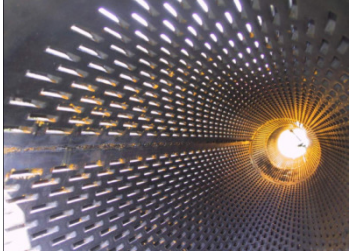


Independent Private Groundwater Supplies are Important Too!

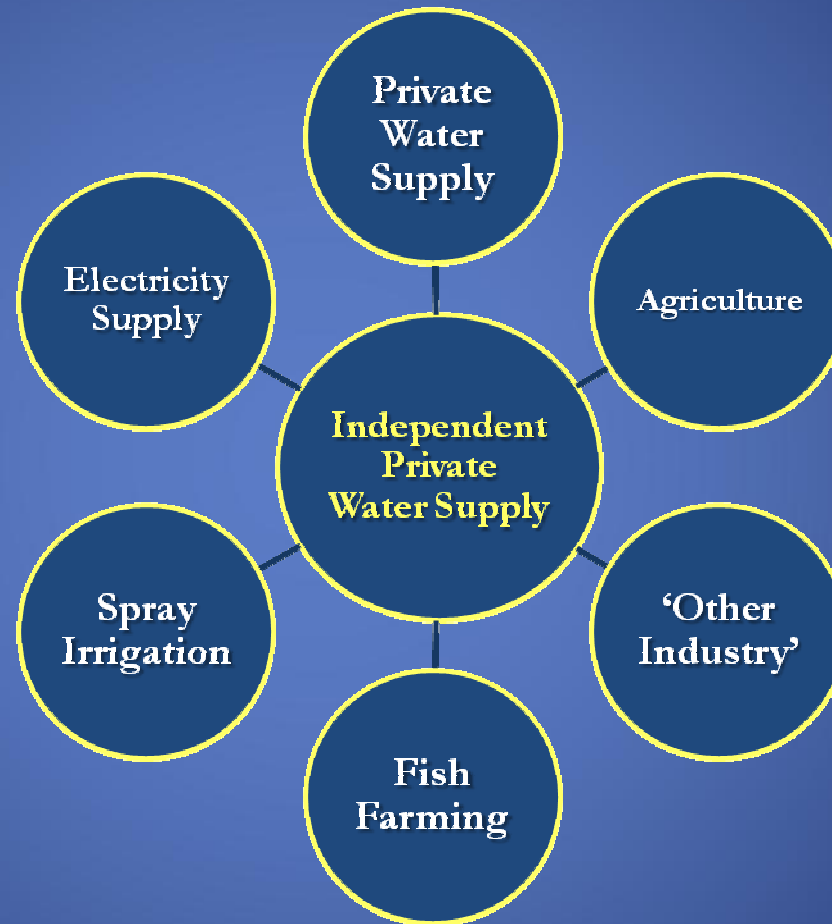
James Dodds MSc CGeol FGS
Managing Director, JDIH (Water & Environment) Ltd



Topics

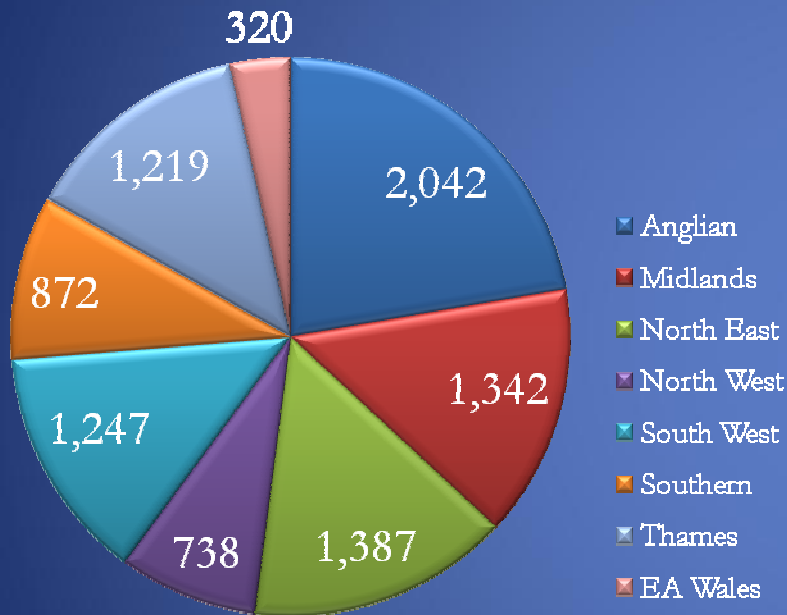
- Independent private water supplies - what are they?
- The number of licences and what they are for
- Monetary Value
- Over cautious Environmental Allowances could cause significant harm on the economy

What are Independent Water Supplies?



