Britain's fresh milk professionals

Case study: Water saving opportunities in dairy processing.

Michelle Mansell
Regional Environmental Manager

ROBERT WISEMAN DAIRIES

Content

- UK: water and food
- 2012 drought risk areas
- Water and dairy processing
- Water and RWD
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- The future

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UK: Water and food

- Perception UK ‘wet’

- Drought an increasingly Important issue

- Implications for food production, producers and consumers

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UK: Water and food

- Product quality
- Product availability
- Costs
- Regulatory
- Reputation

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‘Water is a vital resource for the food and grocery industry. The combination of limited availability and high demand, including the expected impacts of climate change, mean food companies are subject to increasing water-related risks.’

IGD (01/03/12)

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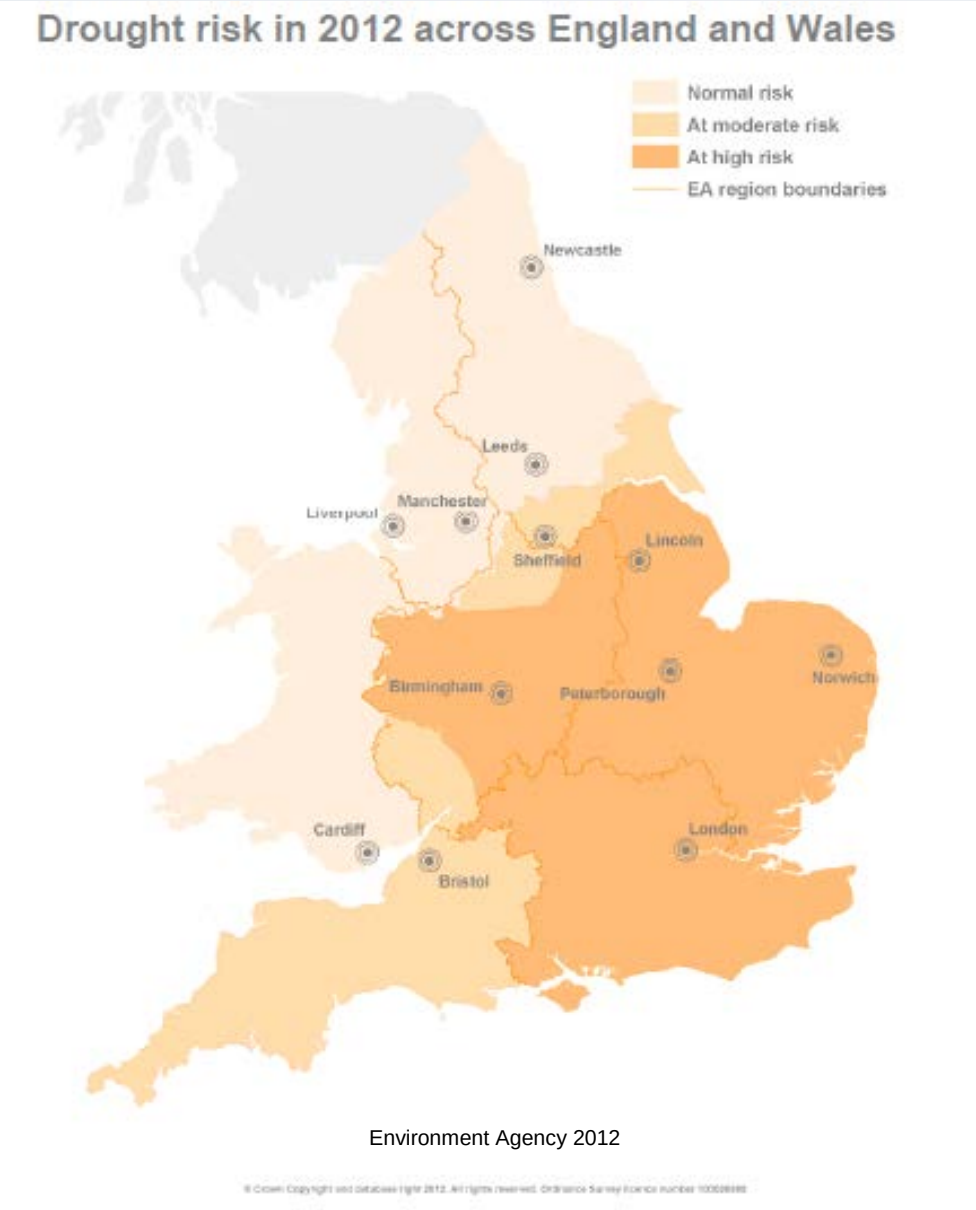

