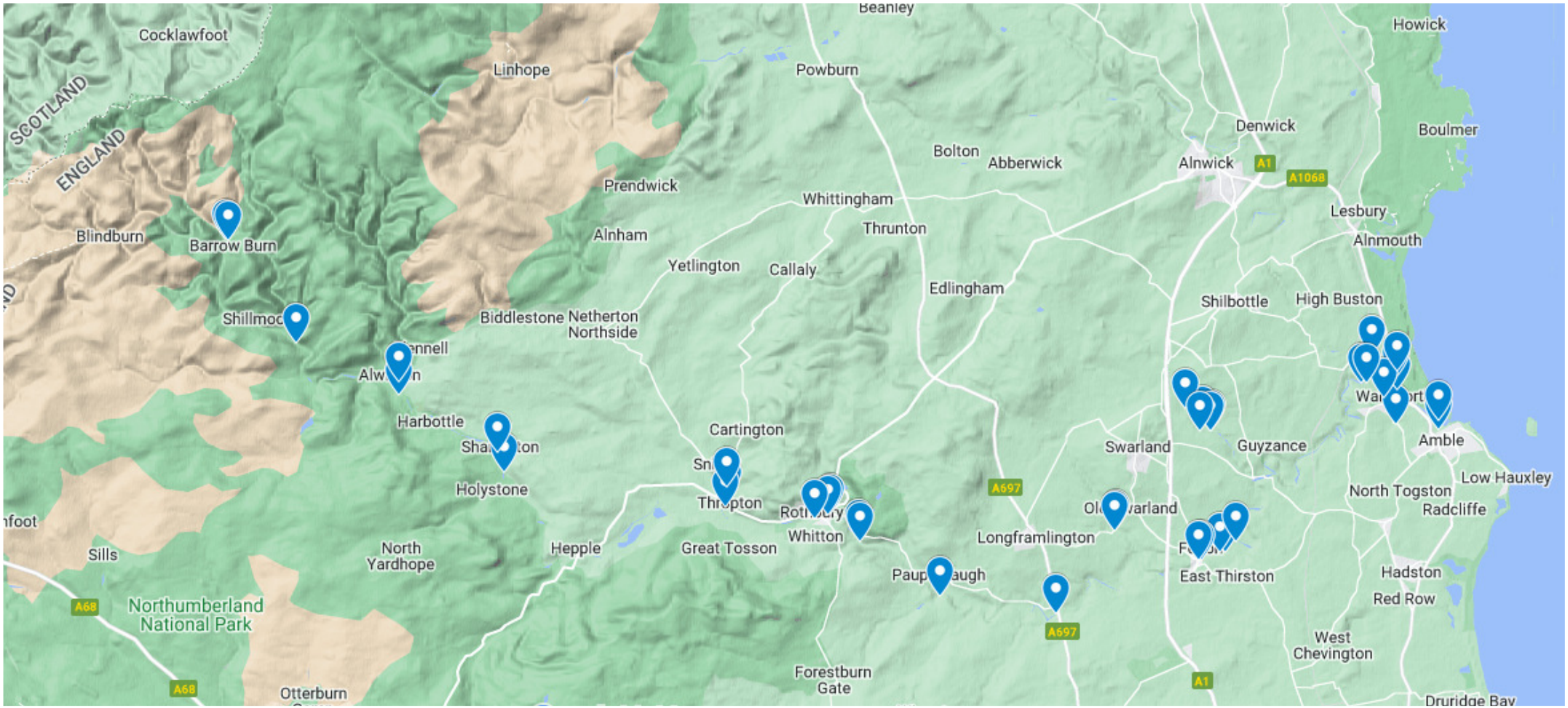
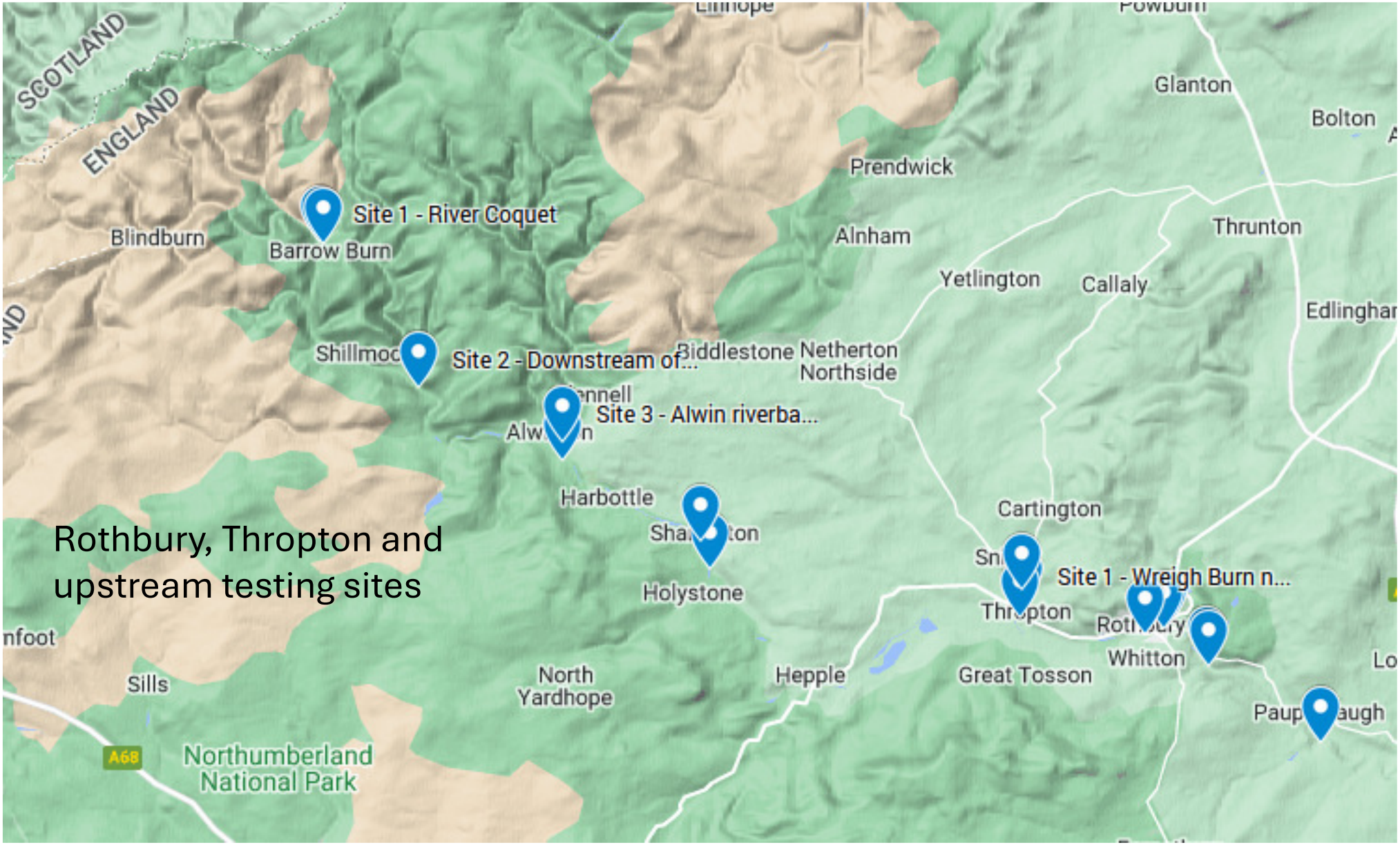
