



Drinking water 2019

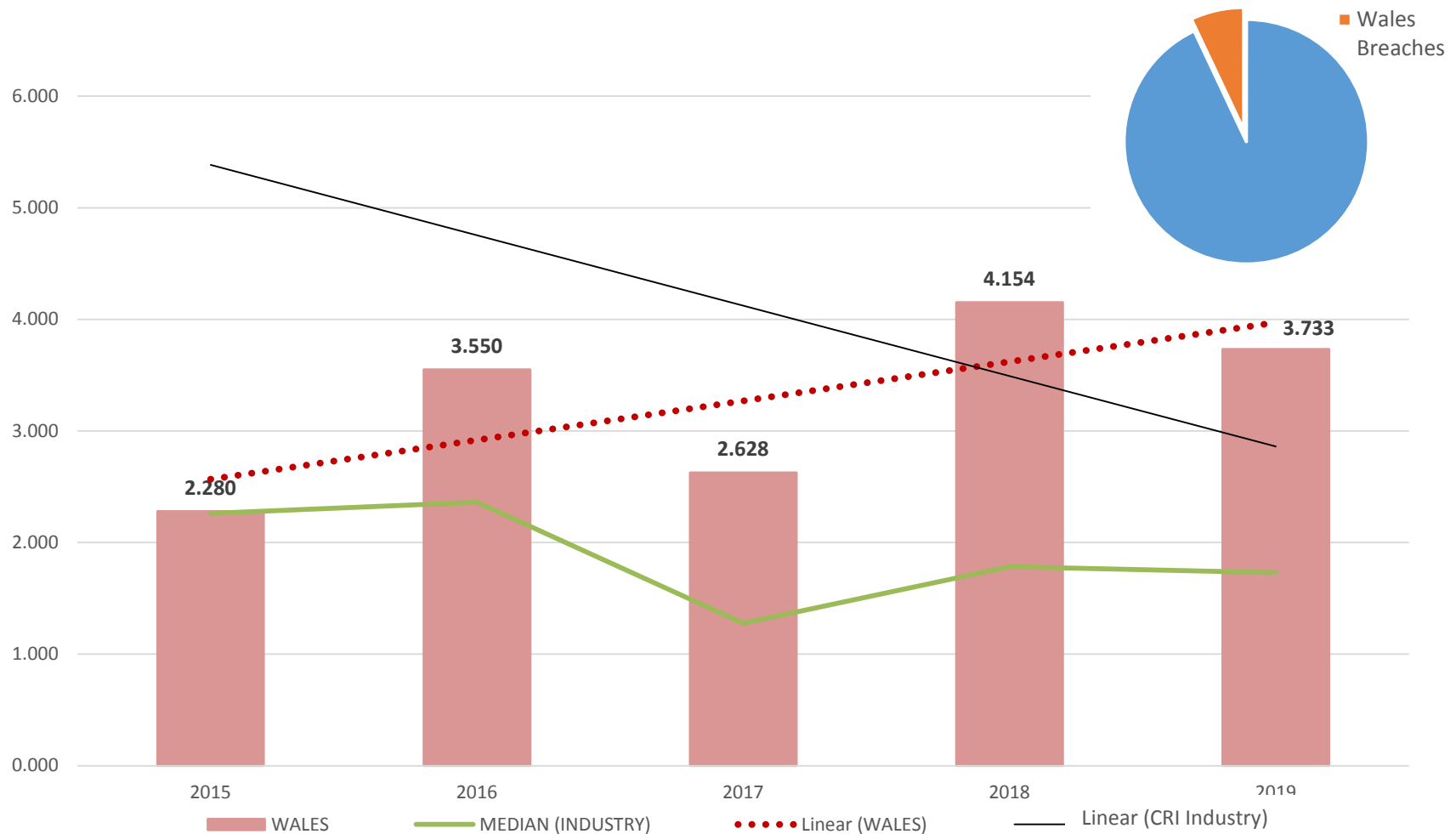
Marcus Rink
Chief Inspector of Drinking Water

Overview

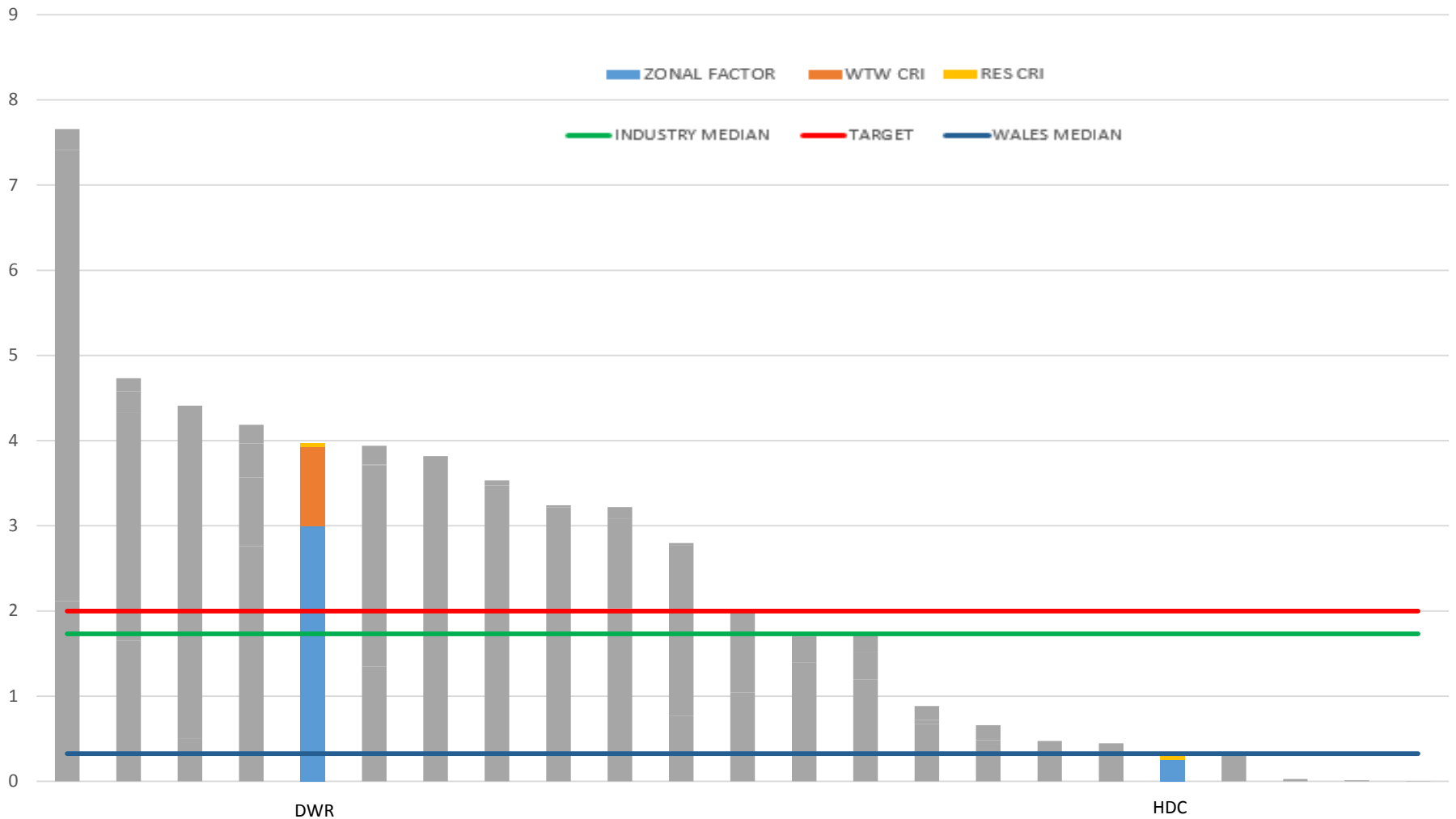
- CRI
- ERI
- Discolouration & Contacts
- Audits
- Recommendations
- Regulatory Innovation
- Network Information Systems

Drinking water quality

– CRI for Wales 3.73 (Industry CRI 2.87)



