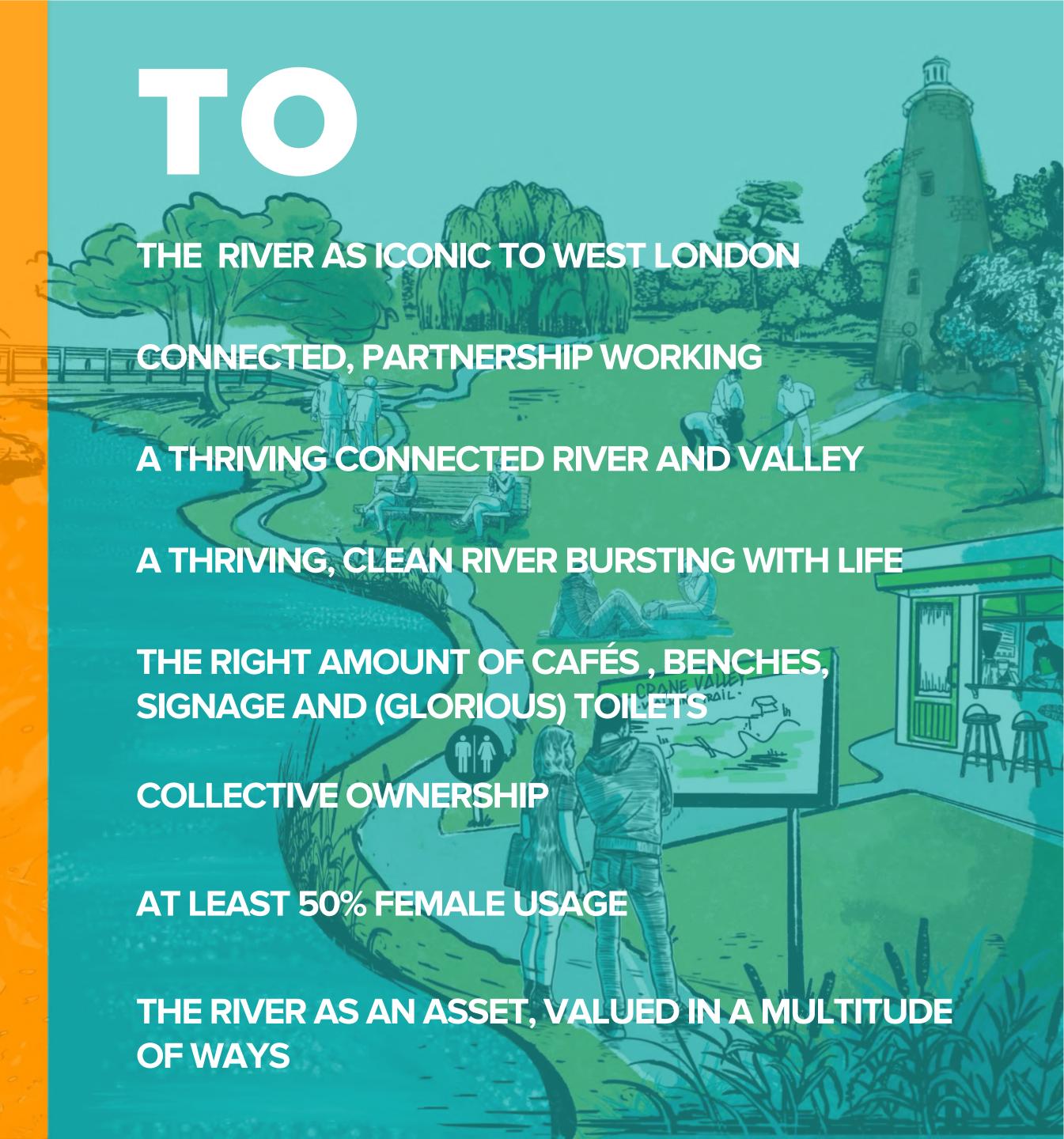
A RIVER THAT IS POLLUTED AND STRUGGLING

LITTLE INFRASTRUCTURE

NO ONE TAKING RESPONSIBILITY

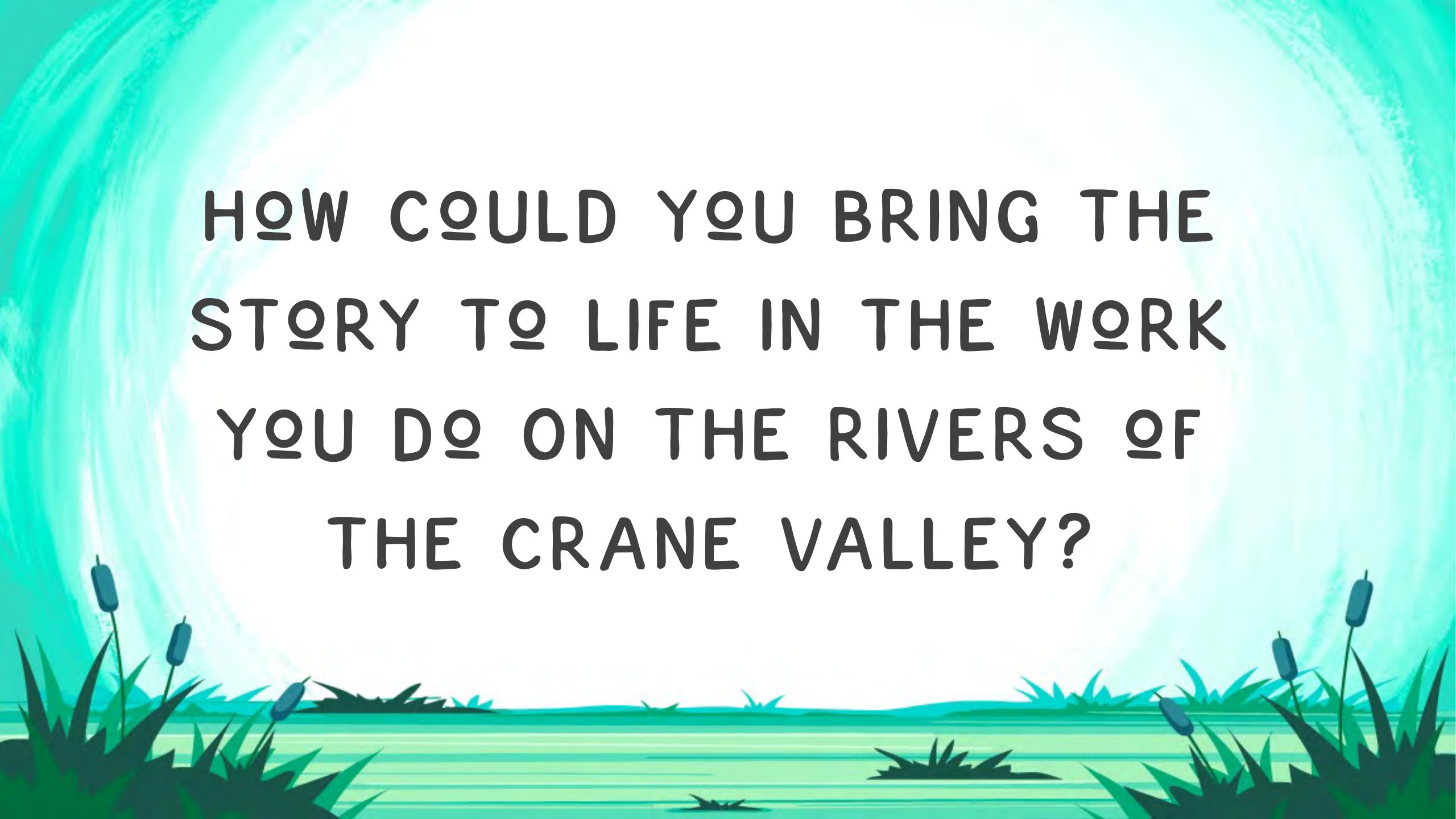
MAINLY MEN USING THE SPACE

THE RIVER AS A LIABILITY





# HOW COULD THE STORY BE USEFUL FQR YQU?



# NEXT STEPS

- Circulating the Story Guide
- Collecting stories from up and down the catchment
- Looking at different ways we can bring the story to life in words and deeds
- Finding new projects to weave the story into







#### **Water Vole declines**

- In the 1900's, large water vole populations across the British Isles - 93% decline by 1990
- Rapid decline beyond 1990. Officially the fastest declining UK mammal in 2004

