

# Critical analysis of SESRO's BNG reports

TVERC Autumn Conference

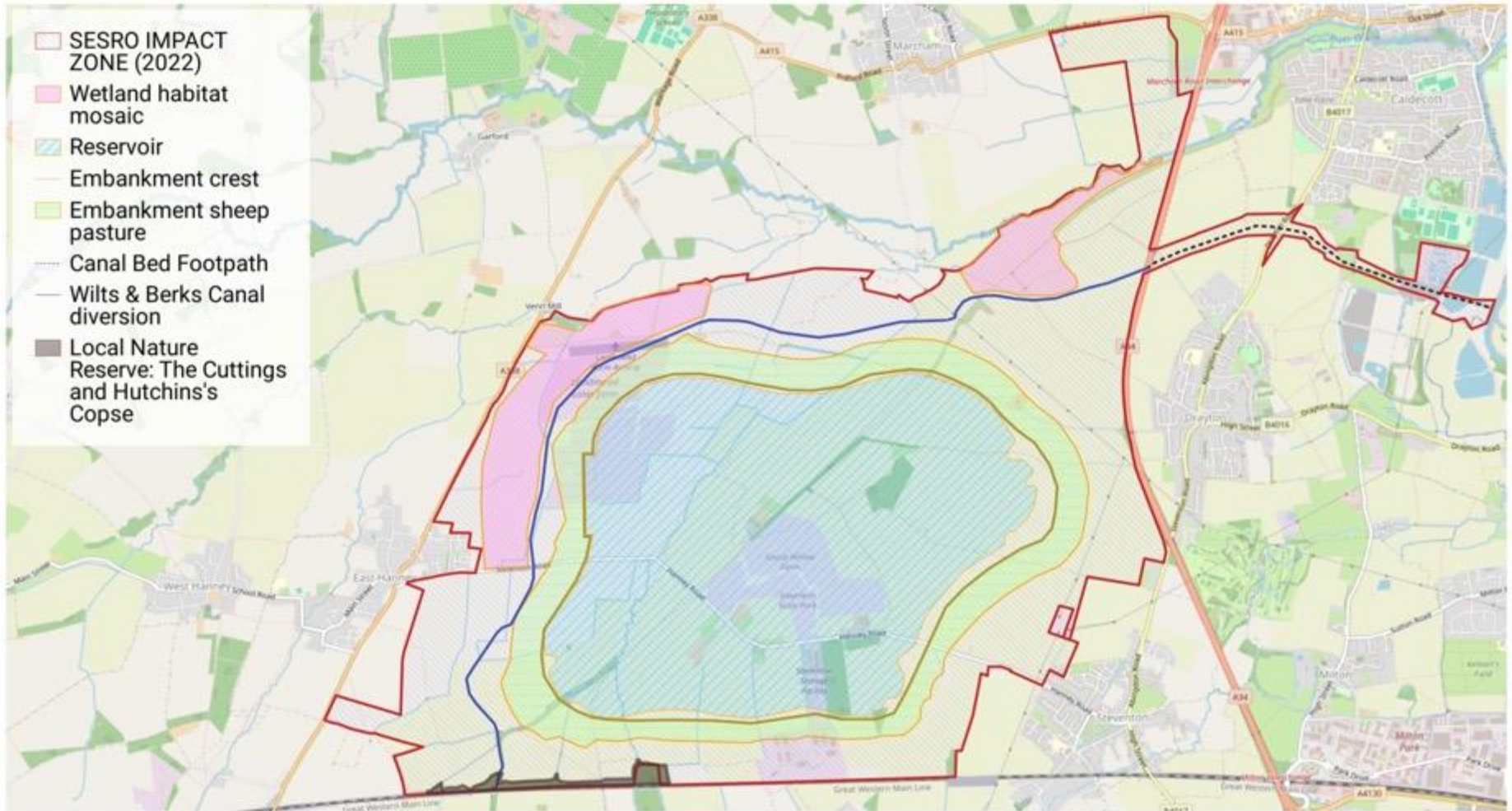


Dr Julian Parfitt  
19<sup>th</sup> October 2024



# SOUTH-EAST STRATEGIC RESERVOIR OPTION (SESRO)

150Mm<sup>3</sup> 10km embankment 600 hectares (Gatwick Airport= 674ha)



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# SESRO's Biodiversity Net Gain Reports

According to SESRO 2022 BNG report:

*“SESRO provides the opportunity to dramatically improve the value of the landscape for biodiversity.”*

{Source: SESRO technical supporting document B6, Biodiversity Net Gain}



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# Biodiversity Net Gain

A developer is required to achieve at least 10% Biodiversity Net Gain (BNG) over 30 years across all three modules.