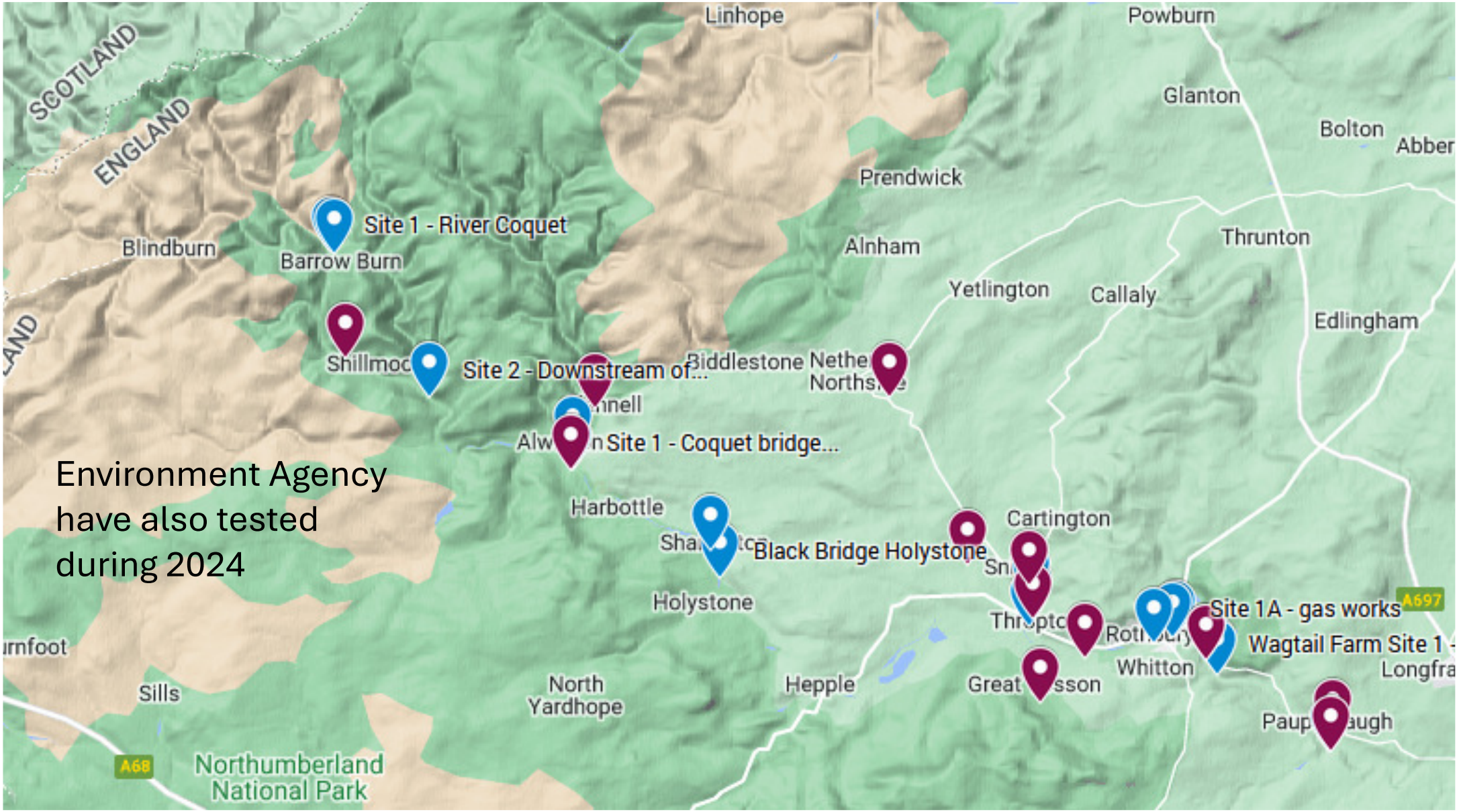
Coquet River Action Group