#### **American Mink**

Non-native

Originally escapes/released from fur farms in the 1920's

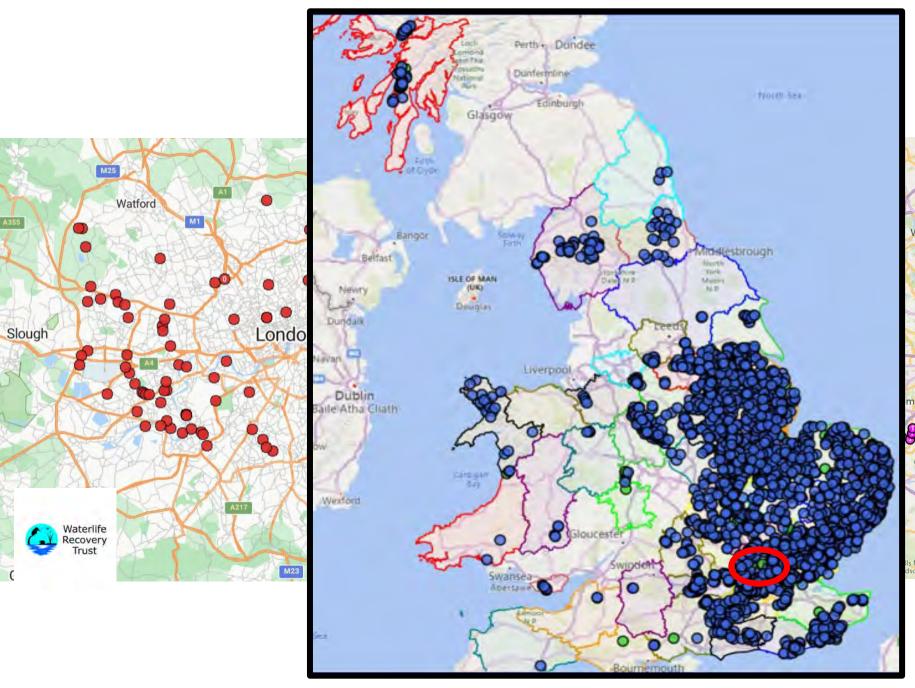
Common and widespread

Predate on a wide range of native fauna and can wipe out water vole colonies













# Crane Water Vole Reintroduction

















## **Evidencing water vole reintroduction - 2024**



- Evidence of water vole settling into Crane Park Island



## **Evidencing water vole reintroduction - 2024**



- Evidence of water vole settling into Crane Park Island
- Evidence of water vole breeding