Defra's Statutory BNG tool produces biodiversity scores where habitat 'distinctiveness' and 'condition' are used proxies for the biodiversity on the ground.



**'Irreplaceable habitat'** (e.g. ancient/ veteran trees, ancient woodland) are included in BNG but cannot be 'traded' and a developer should avoid their destruction or disturbance.

# Ancient / veteran trees on Woodland Trust Ancient Tree Inventory (March 2024)



# SESRO's 2022 BNG results



Area habitats

‘SESRO could achieve an overall **net gain in biodiversity of 33.09% for habitats**’



Hedgerows and lines of trees

‘SESRO could result in a net biodiversity **loss for linear habitat of 21.91%**’



Watercourses

‘SESRO could result in an overall **net gain in river biodiversity units of 16.41%**’

The baseline supporting these estimates involved desk-based analysis + high-level habitat surveys (Nov 2021 and Jan 2022).

A further BNG statement was produced in June 2024 based on the same methodology but using different baseline assumptions, which were not explained.

## Why are SESRO's BNG numbers important at this stage?

- BNG results have been used as an input to best value option appraisal for Thames Water's recently approved WRMP. where the largest reservoir option (150Mm<sup>3</sup>) is now preferred.
- Used in recent public consultations over design choices (rail sidings/ material handling, routing of diverted road and emergency discharge channel etc.,).
- Help with future scrutiny of further SESRO BNG work as a DCO application is put together.

# Work undertaken– March –September 2024

**Habitat surveys** - fieldwork to check UKHab assessments in SESRO 2022 BNG report

- Working with local farmers (SFI, hedgerow condition surveys, field margins)
- ‘Sense-checking’ with real biodiversity measurements: birds, bats + other observations
- Land App used to map the re-assessed baseline habitats, SoPI, notifiable/ protected species.
- BNG recalculated using revised baselines

## **Irreplaceable habitat**

- Survey of ancient/ veteran trees





## Main changes made to baseline habitats

- Added missing hedgerows and ditches
- Applied 2024 hedgerow condition scores
- Reclassified some areas of 'lowland mixed deciduous woodland' as 'wet woodland' or 'mixed scrub'
- Added in 'ecologically valuable line of trees' using results from ancient/ veteran tree survey

## Added in field margins



Reclassified  
solar farm  
habitats  
(previously  
scored as  
'arable')



## Field margin (6m) with Cowslips



## Added buffer strips along watercourses



## SESRO 2022 BNG report: results from reassessment



Area habitats



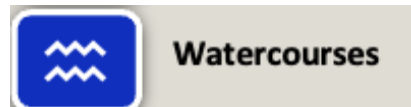
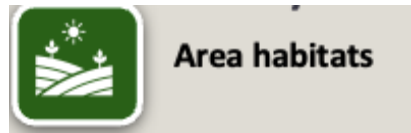
Hedgerows and  
lines of trees