CRAG – where our groups are testing

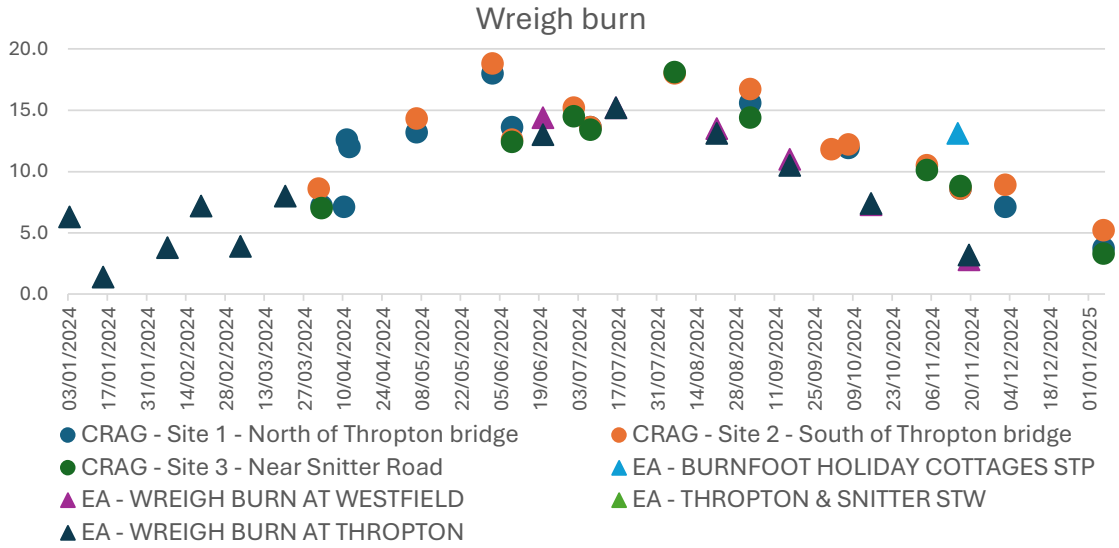


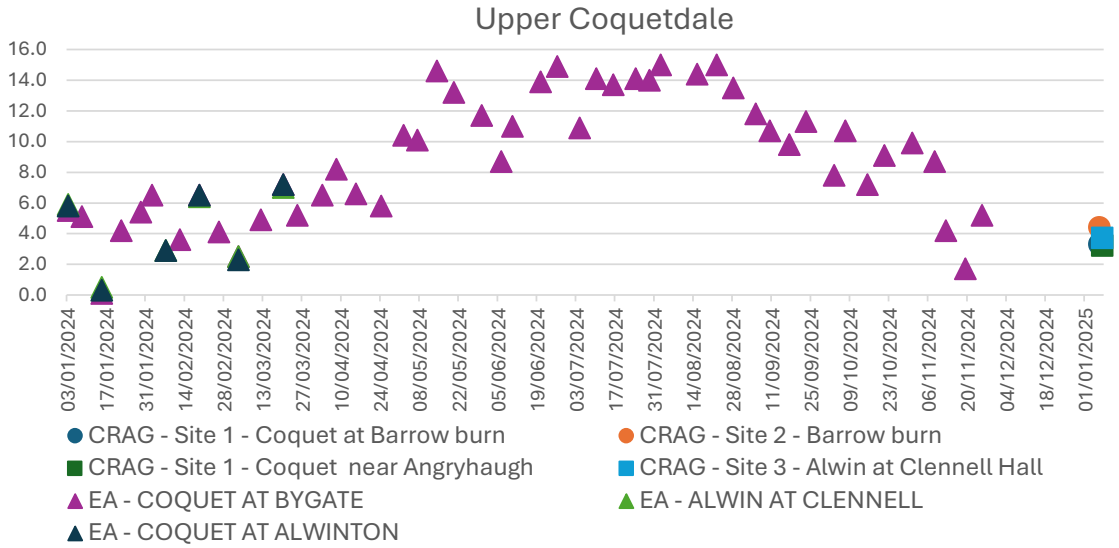

Rothbury, Thropton and upstream testing sites
SCOTLAND
ENGLAND
Site 1 - River Coquet
Barrow Burn
Blindburn
Site 2 - Downstream of...
Site 3 - Alwin riverba...
Harbottle
Holystone
Prendwick
Alnham
Glanton
Bolton
Thrunton
Yetlington
Callaly
Biddlestone
Netherton
Northside
Cartington
Site 1 - Wreigh Burn n...
Thropton
Whitton
Great Tosson
Hepple
North Yardhope
Sills
A68
Northumberland National Park

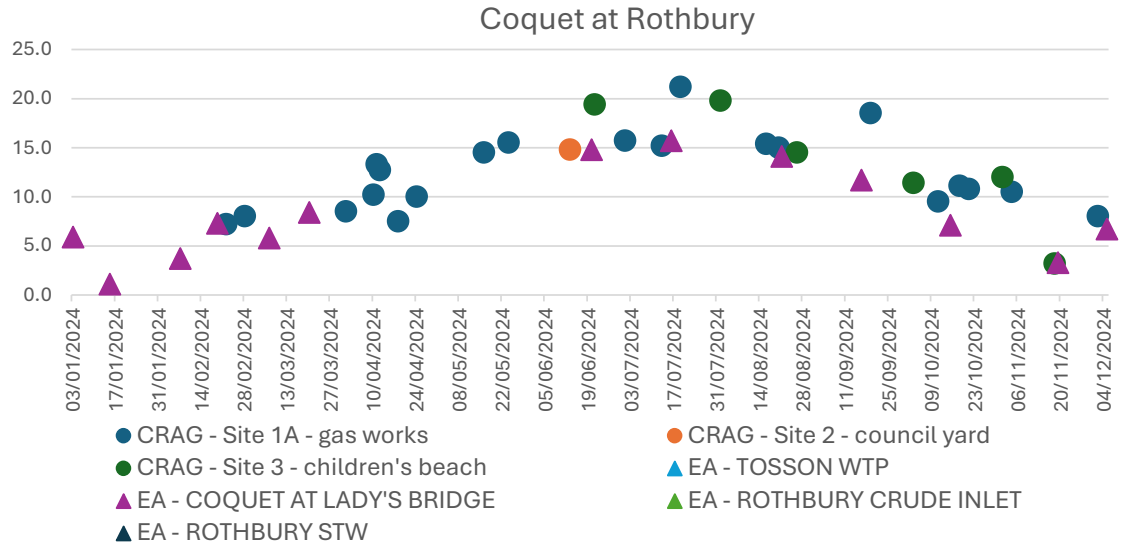

Linhope
Powburn
SCOTLAND
ENGLAND
Glanton
Bolton
Prendwick
Site 1 - River Coquet
Blindburn
Barrow Burn
Alnham
Thrunton
Yetlington
Callaly
Edlingham
Site 2 - Downstream of...
Biddlestone
Site 1 - Coquet bridge...
Environment Agency have also tested during 2024
Harbottle
Cartington
Black Bridge Holystone
Holystone
Site 1A - gas works
A697
Wagtail Farm Site 1
Whitton
Sills
North Yardhope
Hepple
A68
Northumberland National Park