Environment Agency 2012

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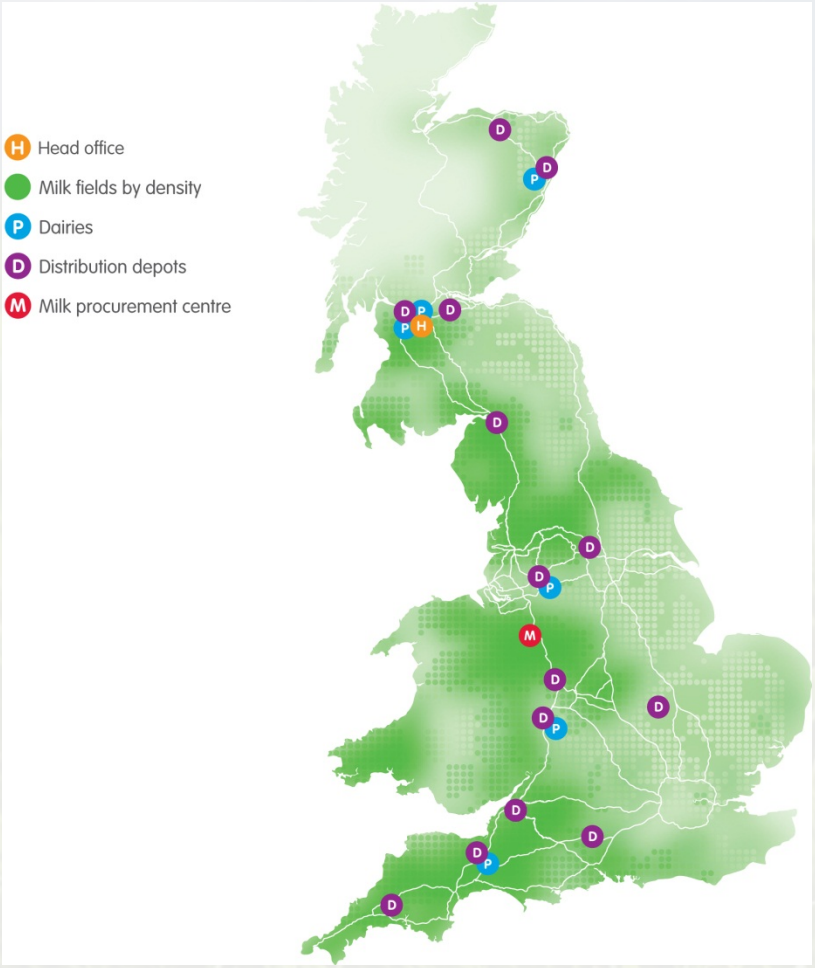
2012 Drought Risk Areas



- RWD sites
  - Recently updated
  - Which are at risk…
  - Now…
  - The future…

?

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Water and dairy processing

- 2007 Envirowise audit
  - 1.3 litre water per 1 litre milk (industry average)
- 2008 Dairy Roadmap
  - 20% water reduction by 2015
- Dairy UK Benchmarking
  - Year on year benchmarking
  - Industry average now 0.87 litre water per litre milk

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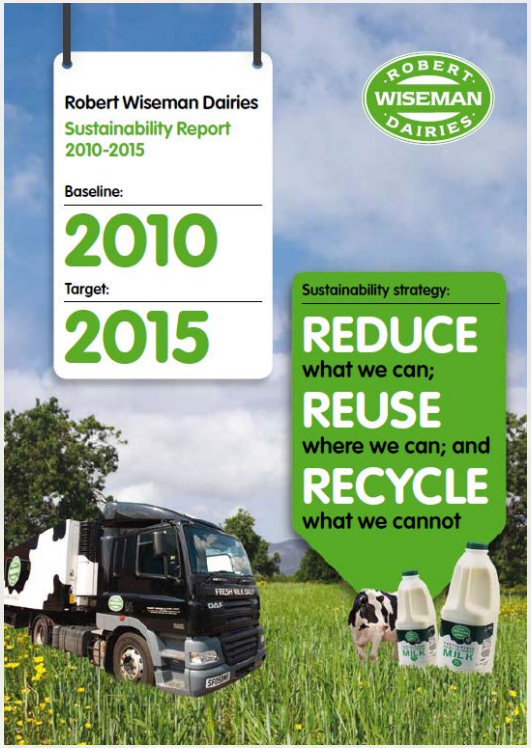
Water and RWD