Watercourses

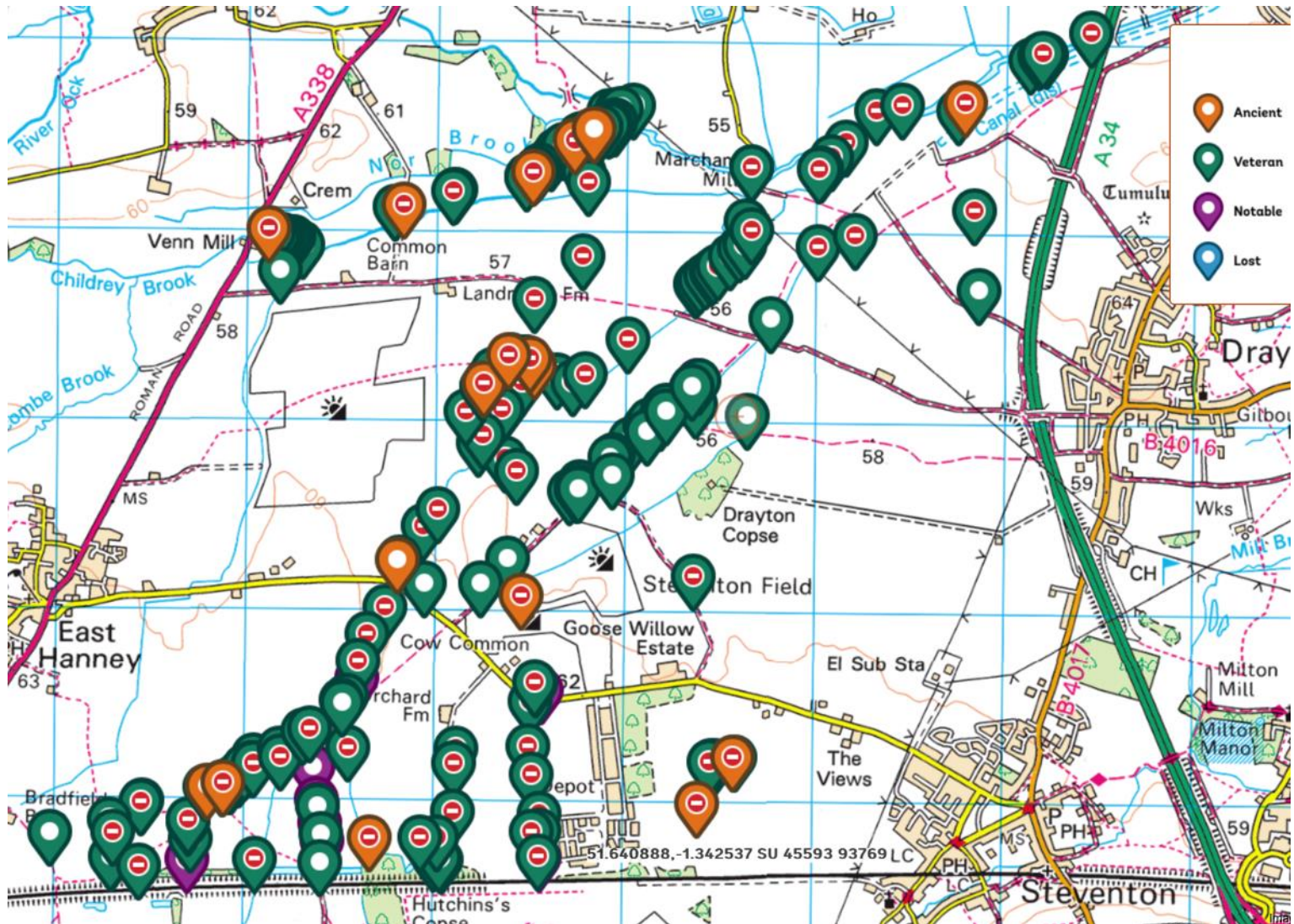
Module	Revised baseline (2024 fieldwork + LandApp )	SESRO 2022 BNG report
BNG area habitat units	+5%	+33%
BNG in hedgerow units	-50%	-22%
BNG in watercourse units	-15%	+16%

# SESRO 2024 BNG report: results from reassessment



Module	Revised baseline (2024 fieldwork + LandApp)	SESRO IMP 2024
BNG area habitat units	<b>-16.9%</b>	+12.5%
BNG in hedgerow units	<b>-13.9%</b>	+15.1%
BNG in watercourse units	<b>-4.7%</b>	+32.9%