Temperature

- 15C in summer Upper Coquetdale
- 19-20C in summer at Rothbury and Thropton

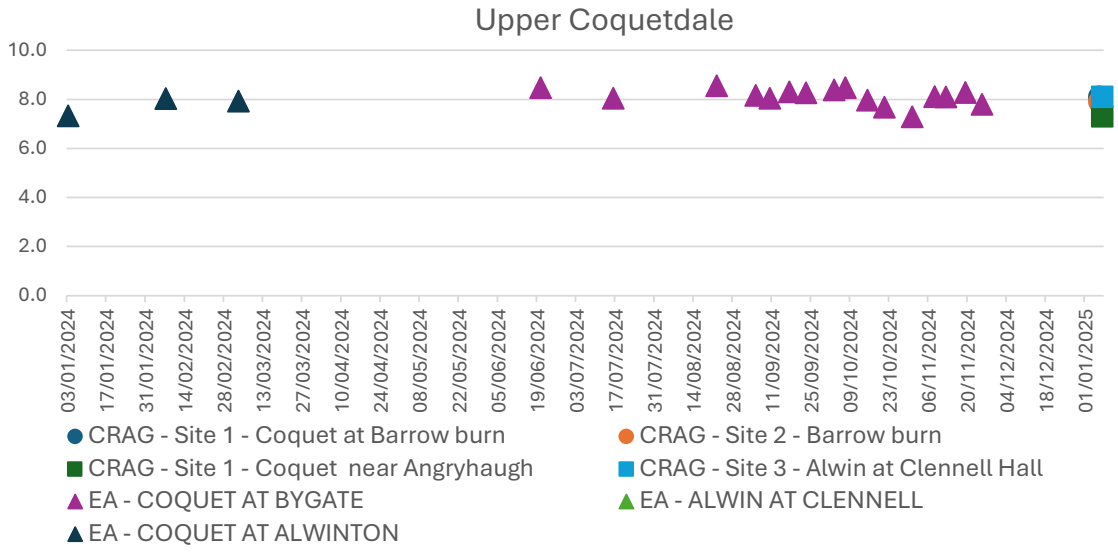


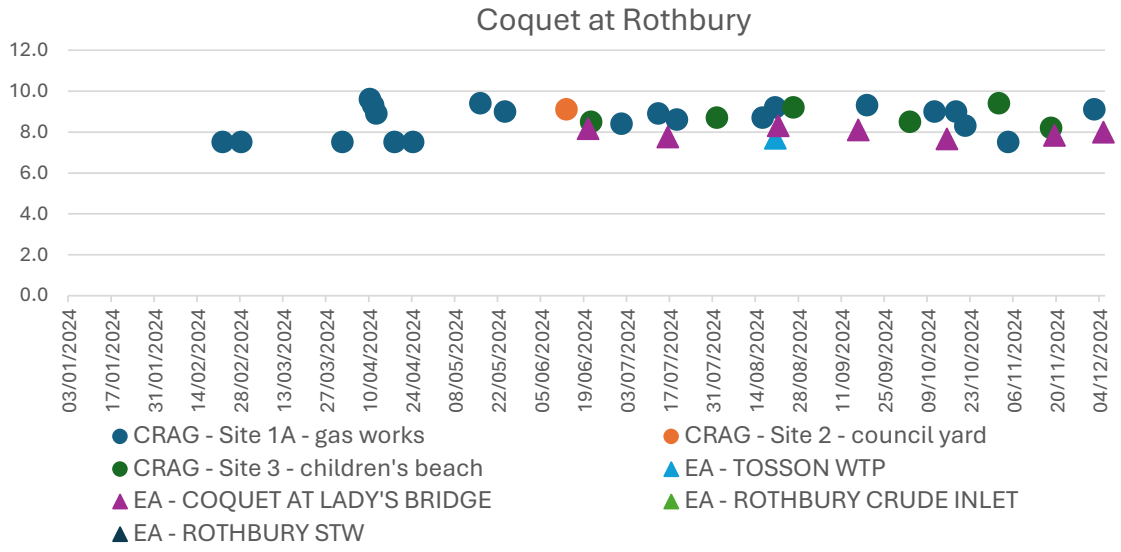




pH

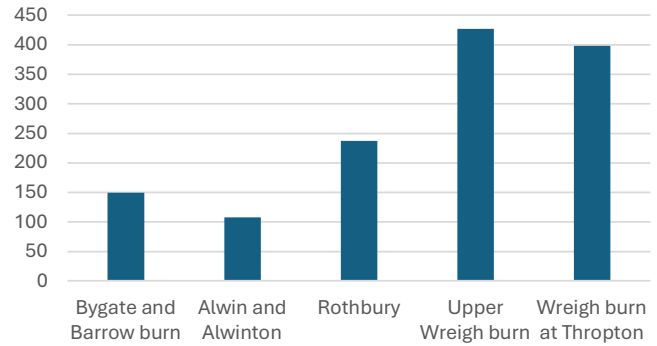
- pH = 8 in Upper Coquetdale and Rothbury
- Possible decrease in pH over the year on the Wreigh burn