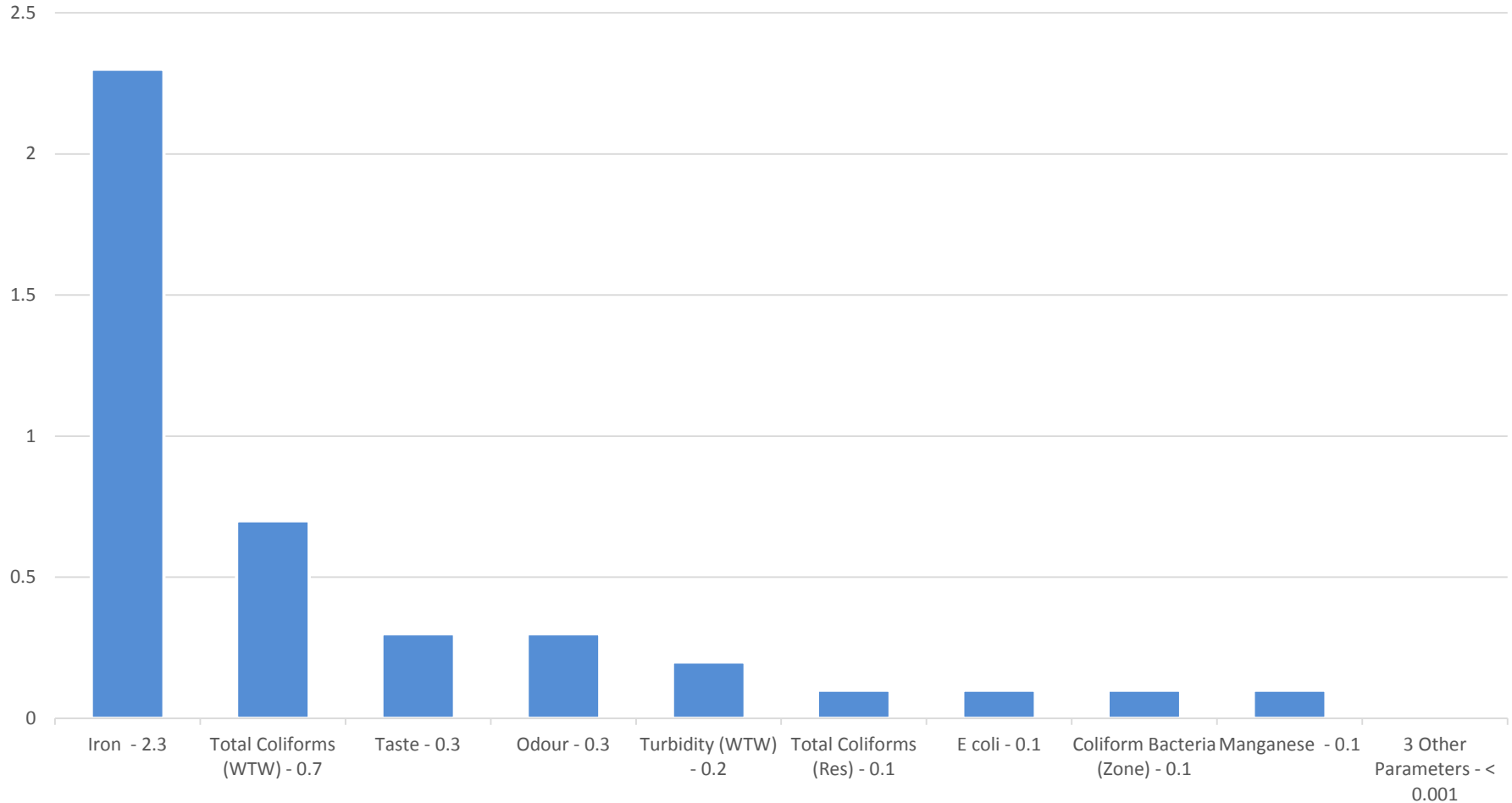
Company CRI for Wales



DWR

HDC

CRI Profile in Wales



July 2020

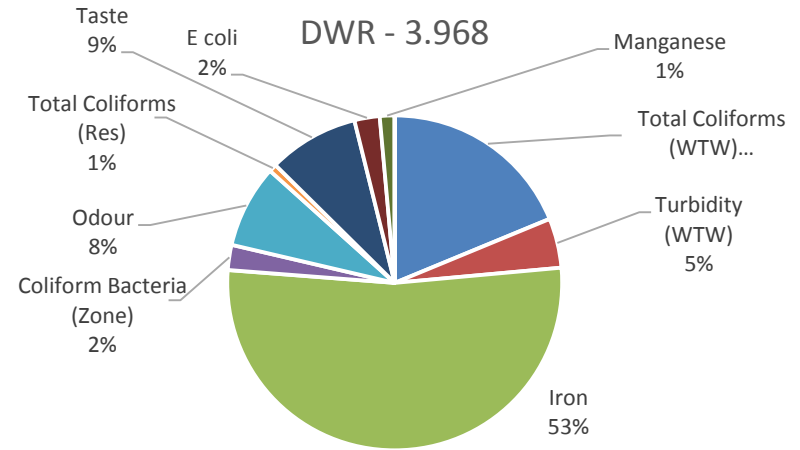
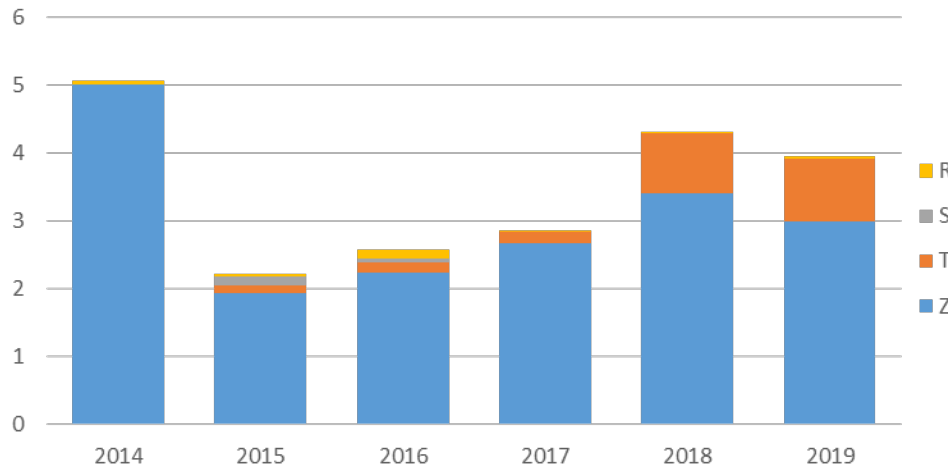


Drinking water quality

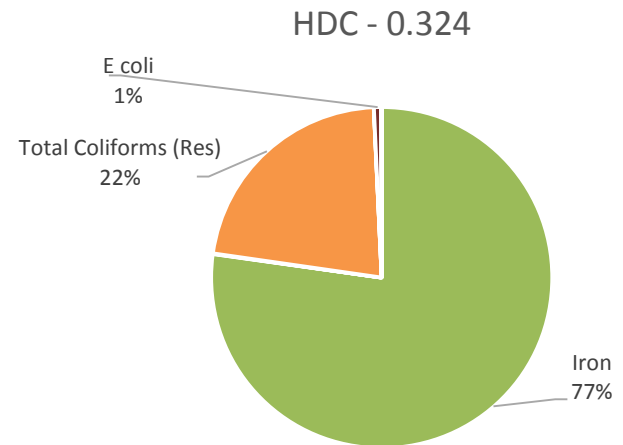
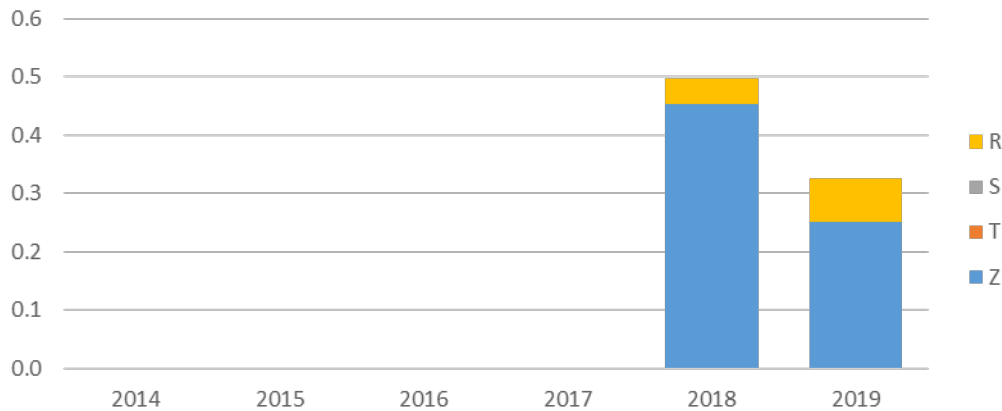
- Key Compliance Highlights:
 - 0 *E.coli* & 1 Coliform failure in WTWs
 - (1 DWR)
 - 2 *E.coli* & 8 Coliform Failures in SRs
 - (1 *E. coli* & 4 coliforms, DWR & HDC)
 - Iron
 - (14 DWR, 1 HDC)
 - Taste and Odour
 - (9 odour & 1 Taste, DWR & HDC)
 - lead, nickel
 - (1 & 2 DWR)
 - Cyanide (DBP National)