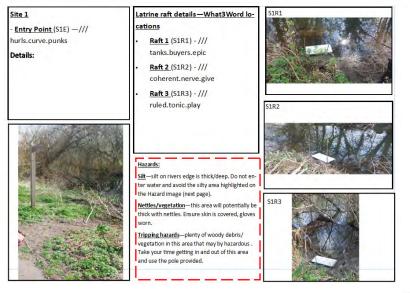


# **Evidencing water vole reintroduction – 2025**



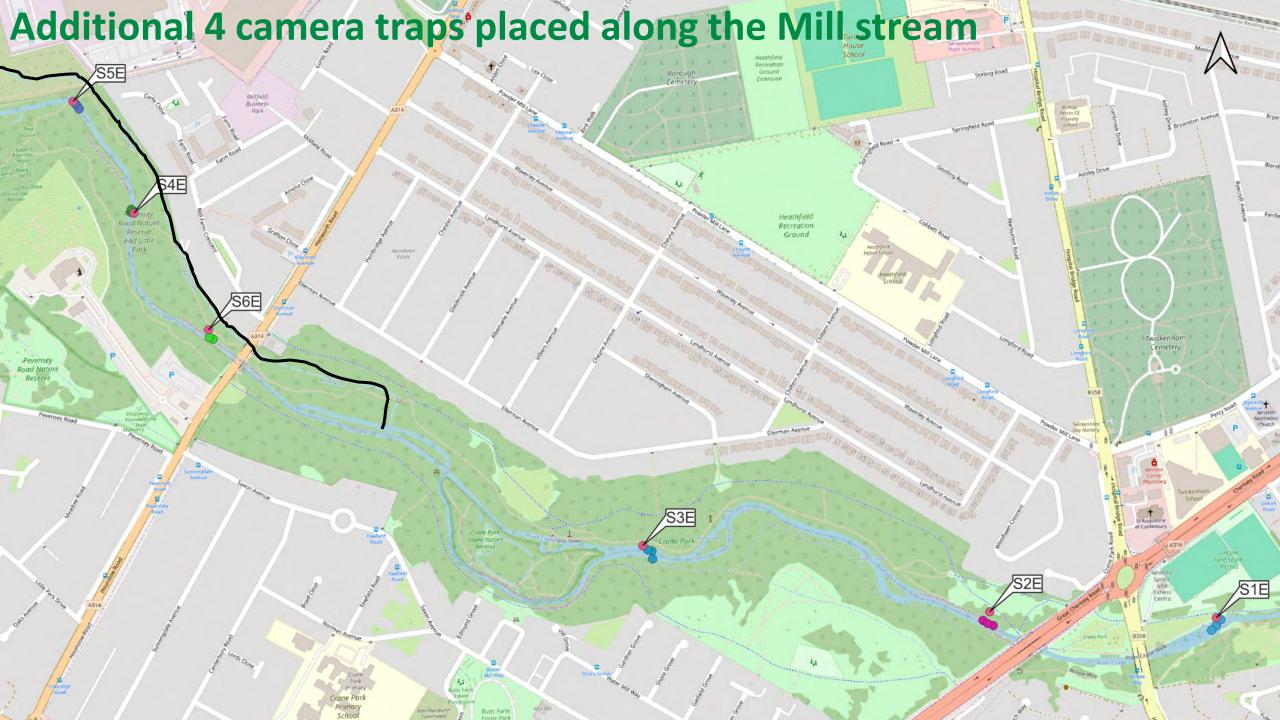
- Volunteer led latrine raft monitoring
- 7 volunteers trained in water vole field signs ID
- Volunteers worked in pairs to check latrine rafts every 2 weeks.

- CPI checked by FORCE volunteers











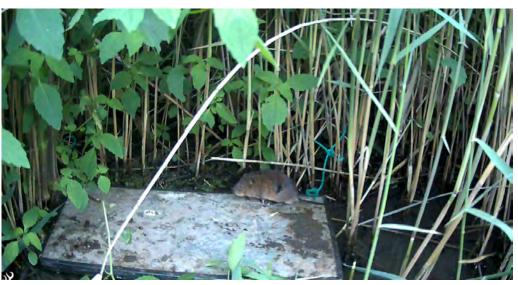
## **Evidencing water vole reintroduction – 2025**



- Water voles remain present on the island
  - Feeding signs, latrines, burrows present throughout the island
  - Camera trap footage of water vole
- Several water vole sightings up and downstream of Crane Park Island