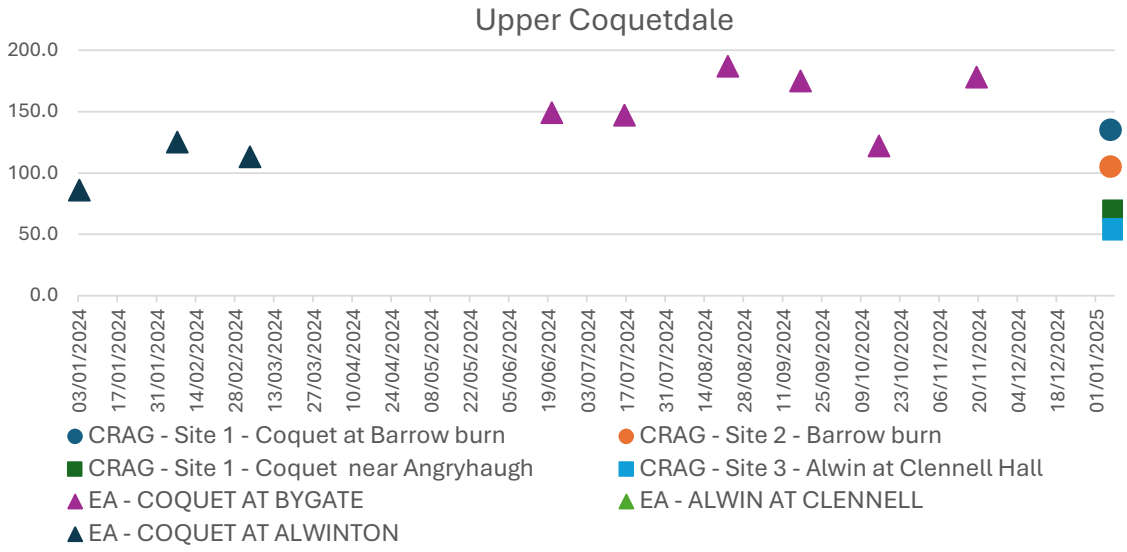


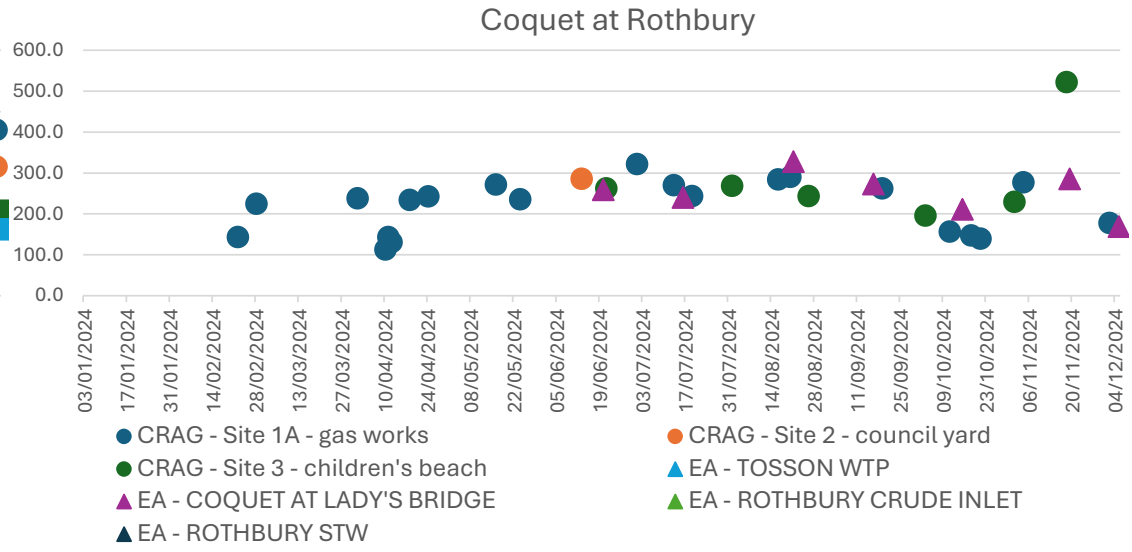


Electroconductivity

- The amount of dissolved minerals
- Warkworth ~ 300, Tyelaw burn ~ 700-800

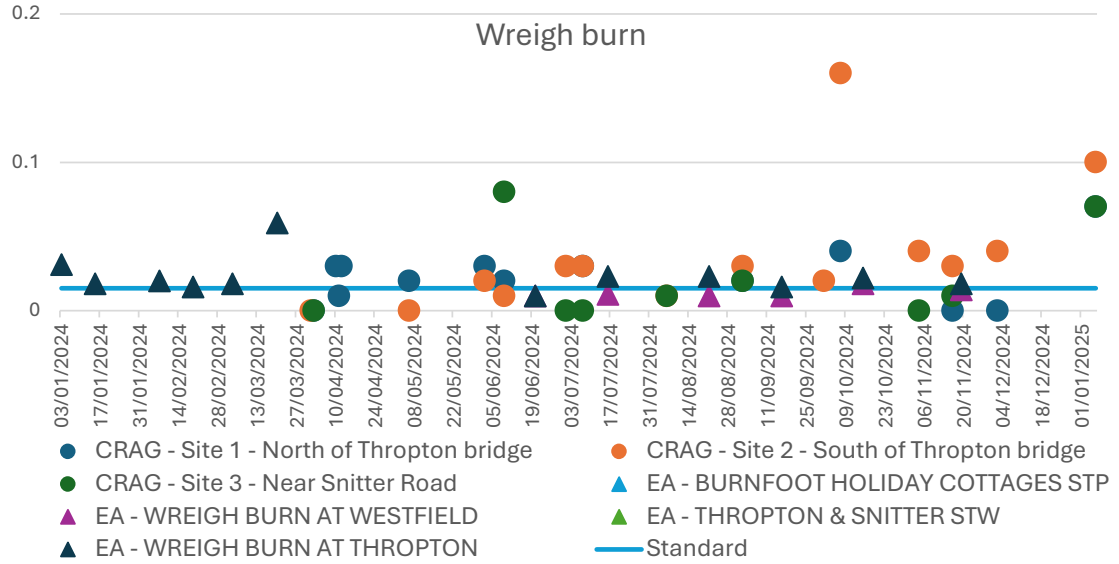


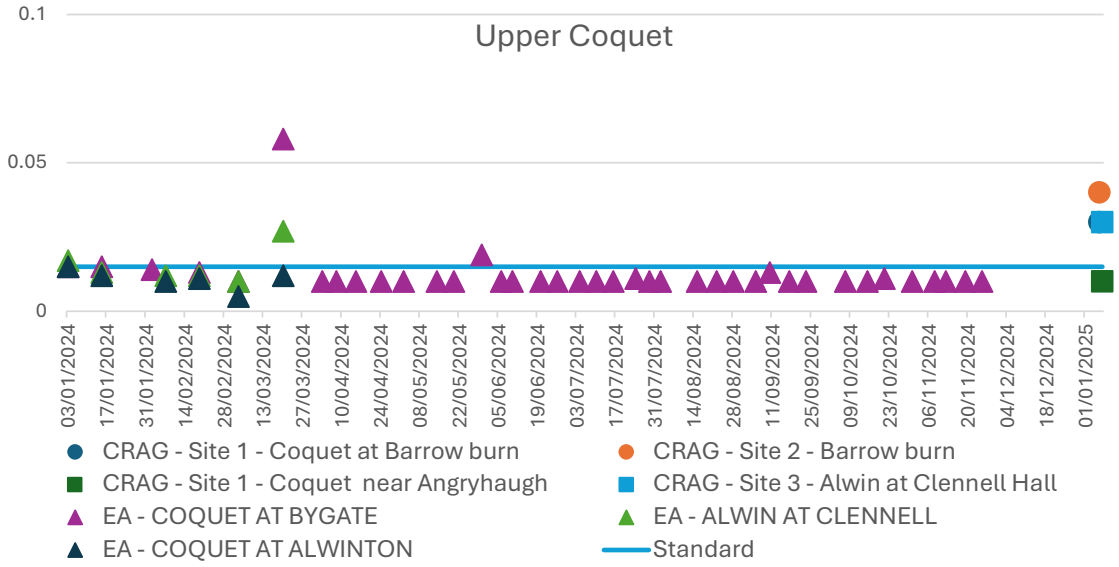


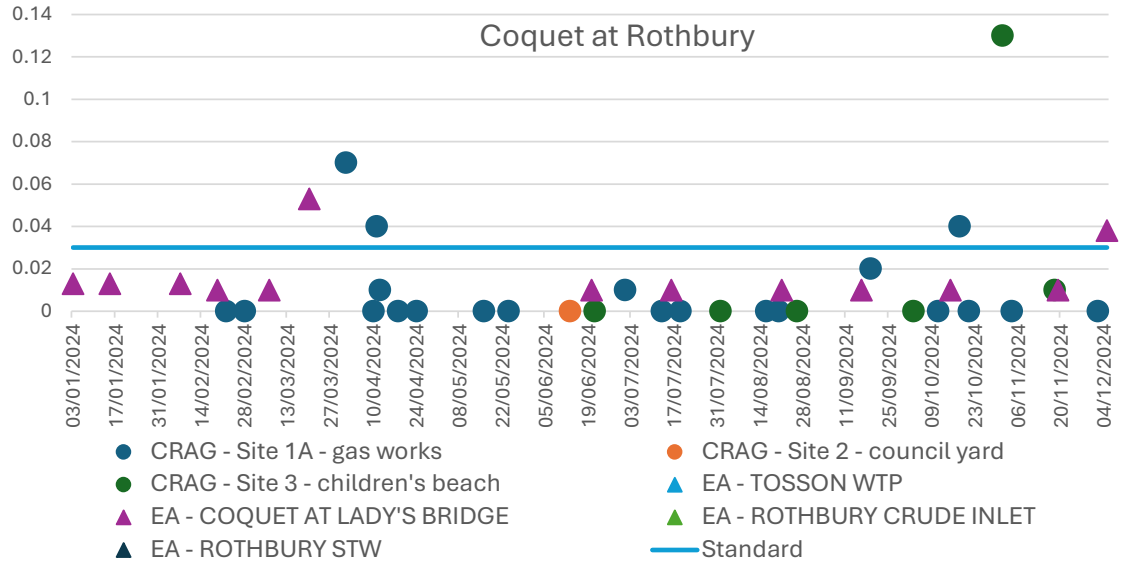


Orthophosphate as P

- Upper Coquetdale and Rothbury mostly okay, but for a couple of days
- Wreigh burn appears high on most test days
- CRAG measurements tend to be higher than EA measurements??