Company CRI

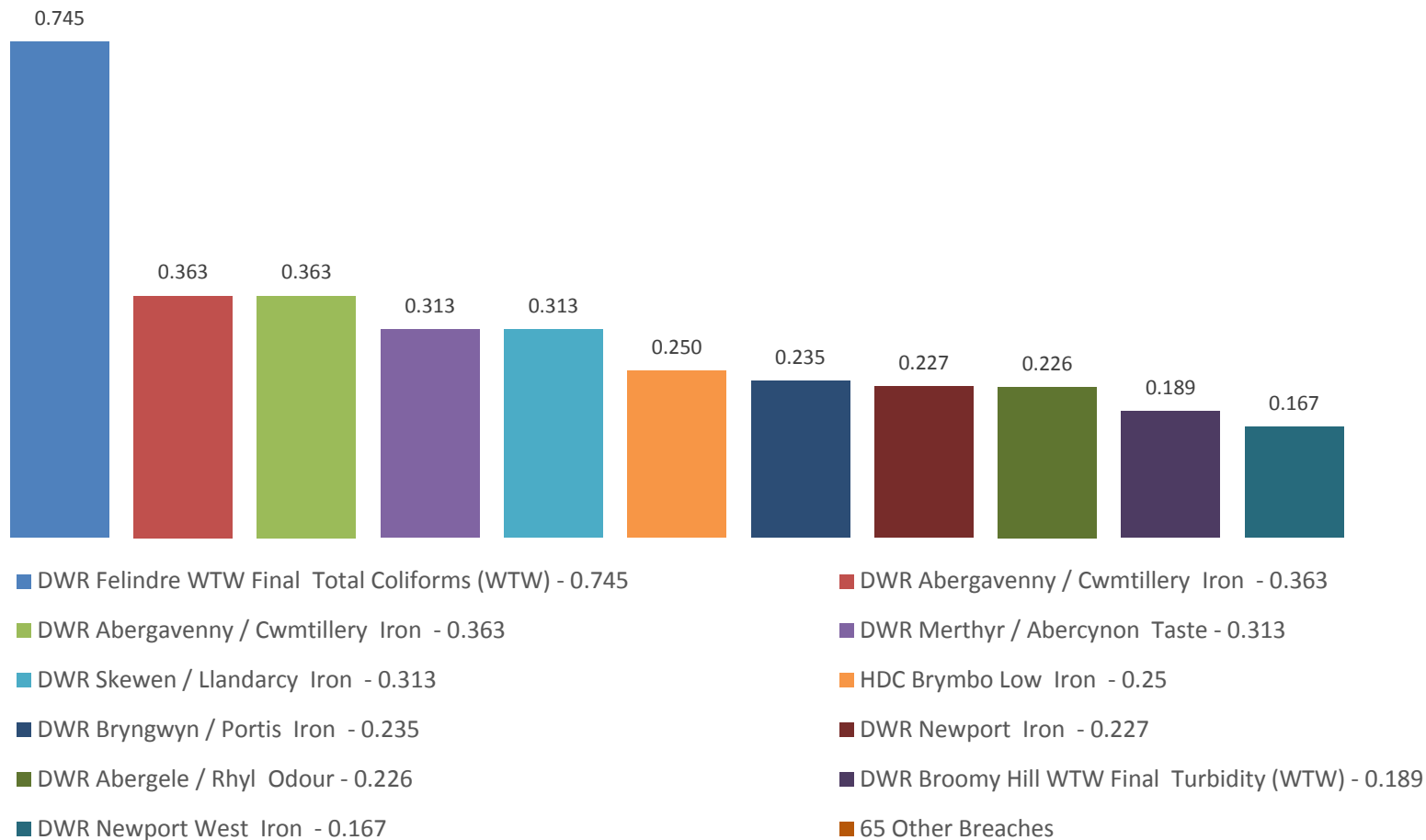
DWR



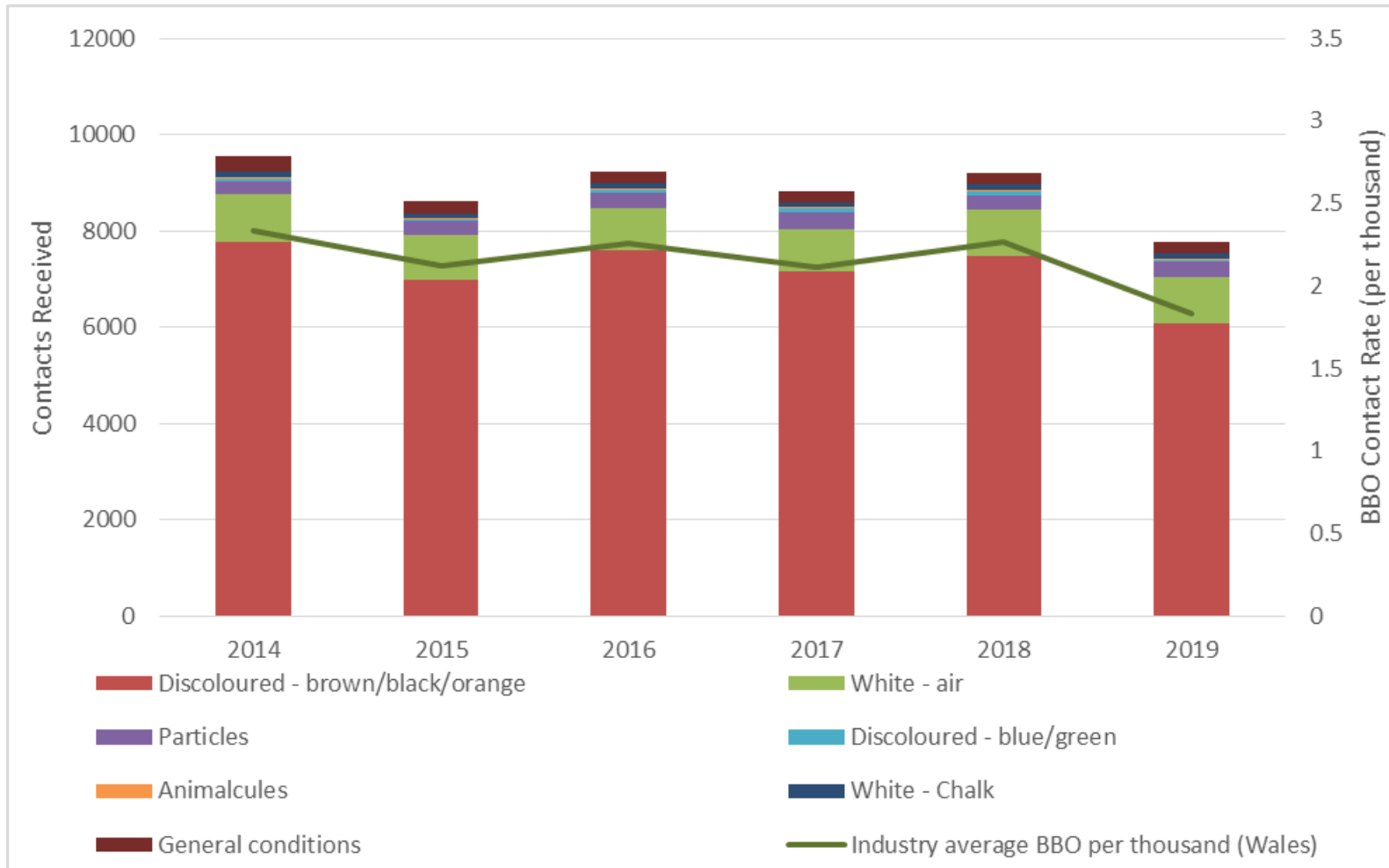
HDC



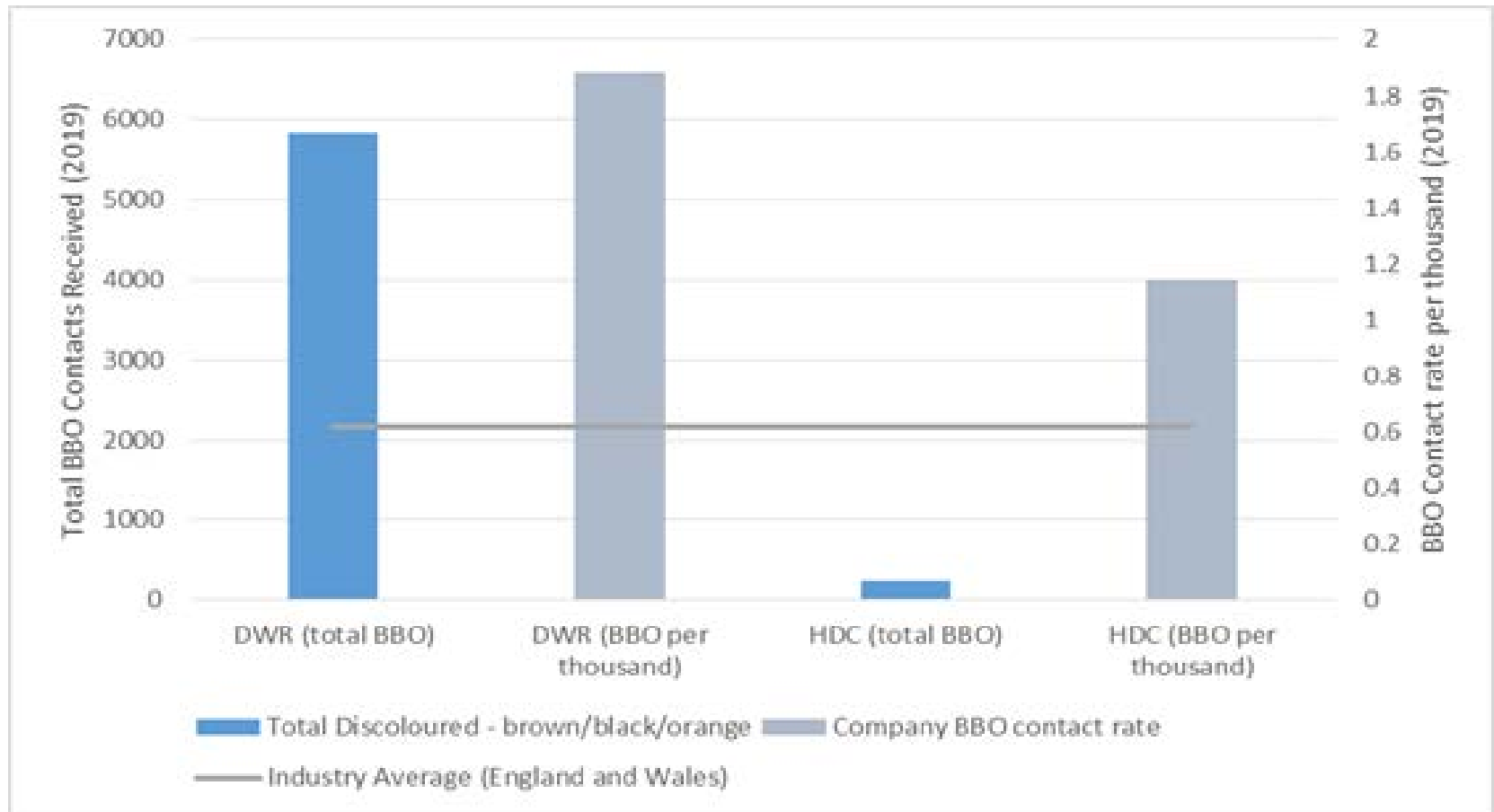
Top CRI Contributing Failures



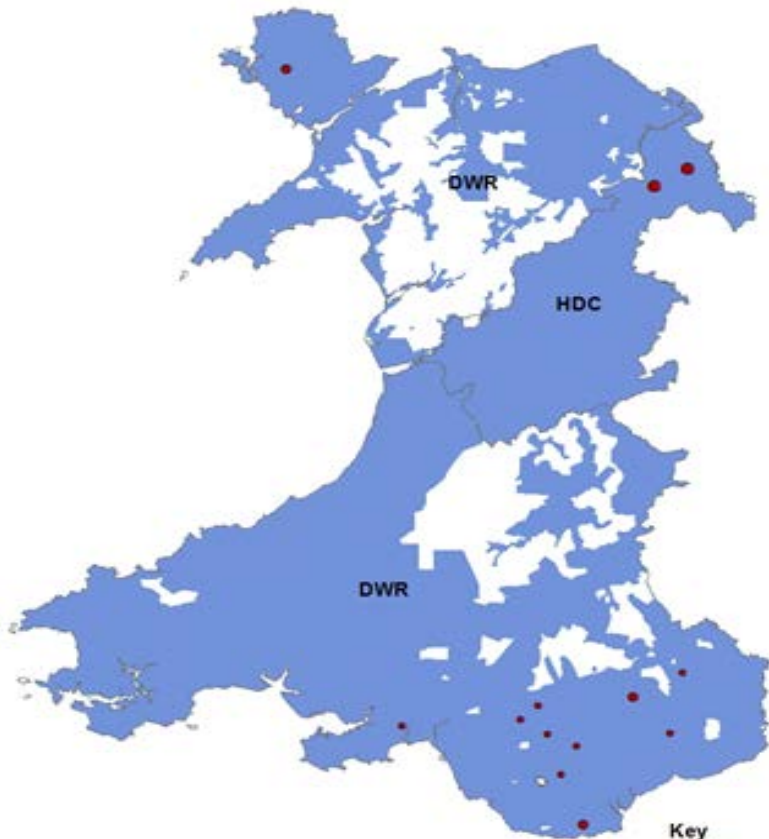
2014-2019 Appearance Contacts - Wales



Discolouration Contacts