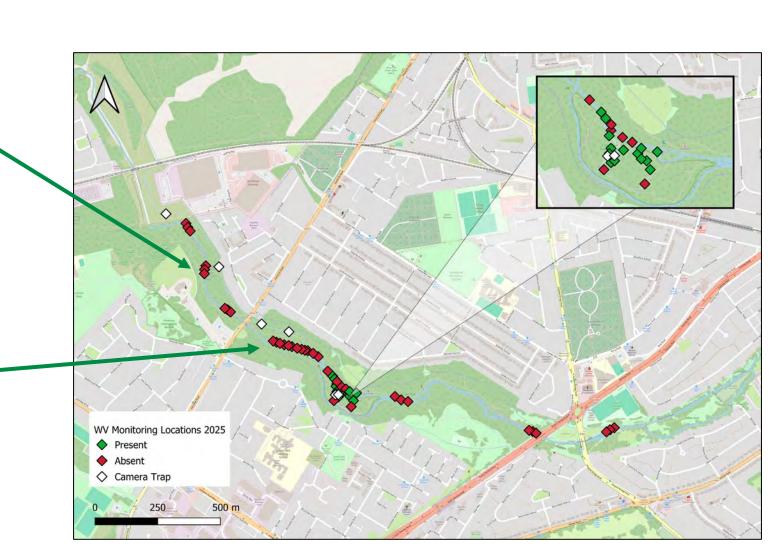


#### 2024 vs 2025





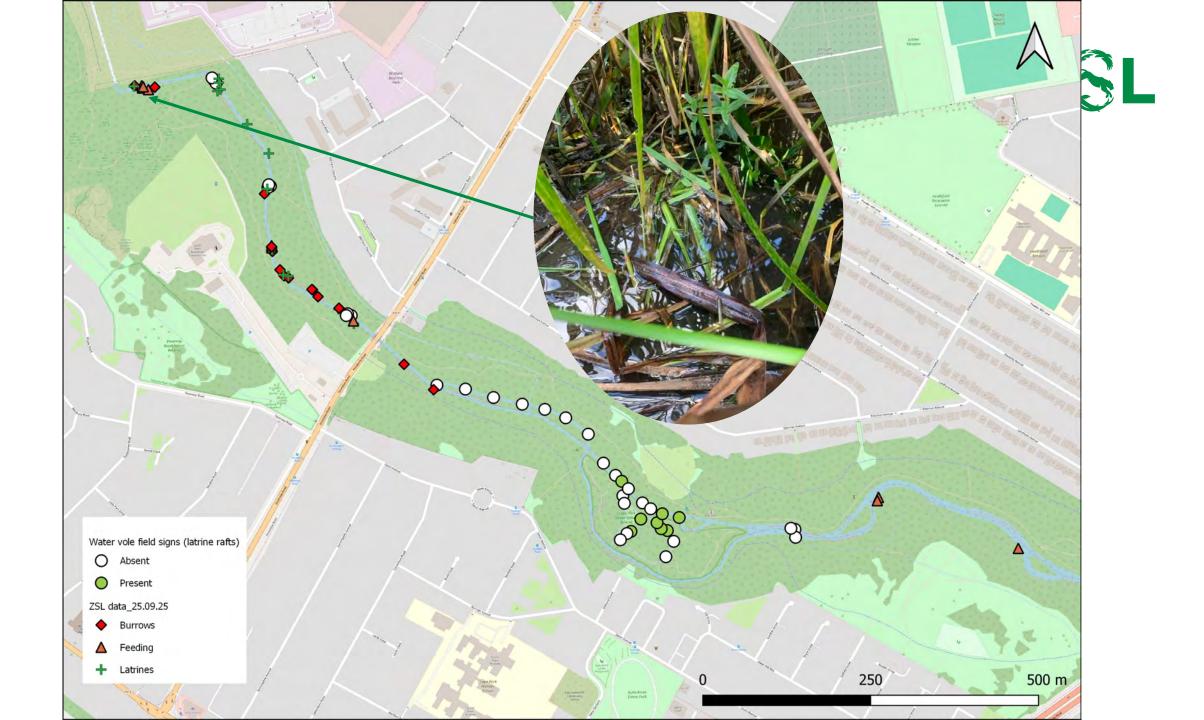














# **Implications**

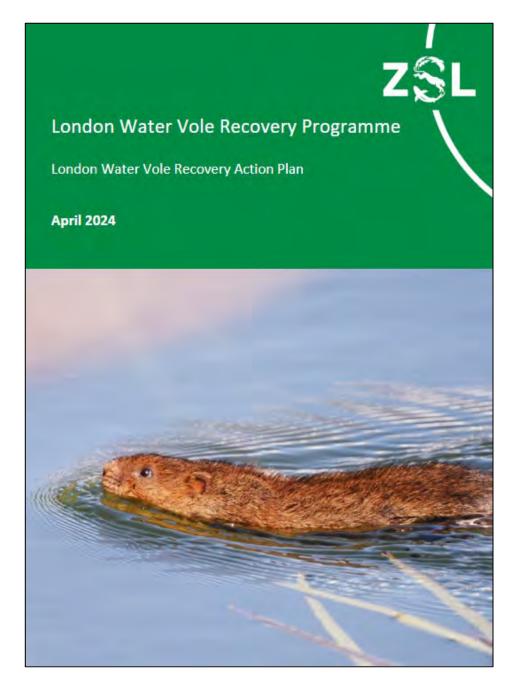


- Initial cohort size potentially small founder population
  - 134 individuals released
    - High winter mortality rates
    - High predation rates
    - Immediate dispersal of some individuals.
- Further water vole release to increase founder size?
- Continued monitoring
  - Evidence the success/failure of water vole reintroduction
  - Build better understanding of water vole in urban environments
- Continue to work to link and expand suitable habitat along the Crane to facilitate water vole expansion
- Learnings applied to the LWVRP and other water vole reintroductions

## Aims of the LWVRP action plan

#### **Goals of the London Water Vole Recovery Programme:**

- 1. Determine the current water vole status.
- 2. Facilitate the eradication of American mink.
- 3. Improve the monitoring of water voles.
- 4. Identify priority sites to protect and restore metapopulations.
- 5. Raise awareness and increase public engagement in recovering water vole populations.
- 6. Build the evidence base through research.
- 7. Unify stakeholders and share best practice.