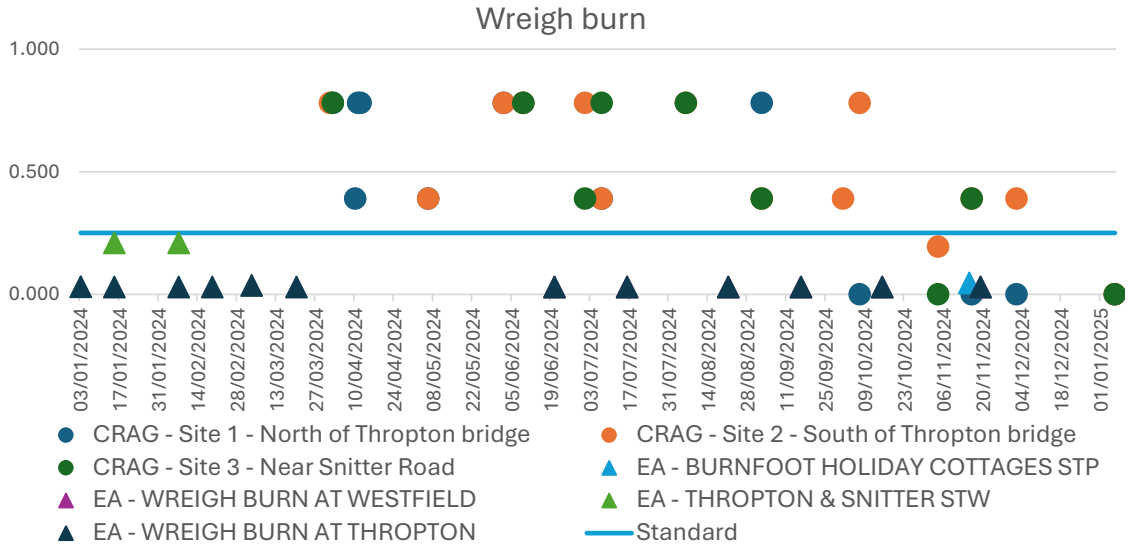


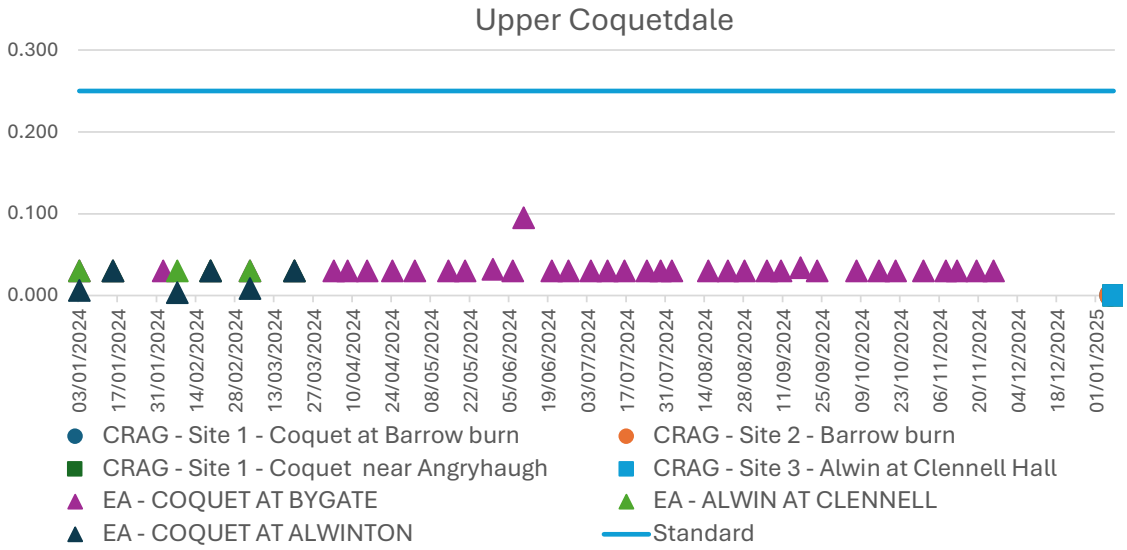


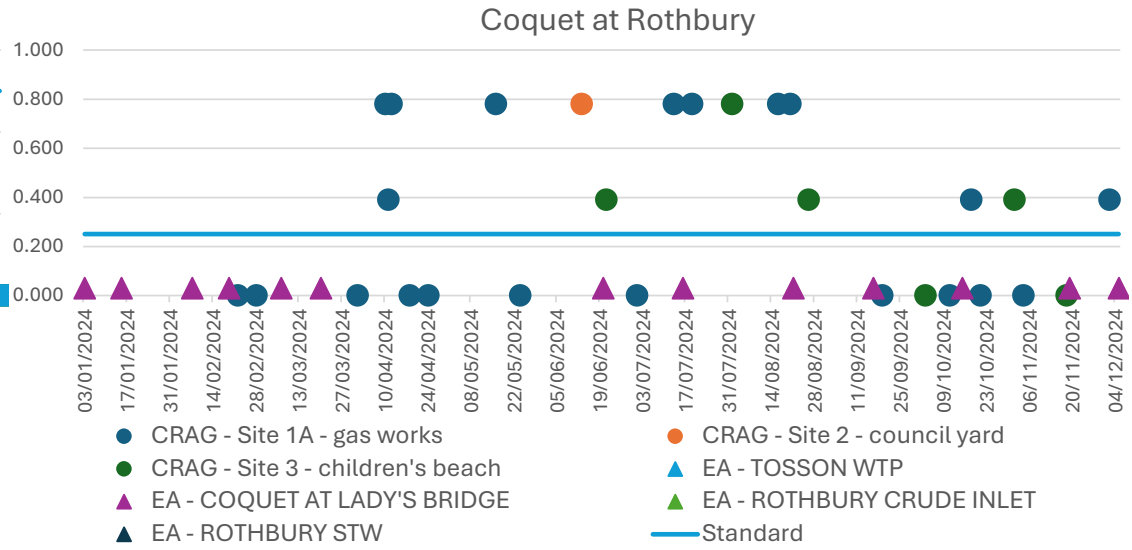


Ammonia as N

- Again, CRAG values tend to be higher than EA measurements
- Highest EA measurements are at Thropton and Snitter STW
- All values below WFD standard but many above SSSI standard

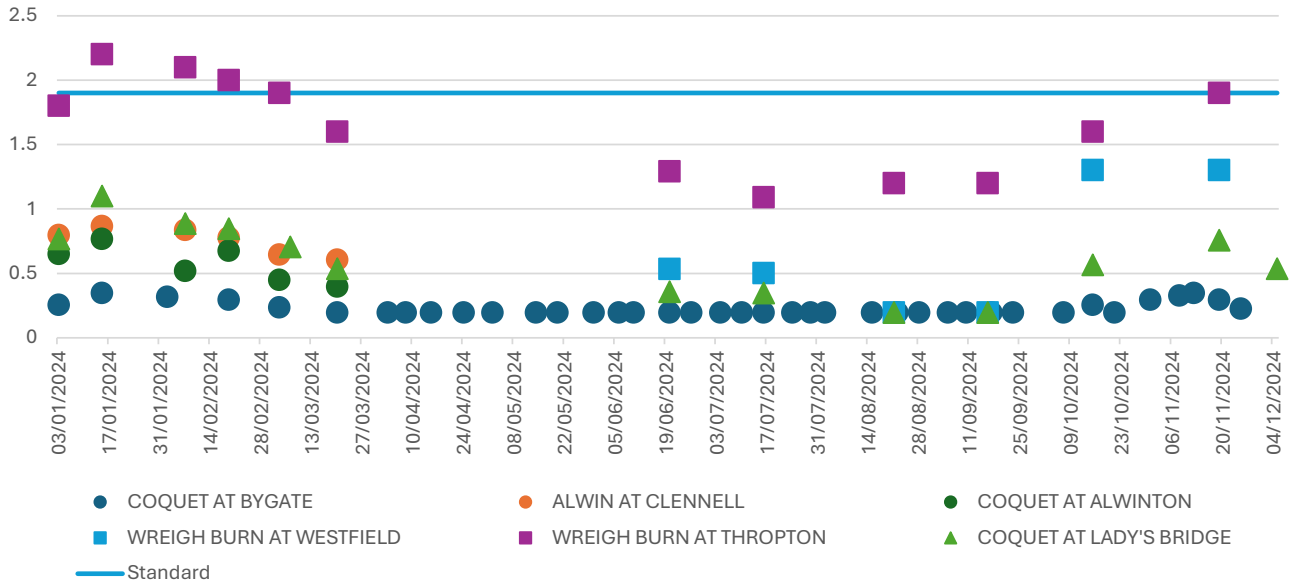






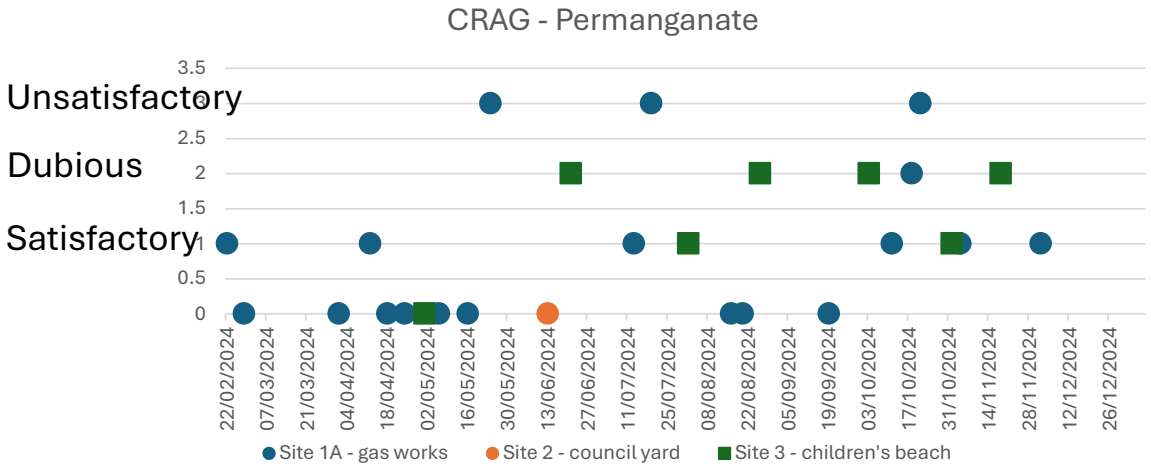
Nitrate as N (EA measurements only)