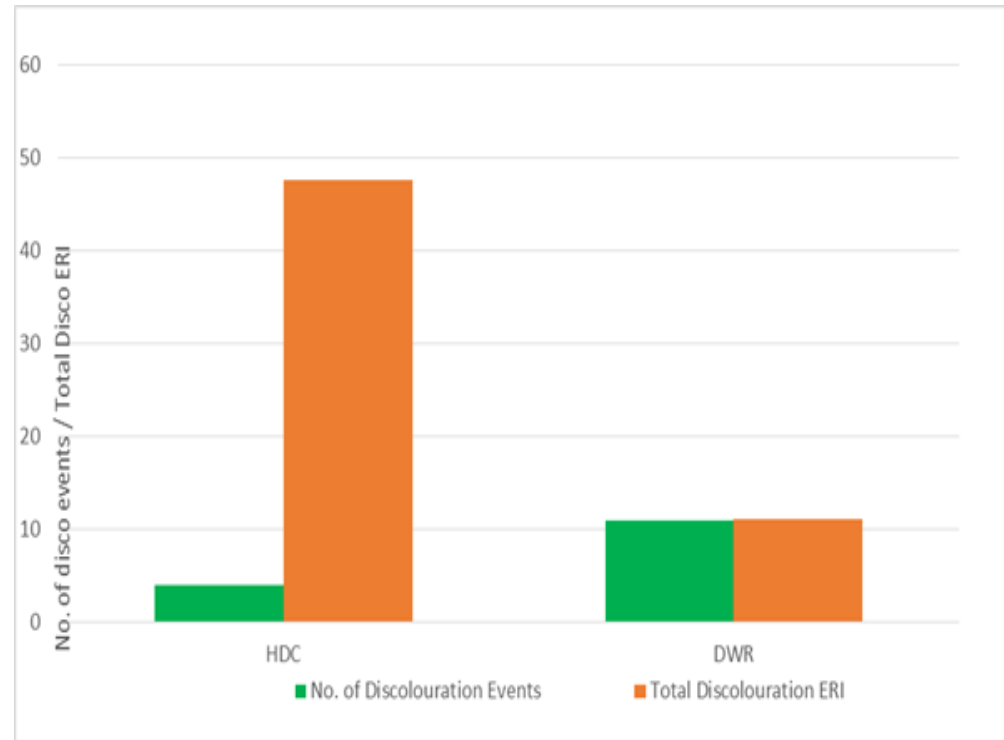


Discolouration Events & ERI Score



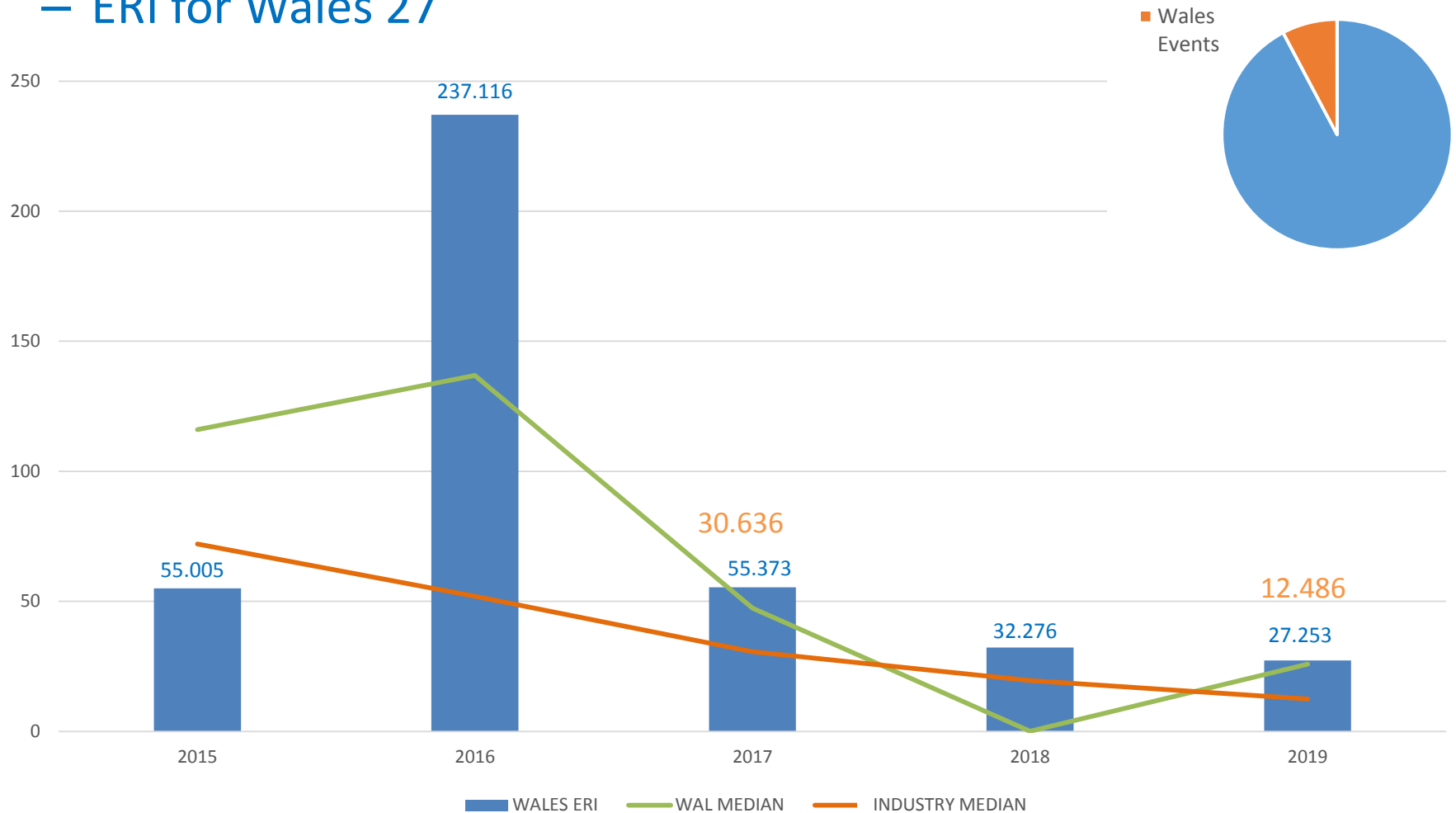
Key

- <math><0.5</math> BBO Contacts per 1000 per year
- 0.6 to 0.9 BBO Contacts per 1000 per year
- >1.0 BBO Contacts per 1000 per year
- ERI < 1.0
- ERI = 1.1 to 10.0
- ERI \Rightarrow 10.1