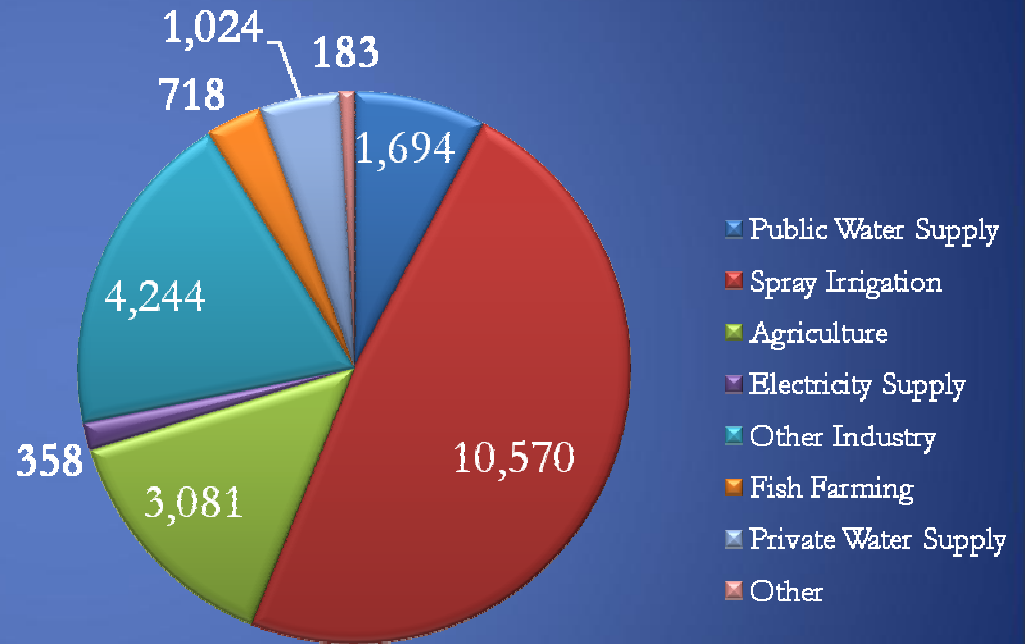
Licences – How many & What for

Total Number (GW)



Total = 9,167 Licences
EA Data

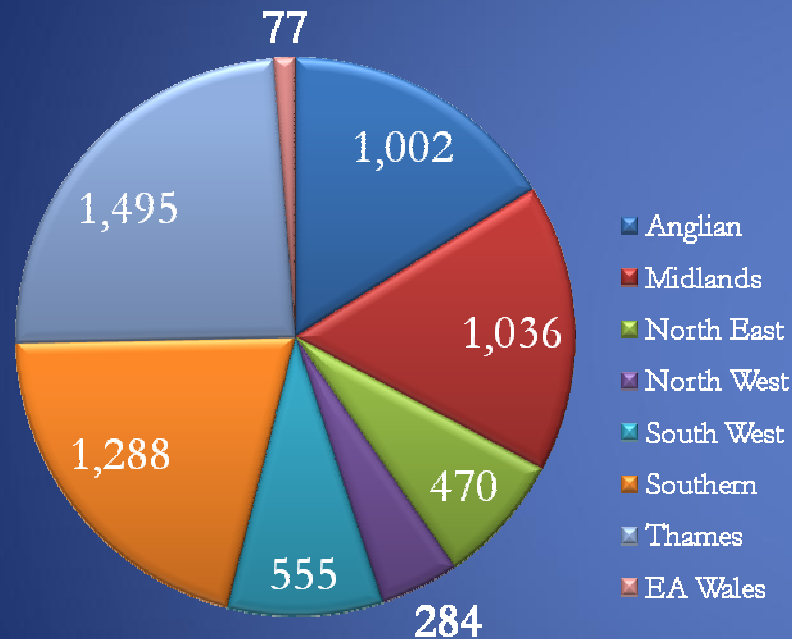
Total Number (GW & SW)



Total = 21,872 Licences
EA Data (2006-07)