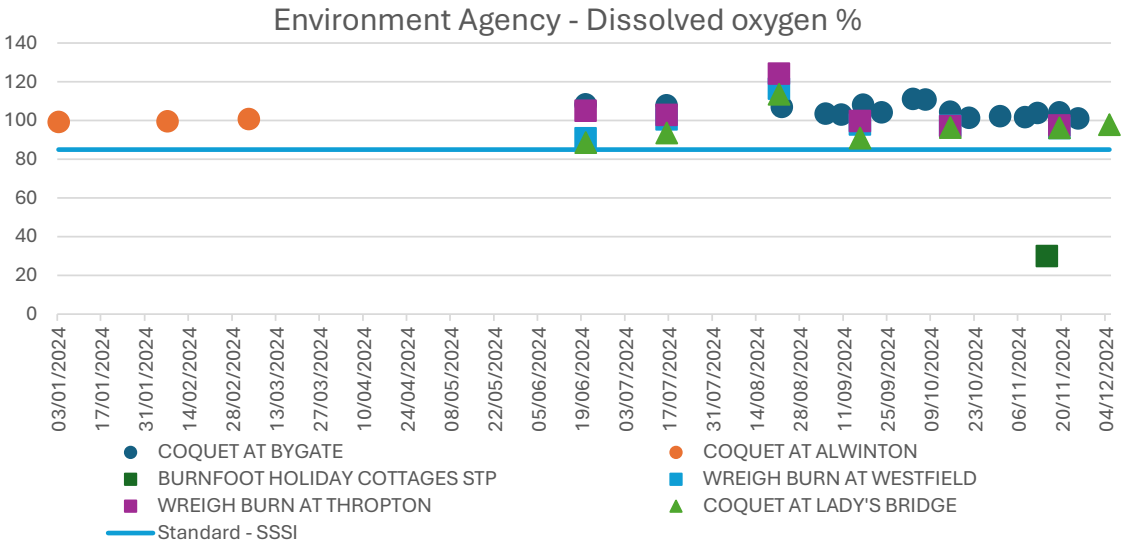
- Circles - Bygate and Alwinton
- Squares – Wreigh burn (Highest values – Wreigh burn at Thropton)
- Triangles - Rothbury
- Interesting seasonal pattern (agricultural fertilization pattern??)

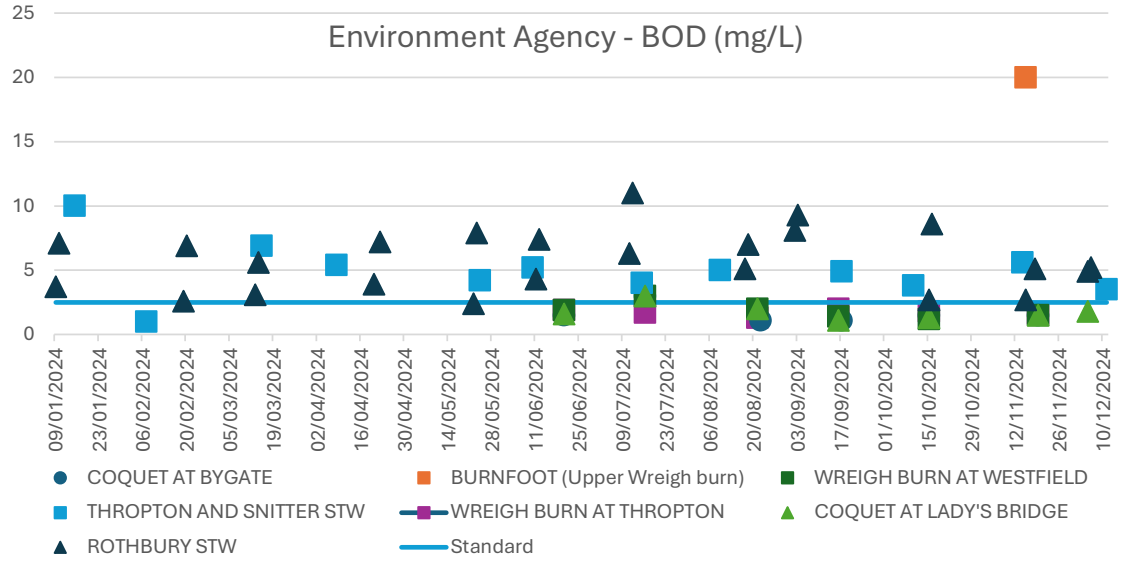


Oxygen

- DO% - high value is good – SSSI = 85%
- BOD – low value good – SSSI – 2.4mg/L
- BOD values at STWs are poor
- Lady's bridge value on standard line, perhaps confirm high permanganate
- Odd EA value at Burnfoot late Nov.

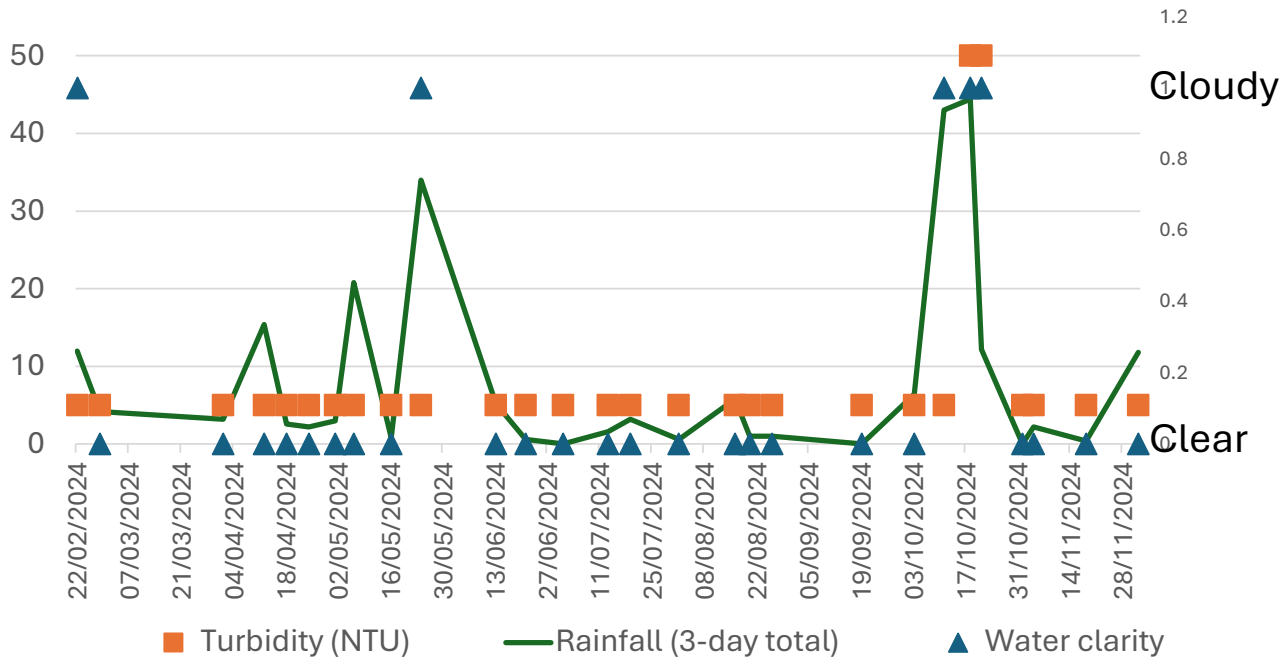






Turbidity

- Strong relationship between Turbidity measurements and water clarity description
- Strong relationship between these and rainfall