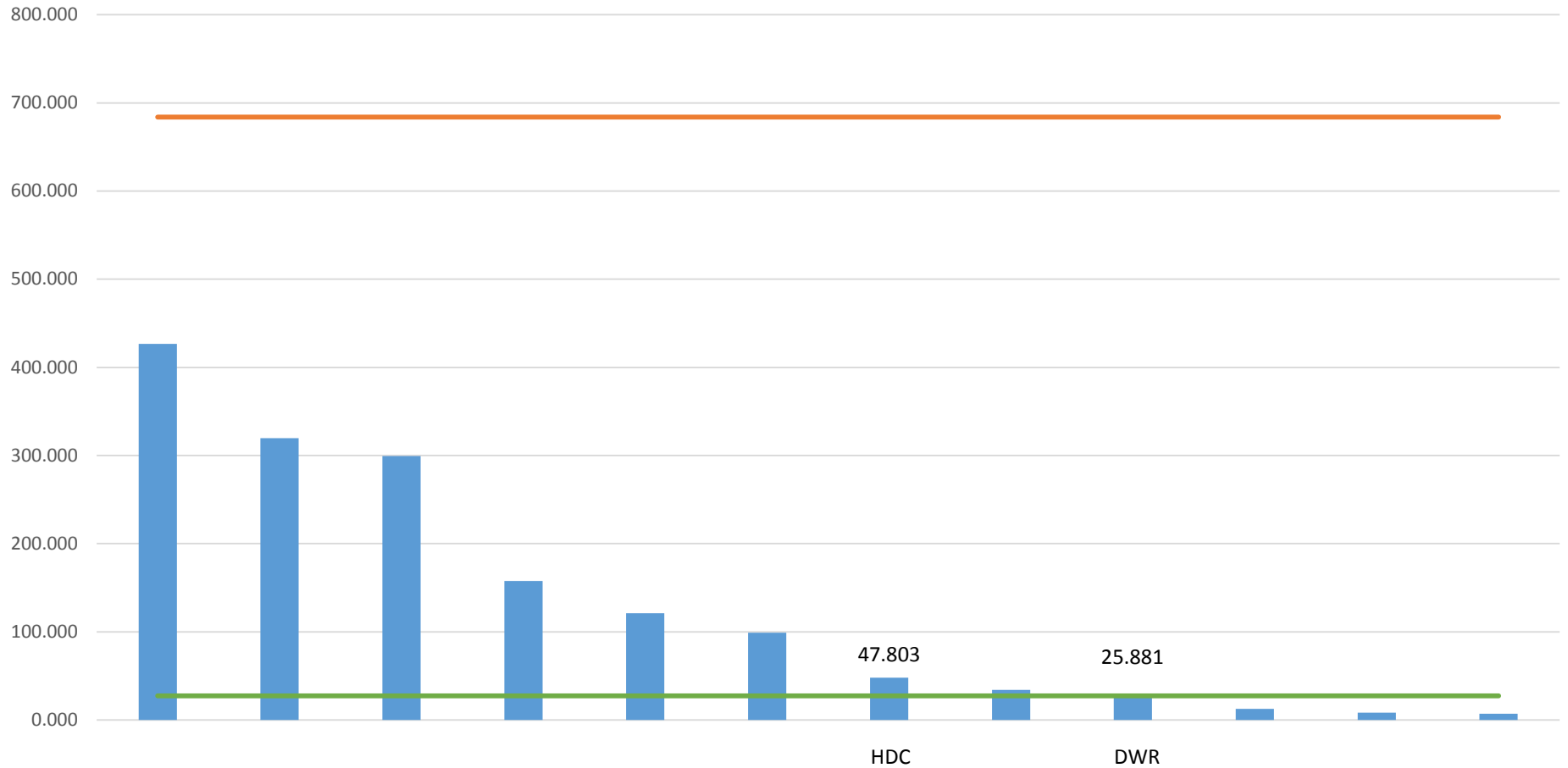
ERI Score Wales

— ERI for Wales 27



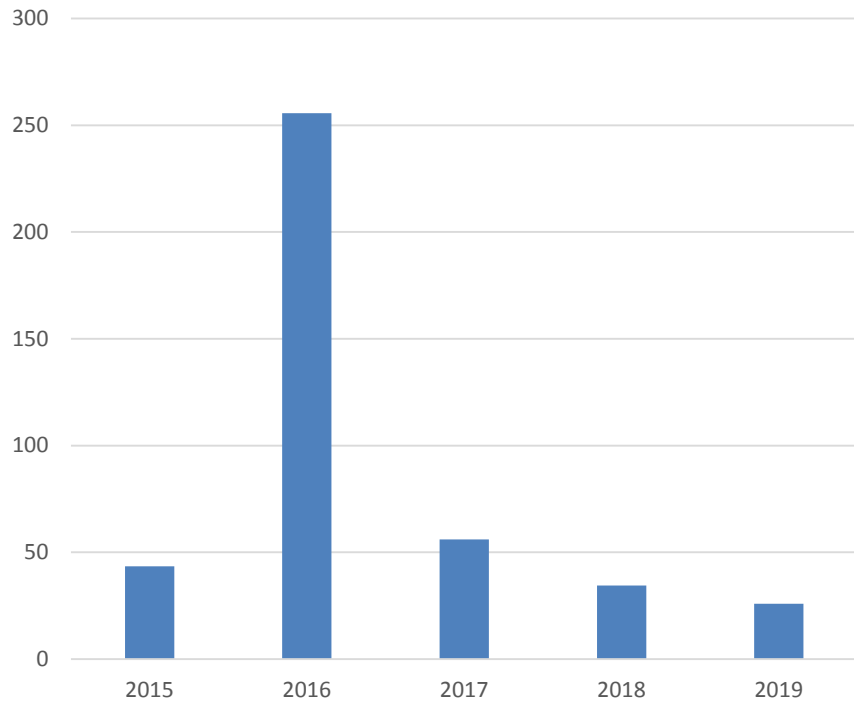
ERI Score Wales

(Excl Highest and Lowest Scoring companies)