#### **Useful Links**

- Water vole sighting submission via GiGL Water Vole Recovery Project Casual Recording Form
- Mink sighting submission via WRT Report a Sighting - Waterlife Recovery Trust
- Organise a water vole survey PTES <u>Survey</u> water voles - <u>People's Trust for Endangered Species</u>









Improving the ways we monitor freshwater restoration in the Crane Catchment

Azra Glover

Azra.Glover@zsl.org

# What Do We Mean by Restoration?



- Actions that restore natural river and wetland processes tackling pollution, flooding and biodiversity loss .. bringing freshwaters back to life!
- Examples in the Crane: re-meandering, floodplain reconnection, wetland creation
- Correct design + monitoring + maintenance = improved:





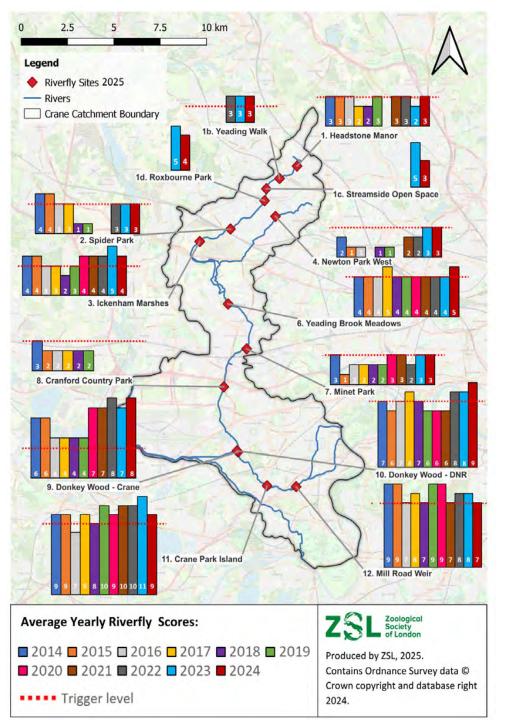


# Why does monitoring matter?

How do we know if these projects are working? Now + in the future ..

#### **Good monitoring:**

- Ensures projects deliver intended benefits
- Informs maintenance and adaptive management
- Builds evidence for future design and funding
- Engages and empowers local communities (even if it is sometimes chucking it down with rain!)



That's where citizen science comes in...



# Citizen Science Data in the Crane

- Over a decade of monthly RMI monitoring across the catchment
- Skilled volunteers as long-term data collectors – outfalls, voles, invertebrates, water quality, hydromorphology ...
- Expanding to track multiple parameters in freshwater restoration projects

# **Case Study 1: Spider Park River Restoration**



Project Location: Spider Park (Bridgewater Road	Watercourse: Yeading Brook West (part of the	Led by: London Borough of Hillingdon and
Fields), Ruislip, London Borough of Hillingdon	River Crane catchment)	Zoological Society of London
		Funders: Crane Valley Partnership (Thames Water
		Initiative) and HS2
Project Start Date: January 2025	Total Cost: £137k	Project Length: ~250m
		Volume flood storage created: 1846m3
Project Completion Date:	Restoration Techniques:	Monitoring Activities:
- Construction works completed April 2025	- Re-meandering of channel	- RMI monthly monitoring
- Planting completed May 2025 with additional	- Creation of a two-stage channel (TSC)	- MoRPh CSci hydrogeomorphological
planting day September 2025	- Terrestrial vegetation clearance	monitoring (before and after surveys)
	<ul> <li>Marginal vegetation planting and seeding</li> </ul>	- Fixed-point photography
	- Addition of woody debris/deflectors	- Public perception survey
	- Addition of gravel	





We have the experts, training, skilled volunteers and equipment needed in the Crane already ... so let's make the most of it!