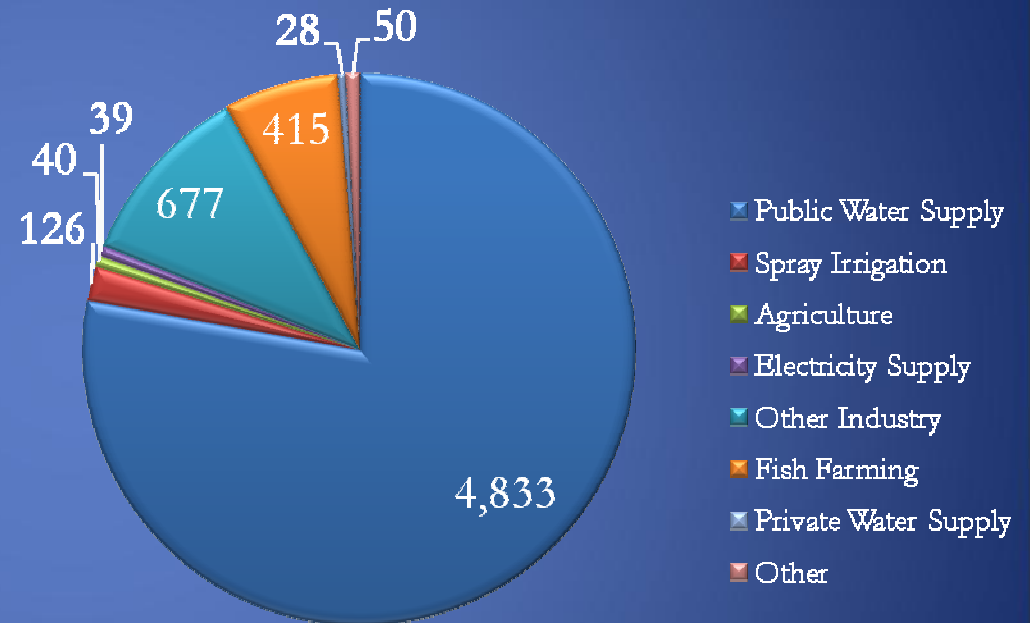
Abstracted Volumes – How much & What for

Volumes of Abstraction
(GW - Ml/yr)



Total = 6,207 Ml/year
EA Data 2006

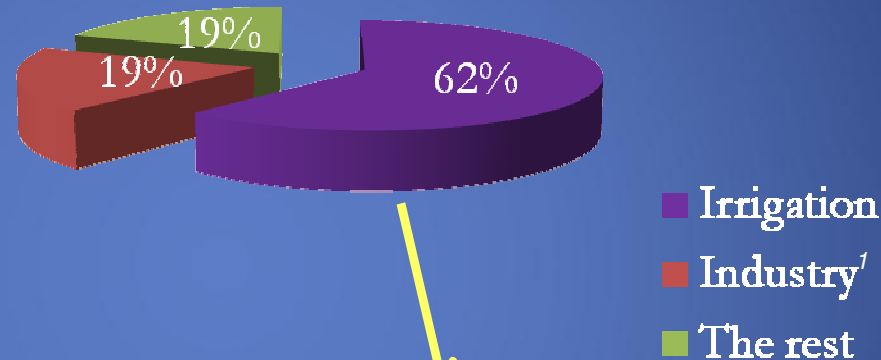
Volumes of Abstraction
(GW - Ml/yr)



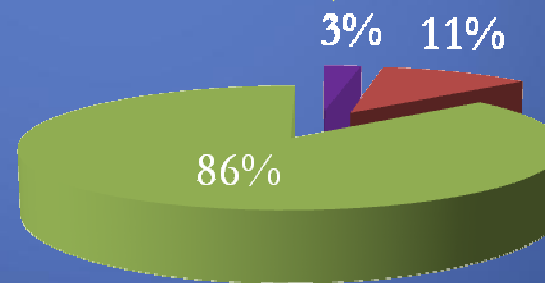
Total = 6,207 Ml/year
EA Data 2006

Irrigation & Industry - Summary

Total
Number of
Licences



Estimated
Abstracted
Volumes



¹Excl. Power
Generation

Value - Agriculture

- Cost of Abstraction Licence = £0.02 /m³
- Cost of water applied (irrig²) = £0.45 /m³
- Cost of Mains (Thames) = £0.93 /m³

- Value of water applied⁽²⁾ = £1.40 /m³
- Total value (Anglian Region) = £144 Million /yr