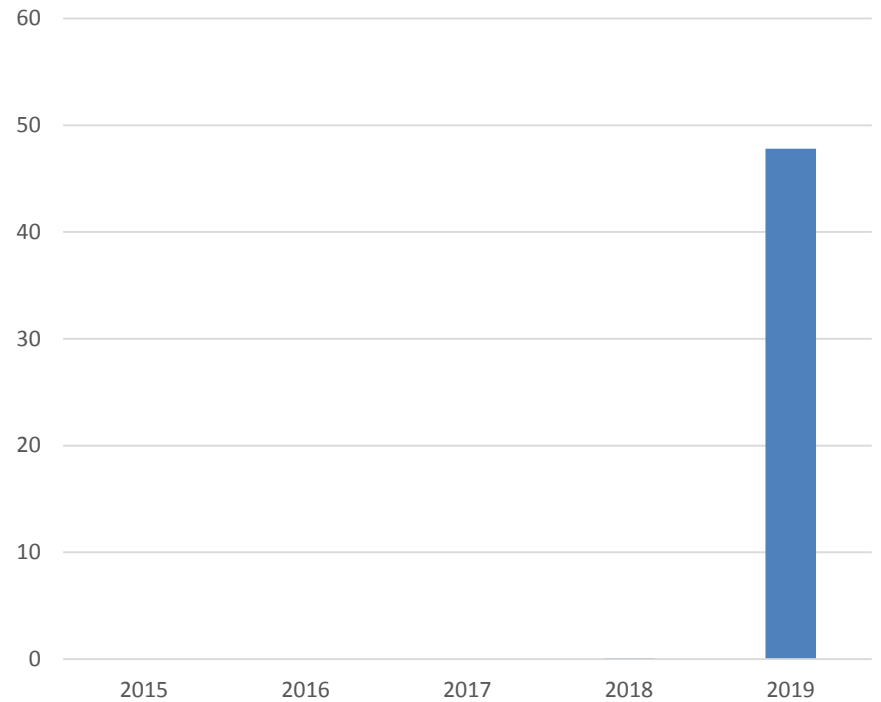


ERI Company Score

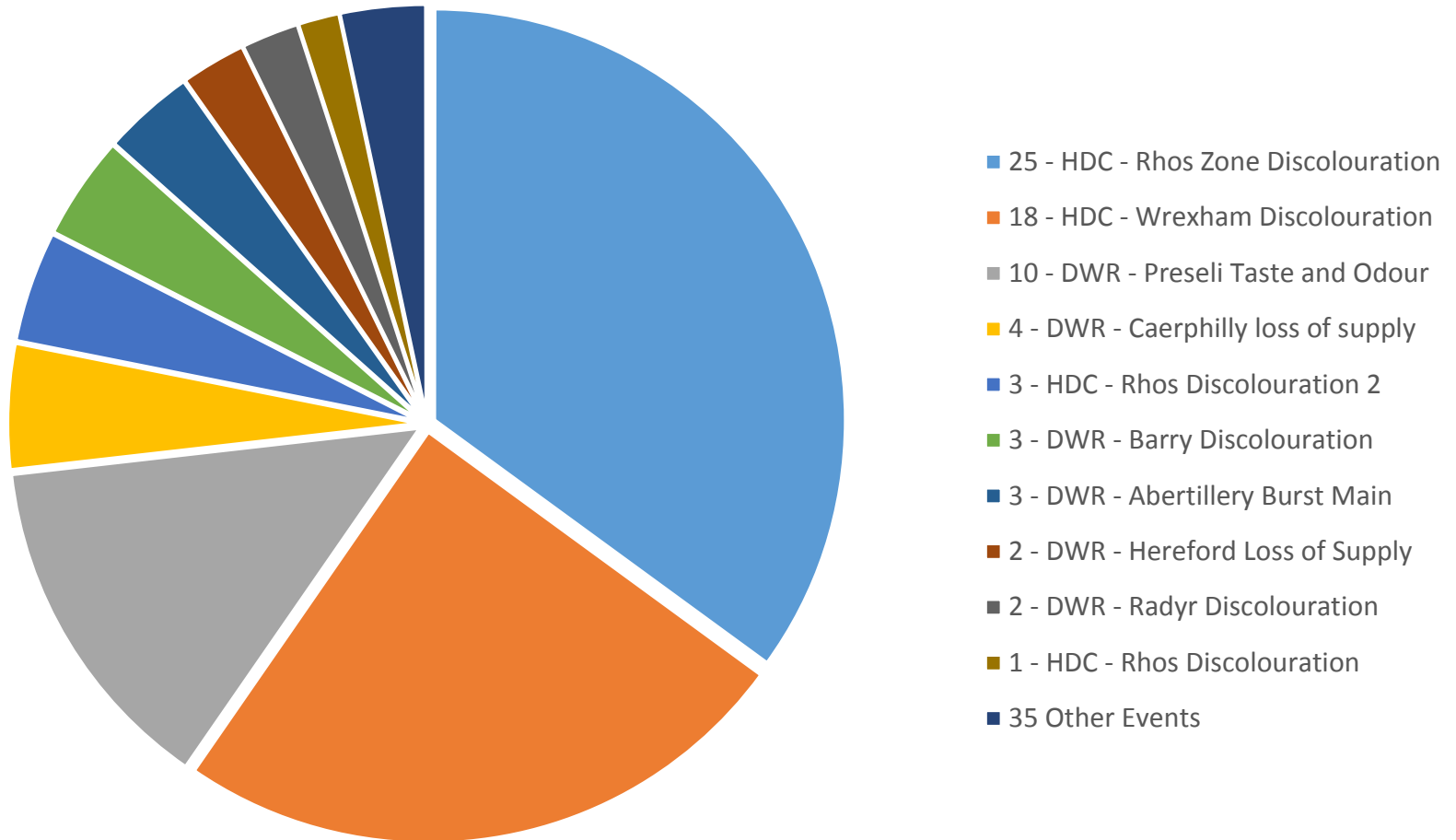
DWR



HDC



Main Events Contributing to ERI



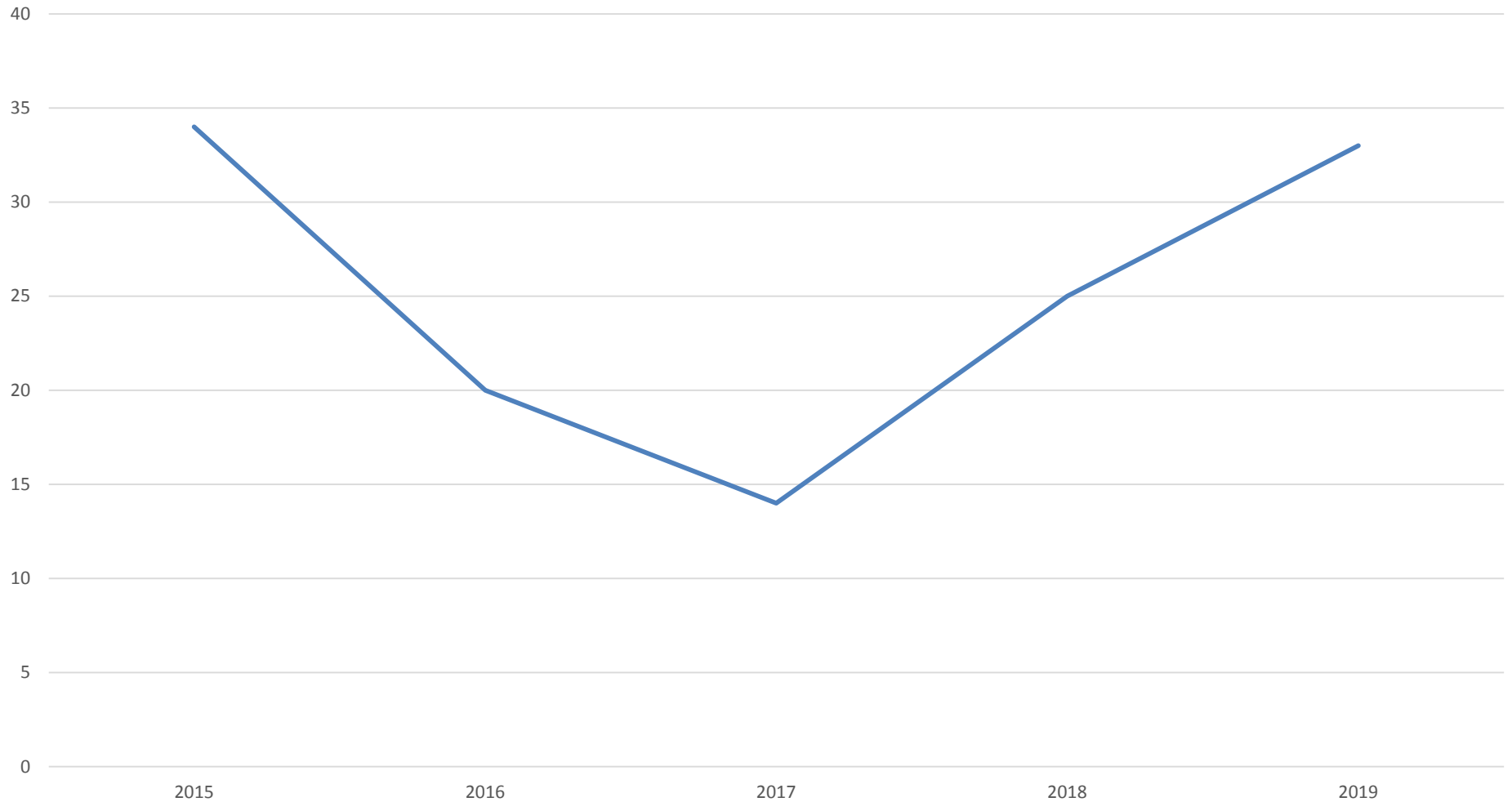
Audits

- Talybont Works
 - Disinfection
 - Lime Dosing
- Lower Carno Works
 - Flow Meter

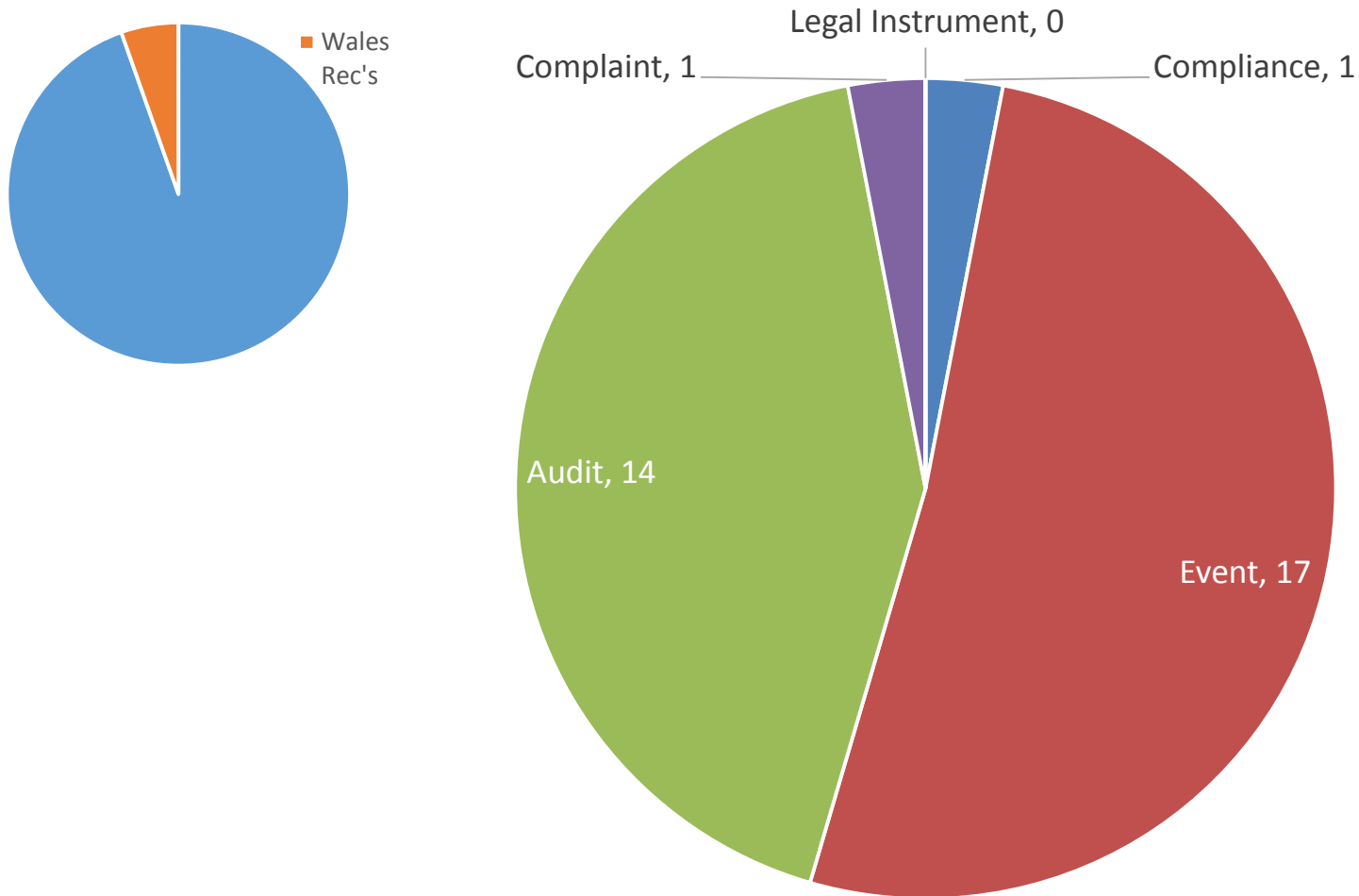


- New Pendinas Works
 - Chemical Delivery
- Preseli Works
 - Turbidity Meter
 - Disinfection Policy
 - Chemical Acceptance
 - Nitrite Data & Sampling