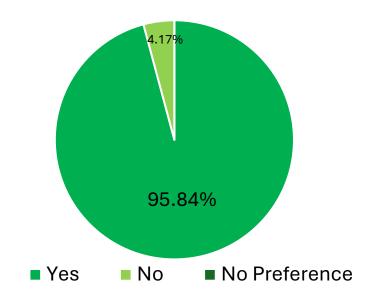
# Spider Park: Integrated Monitoring Approach

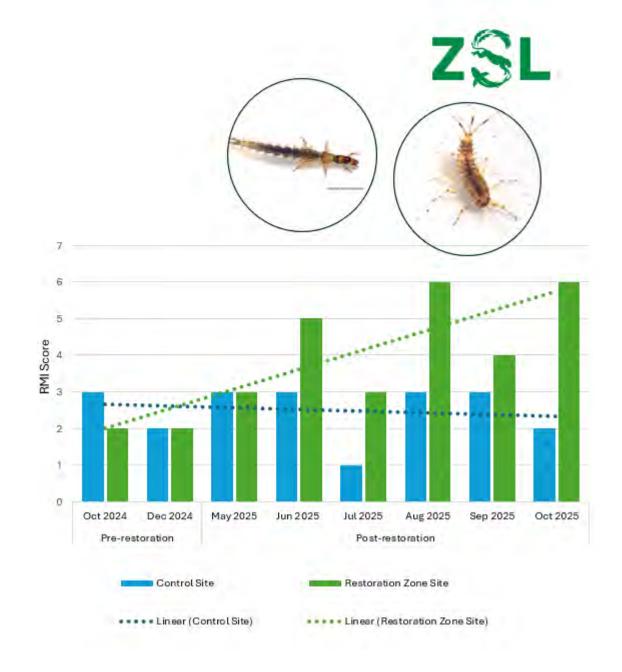
#### To understand our outcomes - BACI:

- RMI: invertebrate monitoring pre- and postrestoration and establishment of new monitoring site in restoration zone.
- MoRPh CSci: physical habitat assessments through MoRPh Blitz events
- Fixed-point photography: visual habitat development
- Community perception surveys: social impact evaluation

# **Spider Park: Early Results**

- RMI scores improved from 2 to 3 pre-restoration to 6 post-restoration! New taxa: mayflies, caddisflies appearing
- MoRPh early signs of improvement in channel habitat complexity and some expected declines resulting from recovery in riparian conditions.
- 96% of people surveyed wanting more projects like this to be carried out; 85% more likely to visit because of the restoration works.



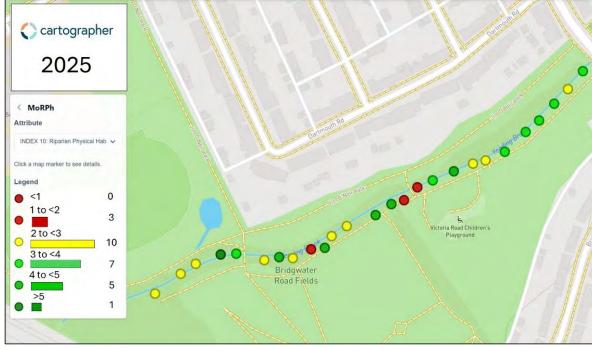


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# Case Study 2: Constructed Wetland Monitoring

- Lots of these being built around London managing surface water and water quality
- Challenge: no standard citizen-science wetland monitoring method and often no follow up monitoring of whether these are actually working!
- Developed Constructed Wetland Monitoring Method (CWMM)
- Trialled at Headstone Manor Park, Newton Park, and Chinbrook Meadows

# Wetland Monitoring: How It Works

- Monthly invertebrate and water quality sampling at the 3 wetlands by trained volunteers
- Adapted RMI scoring for wetland taxa
- Ammonia and phosphate measured using Hanna Checkers
- Fixed-point photographs of the site before sampling
- Data shared via Padlet and Google Sheets