25%

Water: 25% group reduction

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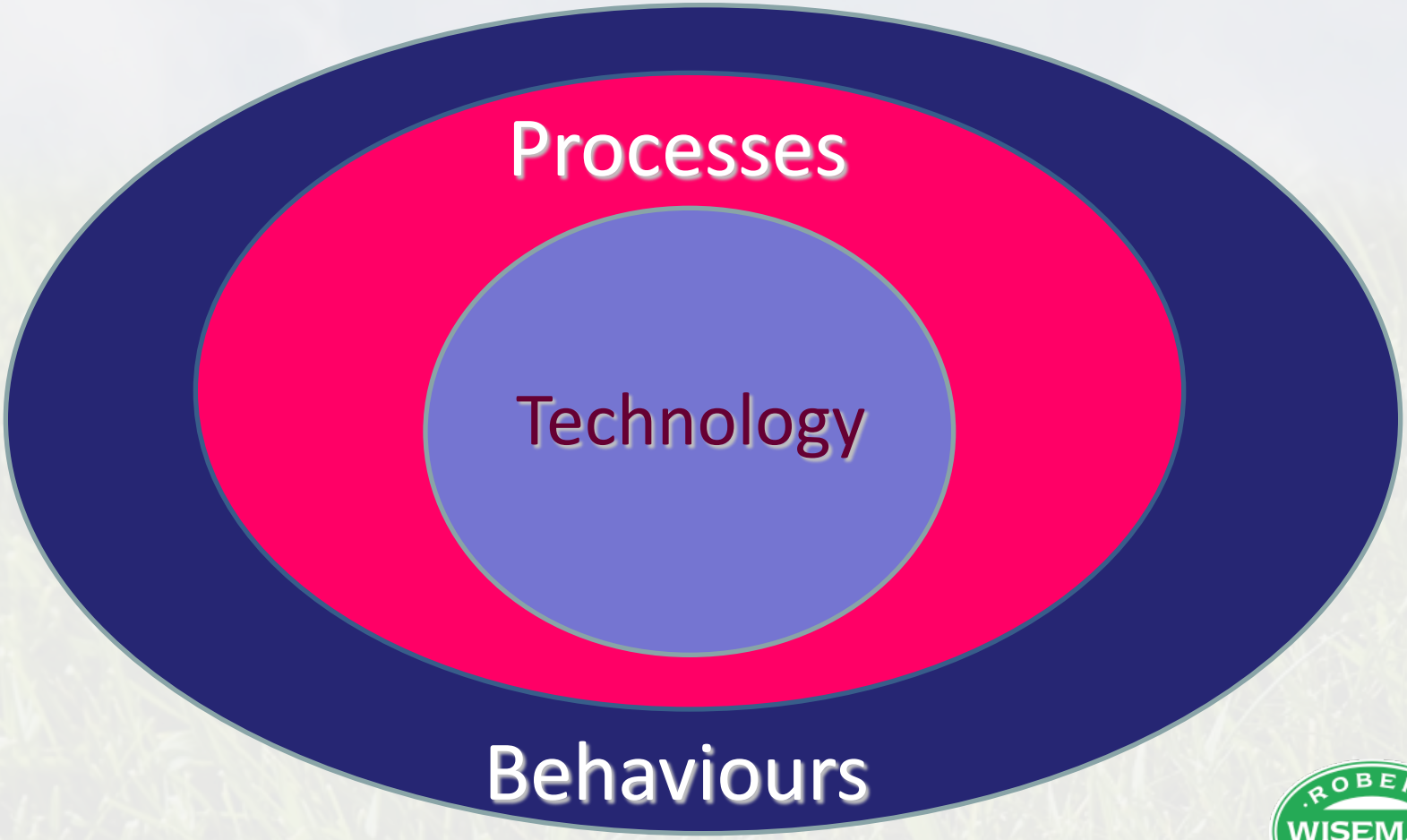
How will we achieve this?



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Technology

- Review new technology
  - What does it do?
  - How much can it save (water / costs)?
  - How much does it cost?
  - Which sites does it apply to?

- 5 year Water Management Plan
  - Regular reviews of progress

Technology

- Effluent treatment with water recovery.
  - Bridgwater designed for 50%
  - Droitwich Spa designed for 60%
- Recycle drive through vehicle wash water
  - 95% recycling at Manchester
- Heat pumps
  - Eliminates use of cooling towers

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Processes

- Best practices
  - Cleaning In Place (CIP)
  - Improved maintenance
- Continuous improvement/lean thinking
  - Process mapping
  - Water balance exercises
  - Minimise waste

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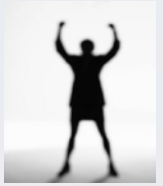
Behaviours

- Environmental Excellence Roadmap
  - Behaviours (not targets)
  - Training & Awareness
  - Measuring, monitoring & trends
  - Site management review
  - Action Log

Behaviours



‘A culture has been created whereby all staff are empowered to identify and progress water reduction opportunities’ Level 5

‘There is a high level of awareness of water efficiency continually reinforced through training and workshops’ Level 4

‘All departments have identified opportunities to reduce water consumption’ Level 3

‘All staff have been trained on the environmental and financial benefits of water efficiency’ Level 2

‘Water usage is discussed at management meetings’ Level 1

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The future..?

- Growing demand for water in UK
- Dairy Roadmap target of 30% water reduction by 2020
- Robert Wiseman Dairies
  - Not complacent
  - Culture of striving to be the best
  - Beyond 2015 Sustainability Strategy target?

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Thank you

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