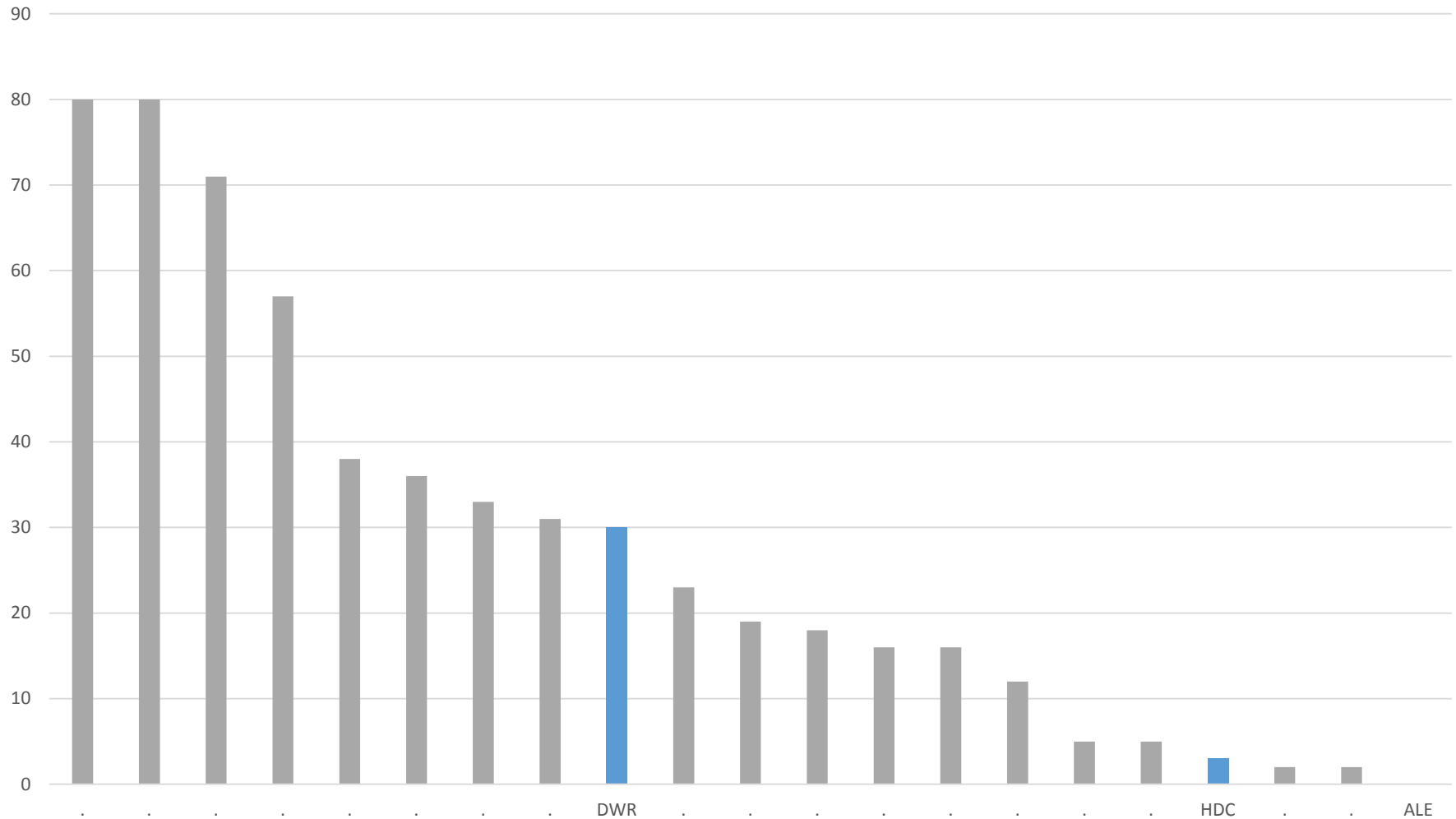
Total Recommendations



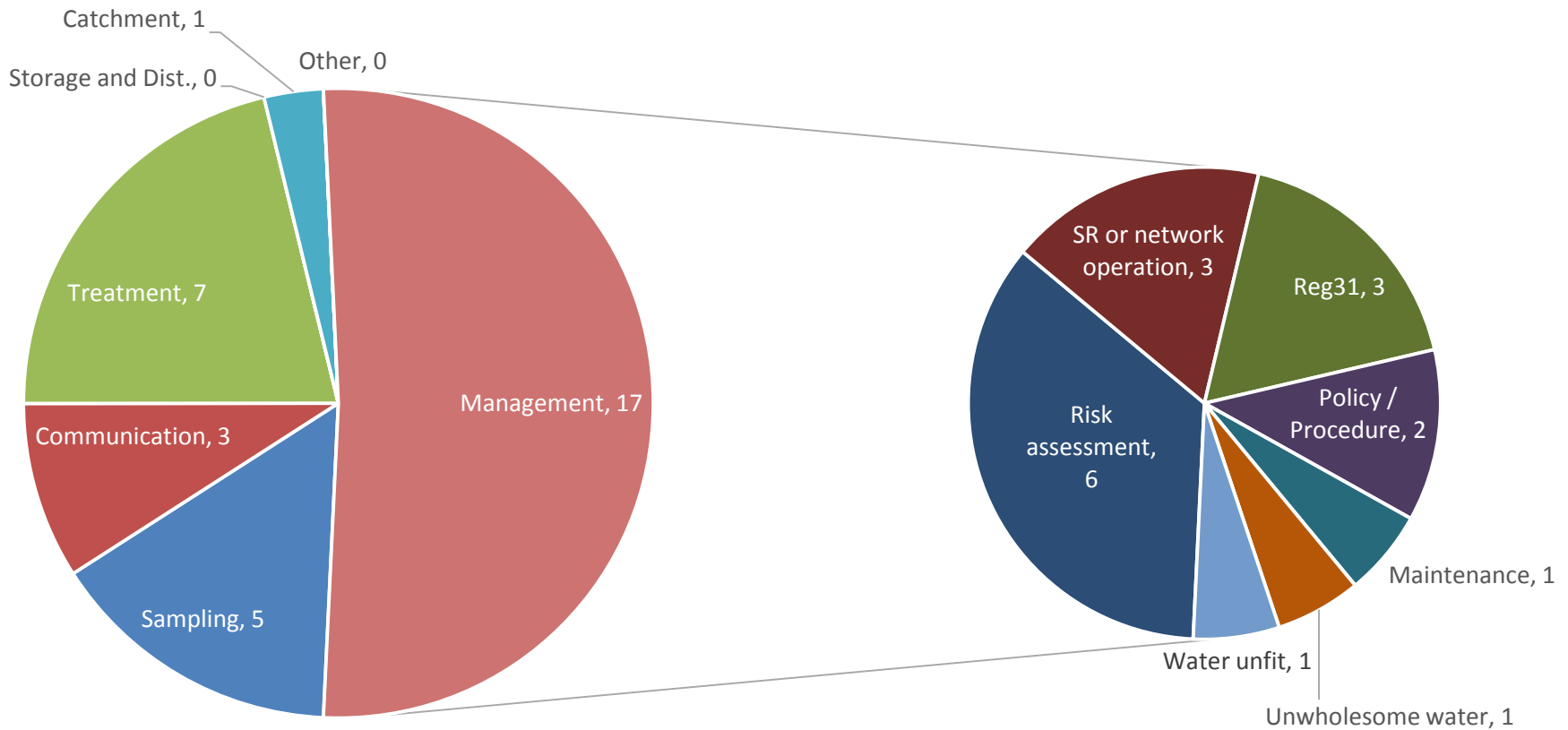
Source of Recommendations



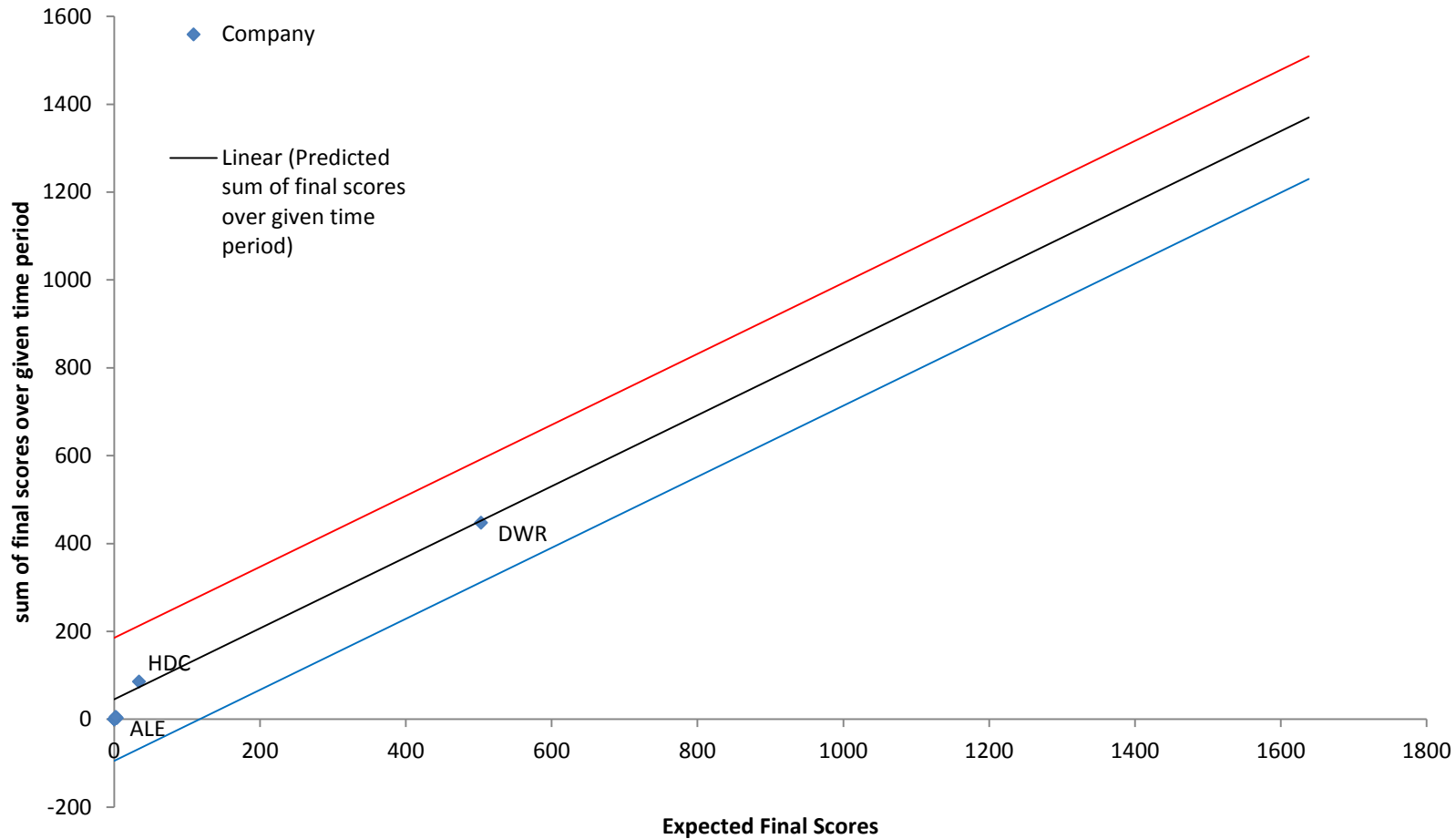
Recommendations by Company



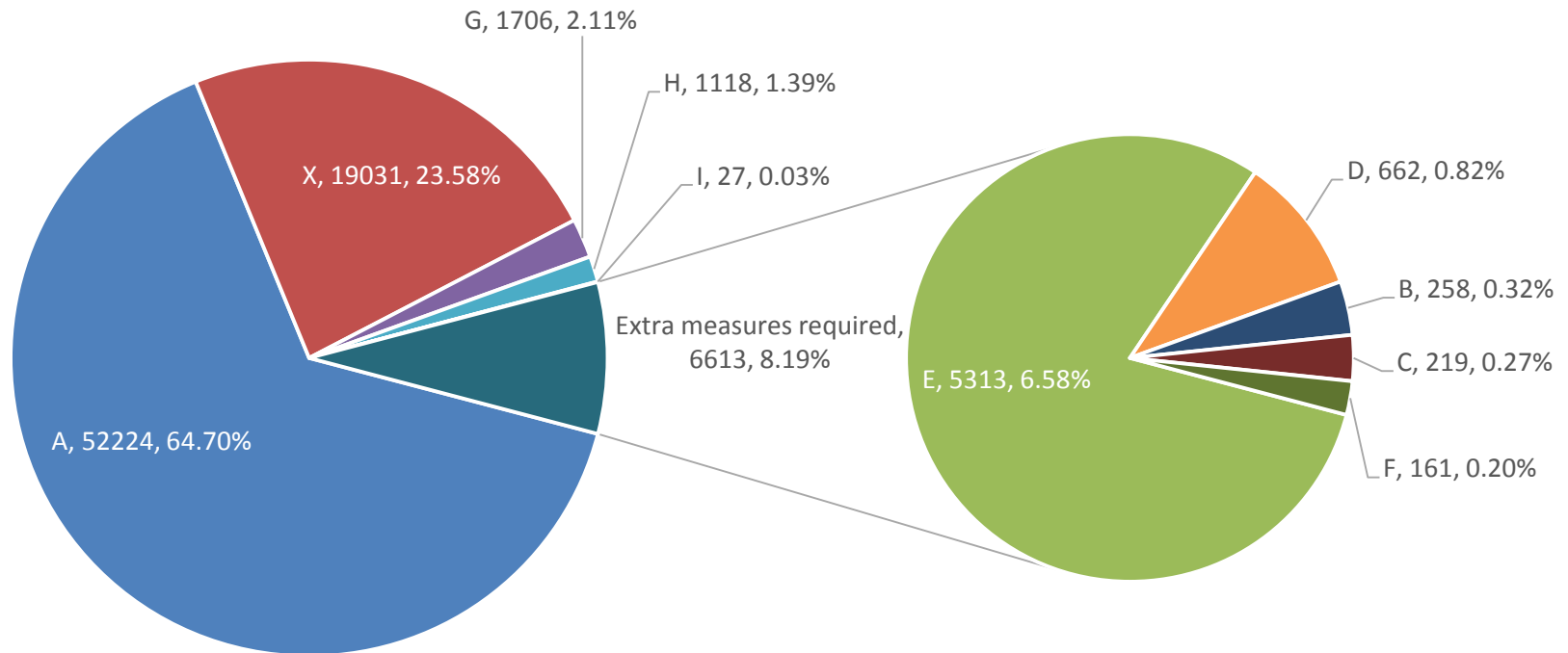
Contribution of Recommendation Types



Observed Vs Expected Recommendations

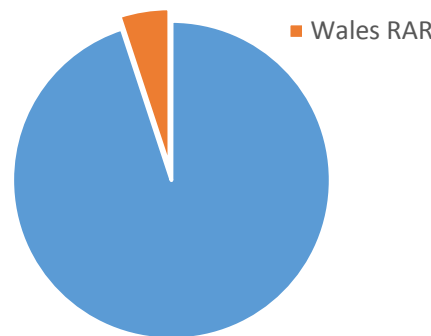


Reg 28 Breakdown by Category

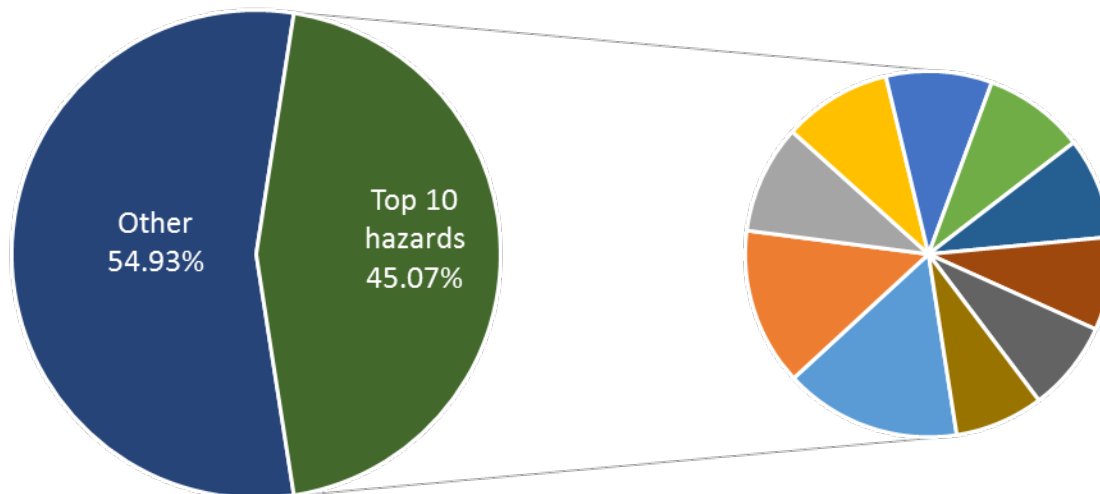


A, H, G, I, X = No additional mitigations required at present

B, C, D = Additional or enhanced control measures are required or are being validated or delivered
 E = Risk under investigation
 F = Partial mitigation



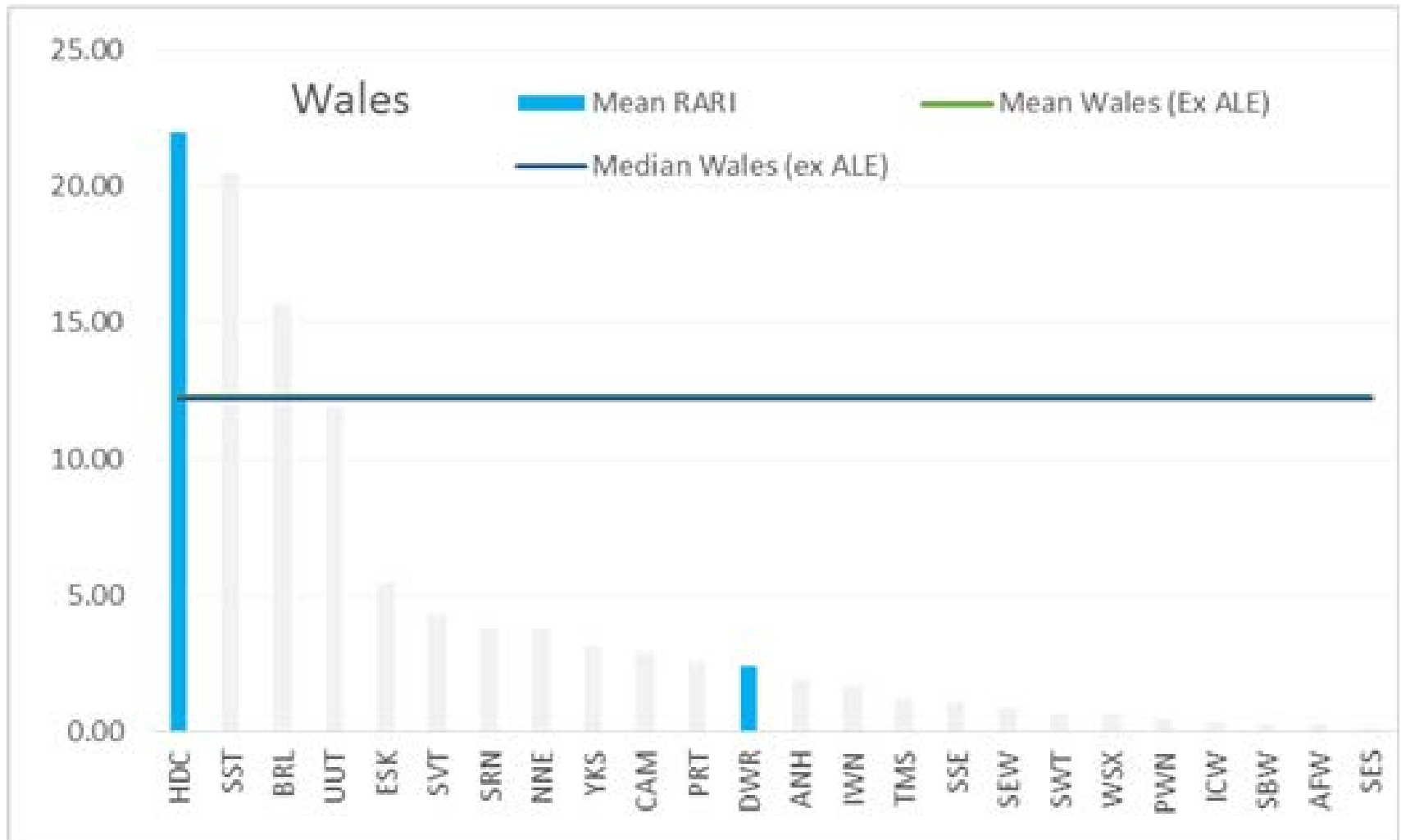
Top Ten RARI Hazards - Wales



- Turbidity - 1 NTU at works 7.04%
- No Supply 6.27%
- Benzene 4.33%
- 1 2-Dichloroethane 4.32%
- Cryptosporidium oocysts 4.22%
- Trichloroethene & Tetrachloroethene 4.03%

- Tetrachloromethane 4.02%
- Lead 3.72%
- Nickel 3.60%
- Mercury 3.52%
- Other

Risk Assessment Risk Index



Network Information Systems

- Network Information Systems
 - OES Companies
 - Covers Cyber Security in 39 Contributing Outcomes
 - Companies should consider Strategic Outcomes
 - Improvement required
 - Company forward planning necessary.

Final Thought

- DWI Strategic Direction Published
 - Safe, clean drinking water is vital to public health and the wellbeing of our society.
 - To improve and protect the quality and sufficiency of drinking water supplies.
 - To maintain public confidence in drinking water.
 - To strategically plan for water quality and sufficiency now, and for future generations.

Feedback Survey



Drinking Water Inspectorate

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🌐 : www.dwi.gov.uk