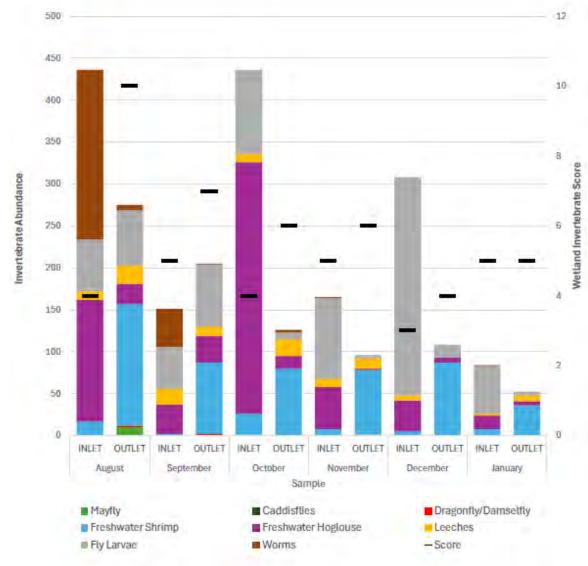
# Wetland Monitoring: Results & Insights

BUG WORT-



- Higher outlet scores show improved water quality @ Newton Park & Headstone
- Greater invertebrate diversity corresponded with healthier and better functioning wetland systems
- Safe, repeatable, and scalable approach and helped us gain a better understanding of these types of systems.
- Important because if not managed correctly

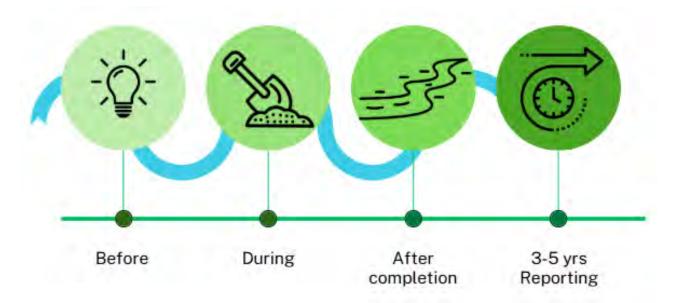
   they can end up leading to more harm
   than good, becoming sources of pollution.



# Why is Follow-Up Monitoring Crucial?



- Benefits evolve over years, not weeks plants establish, sediment moves, species return, habitat changes
- Systematic, multi-parameter monitoring before, during and after restoration will build a strong evidence base and pattern of reporting to inform our work in the future, how we plan to manage them in the future, and how we fund this.

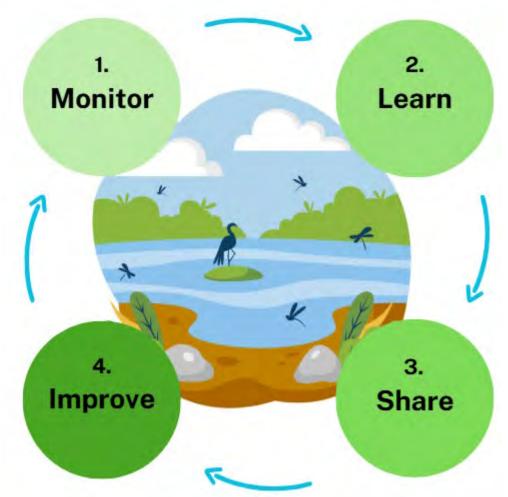


Without ongoing monitoring, we risk missing that full story — and missing opportunities to learn, maintain, and improve future projects.

# The Future: Citizen Crane Restoration Monitoring Task Forces



- Create trained local task forces for multiparameter monitoring
- Coordinate with councils & practitioners preand post-works
- Combine biological, physical & social monitoring methods then we can start effectively tracking restoration targets and impacts.
- Summarise results → case studies → share via RiverWiki/Forums/CVP







### In summary

- Monitoring = proving what works, improving what doesn't, inspiring others to take action ... but we need your help to make it work!
- Join us in building the evidence base for freshwater restoration and make sure we are maximising the benefits to wildlife and people!
- Thank you to all the project partners and volunteers!



# **Upcoming Events!**

#### **London Citizen Science Forum**



Monday 17<sup>th</sup> November 10am – 2pm

ZSL will be hosting the Annual London Freshwater Citizen Science Forum and hope to see you all there!

MoRPh/RMI Blitz



Tuesday 4<sup>th</sup> November 10:30am - 3pm

Queen's Walk - planned river restoration site upstream of Spider Park in Hillingdon!

RMI Training in Hillingdon



Date TBC w/c 24<sup>th</sup> November – Location: Hillingdon

To help recruit new/ refresh existing volunteers to help monitor the restoration site at Spider Park and Stonefield Park.