# 212 Ancient/ veteran trees validated by Woodland Trust



## Ancient Field Maple on historic field boundary

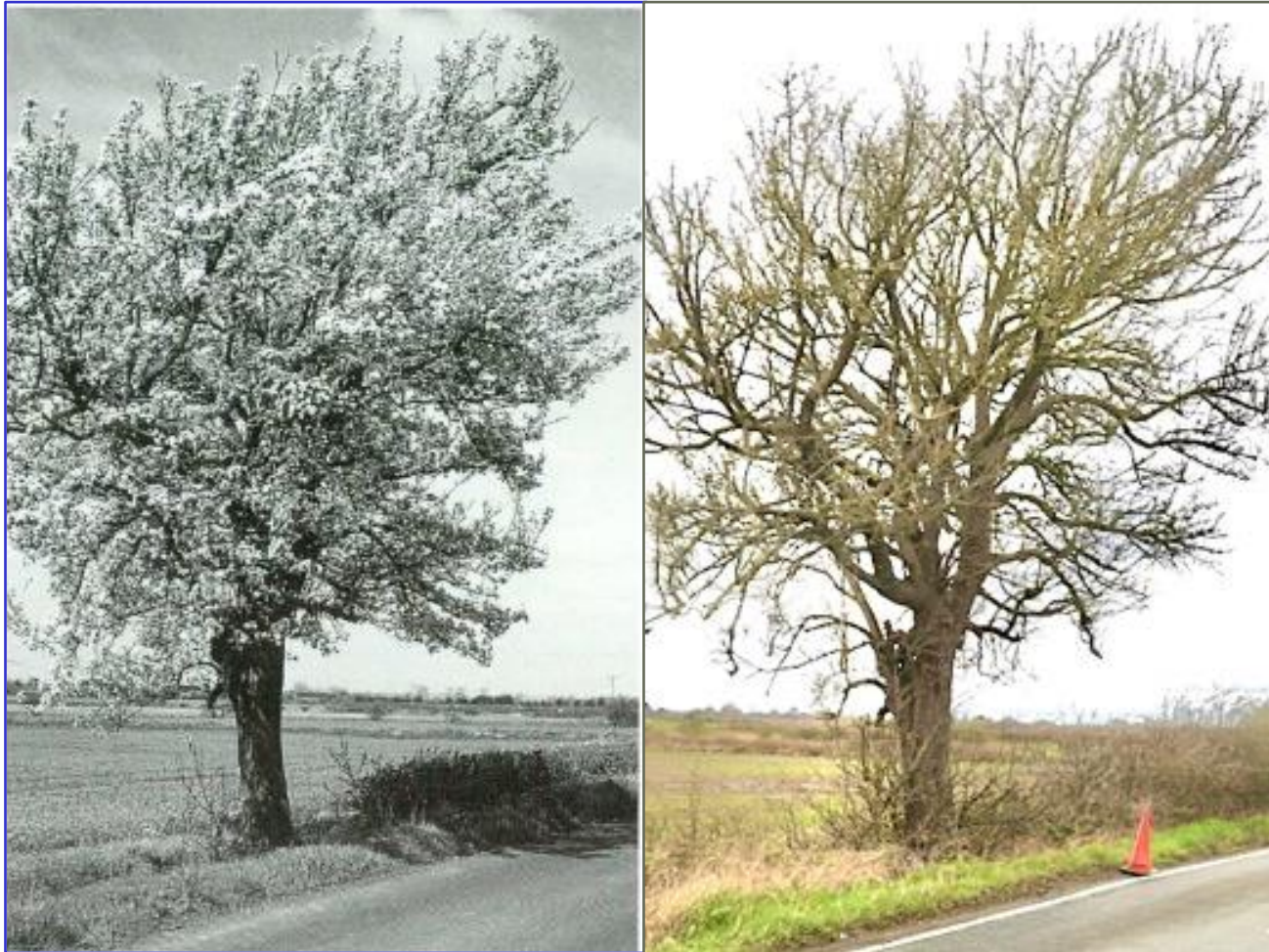


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# The Hanney Road Wild Pear

(1990 and 2024)



# Exploring the Land App maps.....

<https://go.thelandapp.com/map/6603f1b6bd59ac9168fec8f7>

[SESRO Trees on Ancient Tree Inventory](#)

[Ancient Tree Inventory](#)