Summary of chemical measurements

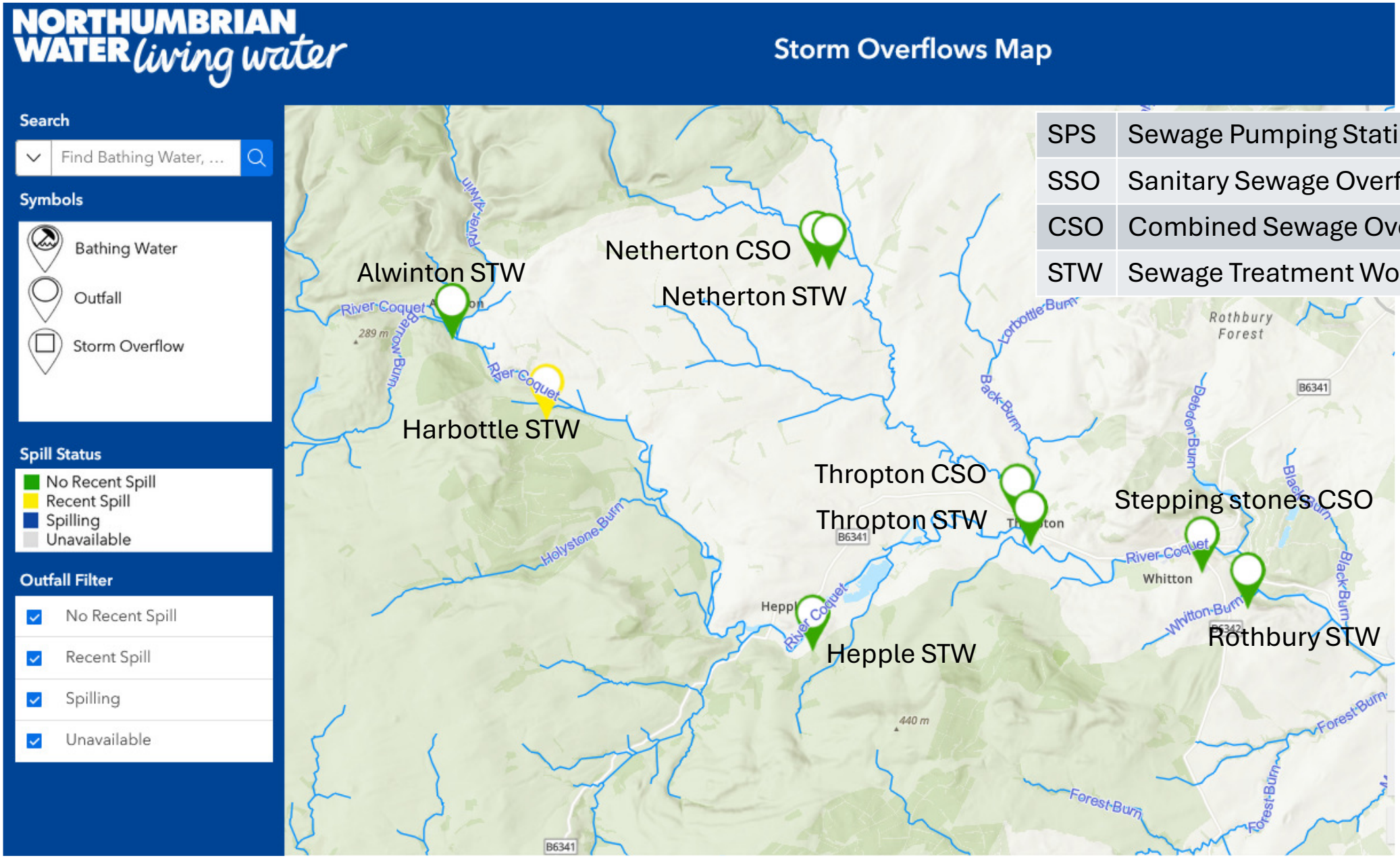
Point sources for poor quality water are:

- All STWs (Rothbury and Thropton & Snitter) – BOD

Water bodies with problems:

- Wreigh burn – phosphate and nitrate (agricultural run-off and/or STW) (and single poor oxygen values at Burnfoot)
- Rothbury – occasional high phosphate and borderline oxygen
- Upper Coquetdale – occasional high phosphate

Need to understand why CRAG phosphate and ammonia values are generally higher than EA values.


NORTHUMBRIAN WATER living water
Storm Overflows Map
Search
Find Bathing Water, ...
Symbols
Bathing Water
Outfall
Storm Overflow
Spill Status
No Recent Spill
Recent Spill
Spilling
Unavailable
Outfall Filter
No Recent Spill
Recent Spill
Spilling
Unavailable
SPS Sewage Pumping Station
SSO Sanitary Sewage Overflow
CSO Combined Sewage Overflow
STW Sewage Treatment Works
Alwinton STW
Netherton CSO
Netherton STW
Harbottle STW
Thropton CSO
Thropton STW
Stepping stones CSO
Hepple STW
Rothbury STW
River Coquet
Holystone Burn
Back Burn
Lorbottle Burn
Debden Burn
Black Burn
Whitton Burn
Forest Burn
Rothbury Forest
Whitton
B6341
289 m
440 m

Sewage discharges in 2023

Site name (EA)	Spills	Total discharge hours	Average hours per spill	EDM operational percentage
ALWINTON STW	16	77.0	4.8	97.81
HARBOTTLE STW				0.00
HEPPLE STW	9	23.5	2.6	99.60
NETHERTON CSO	15	24.7	1.6	99.80
NETHERTON STW				0.00
THROPTON CSO	26	398.6	15.3	19.45
THROPTON AND SNITTER STW	59	801.2	13.6	100.00
STEPPING STONES CSO	40	265.0	6.6	99.89
ROTHBURY STW	29	351.3	12.1	98.93

Harbottle and Netherton STWs and Thropton CSO monitors appeared to be working last week

Review of water quality testing strategy:

- Continue to monitor STWs, particularly Rothbury and Thropton & Snitter
- Does Wreigh burn drain arable farms? If so, perhaps add nitrate tests for Wreigh burn testing and attempt to tie nitrate levels to fertilizer application
- Perhaps spread the Wright burn test sites out

CRAG future plans:

- E. coli testing (we need a local volunteer to sort logistics)
- Riverfly monitoring (we need a local volunteer to organise event)
- Invasive weeds survey and removal (we need a local volunteer to sort logistics)

Other possible opportunities:

- Bathing water status application for Amble
- Mink raft surveying with the Northumberland Wildlife Trust