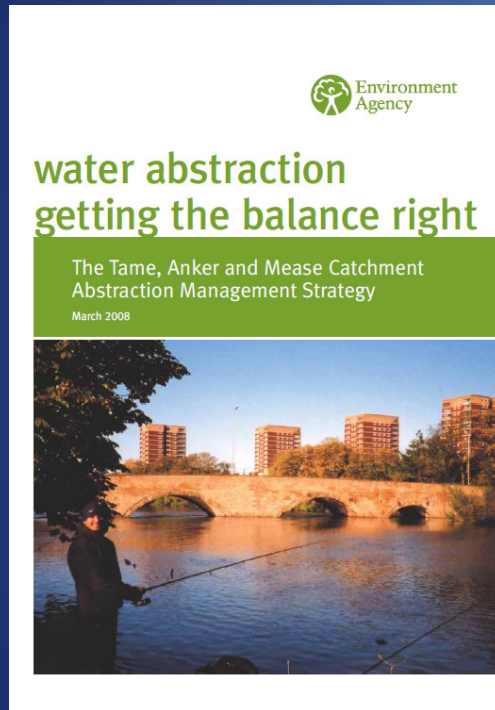
⁽²⁾Knox. J.W. et al. (2000) 'Mapping the financial benefits of sprinkler irrigation and potential financial impact of restrictions on abstraction: A case-study in Anglian Region', *Journal of Environmental Management*, vol 58, pp. 45-59.

Value - Industry

- Manufac' turnover ⁽²⁾ 2004 = £663,000 Million
- Turnover /m³ based on estimated abstraction volumes for 'other industry' = £170/m³
- Value of water used = £8.50 /m³
- Total value of water used = £33,150 Million

⁽²⁾ Table 3 - Industry summary, Small and Medium-sized Enterprise (SME) Statistics 2004, National Statistics: <http://www.statistics.gov.uk/STATBASE/ssdataset.asp?vlnk=7067&More=Y>

Hands of Flow Value

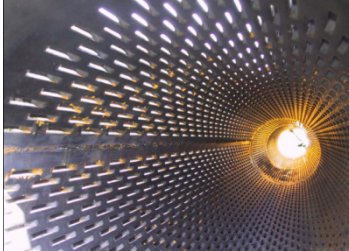


- Hands-Off Flow (HoF) = 503,700,000m³/a
- 1% reduction in HoF represents £7,000,000 for Agriculture
- 1% reduction in HoF represents £42,000,000 for Industry

Constraints

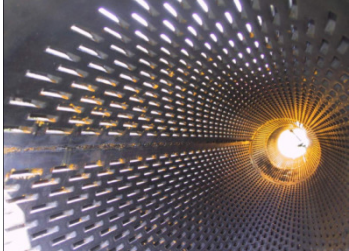
- Fixed location
- Limited supply options
- Lack of flexibility
- Pecking order

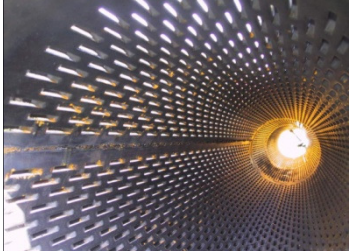
- Require flexibility & support



Looking Forward

- Revisiting groundwater storage and short duration high intensity abstraction
- Surface storage : lots of small vs a few big
- Difficult decisions regarding environmental protection and “growth”
- Continue to work on waste minimisation



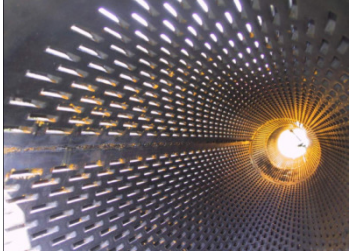


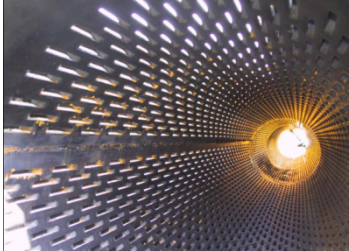
Summary

- The supply of water has a direct impact on the local economy
- The impact is large and significant
- Small changes in Environmental Fraction / HoF can represent large values
- This must be seriously considered when setting fixed minimum resource limits
- “It’ll be a lovely place to live, pity the’re’ll be no bugger around to see it”

Thanks

- Katie Burton - JDIH
- Trevor Bishop - Environment Agency
- Phil Merrin - United Utilities
- Drs Knox & Weatherhead – Cranfield Uni





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