UK Irrigation Association
An independent organisation promoting the wise use of water for irrigation

James Dodds – Exec’ Member
Envireau Water
So much to say ... so little time ...

- Why is irrigation critical to UK agriculture?
- What are the consequences of irrigation restrictions?
- How much water does irrigation take?
- The role of groundwater in sustainable irrigation management?
- Management strategies?

These are my views and not necessarily those of the UKIA or my employer!
Why irrigate ...

Yield  Quality  Consumer
What if irrigation stops?

**In Suffolk**

- 90% of agricultural output is irrigated fruit and veg
- If irrigation stopped – grow cereals?
- Fall in annual production value £51m to £11m
- Fall in local employment contribution £13m to £1.7m
Spray irrigation is licensed

Trickle irrigation is exempt (for now)

Water companies have a mechanism to apply to abstract in droughts

Spray irrigators are the only sector that can be stopped (Sec 57)
The issue ...
How much water ...
Really ...

**Spay Irrigation**

- non-tidal surface waters
- groundwaters
- all surface and groundwaters

**Other Agriculture**

- non-tidal surface waters
- groundwaters
- all surface and groundwaters

What about locally ...

**England & Wales: 2003**
- Public water supply
- Spray irrigation
- Agriculture (excl. spray irrigation)
- Electricity supply industry
- Other industry

**Anglian: 2003**
- Public water supply
- Spray irrigation
- Agriculture (excl. spray irrigation)
- Electricity supply industry
- Other industry

Groundwater / Surface Water ...

Ely Ouse & Cut Off Channel and Lark at Temple

- Ely Ouse & CO Ch DMF
- Ely Ouse & CO Ch est baseflow
- Lark @ Temple DMF
- Lark @ Temple est baseflow
- EA Wangford OBH
- EA Lingheath OBH

Groundwater Level (mOD)

Daily Mean Flow (m³/s)
Groundwater / Surface Water ...

Lark at Temple

Graph showing:
- Lark @ Temple DMF
- Lark @ Temple est baseflow
- EA Wangford OBH
- EA Lingheath OBH

Daily Mean Flow (m³/s)
Groundwater Level (mOD)

01/01/1999 to 31/12/2004
## Short Term Actions ...  

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<thead>
<tr>
<th><strong>Agriculture</strong></th>
<th><strong>Defra/Environment Agency</strong></th>
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<tr>
<td>Promote efficient irrigation including effective equipment use, science based soil and water management, and best irrigation practice (see <a href="http://www.ukia.org">www.ukia.org</a> resources for UKIA advice)</td>
<td>EA: Extend the additional flexibility to water abstractions through the summer and autumn to ensure early refill of irrigation reservoirs when flow conditions permit</td>
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<td>Consult on ‘flexibility’ arrangements with intention of retaining those aspects that offer long term application benefits to water licensing regime (for inclusion in Water Bill 2013)</td>
<td>Defra: Consult on ‘flexibility’ arrangements with intention of retaining those aspects that offer long term application to water licensing regime (for inclusion in Water Bill 2013) - move from the concept of “winter flow abstraction licences” to “high-flow abstraction licences”</td>
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<tr>
<td>Utilise the additional flexibility offered by EA abstraction regime to extend period of winter water abstraction and to take advantage of ‘high flows’ to fill reservoirs when they are available</td>
<td>If Section 57 restrictions are needed, explain how these will be introduced and managed to minimize impact on agriculture</td>
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<td>Livestock farms with reliance on private sources to notify water companies early to arrange alternative supplies and contingency plans have been made.</td>
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Strategy options...

- Use existing supplies wisely
- Build reservoirs
- Form abstractor groups
Strategy options...

Hands-Off Flow (HoF) = 503,700,000 m$^3$/a

1% reduction in HoF represents £7,000,000 for Agriculture

1% reduction in HoF represents £42,000,000 for Industry
Strategy options...

- Transparent decision making
- Repeal Sec 57
- Wise use of HoF & HoL
Strategy options...

Wait 3 weeks!
Thanks to ...

✓ Dr Melvyn Kay  
    Exec’ Sec’ UK Irrigation Association

✓ Dr Diane Mitchell  
    Chief Environment Adviser, National Farmers Union

✓ Dr Keith Weatherhead  
    Cranfield Water Science Institute
Thank you