

Langford Recycling Scheme

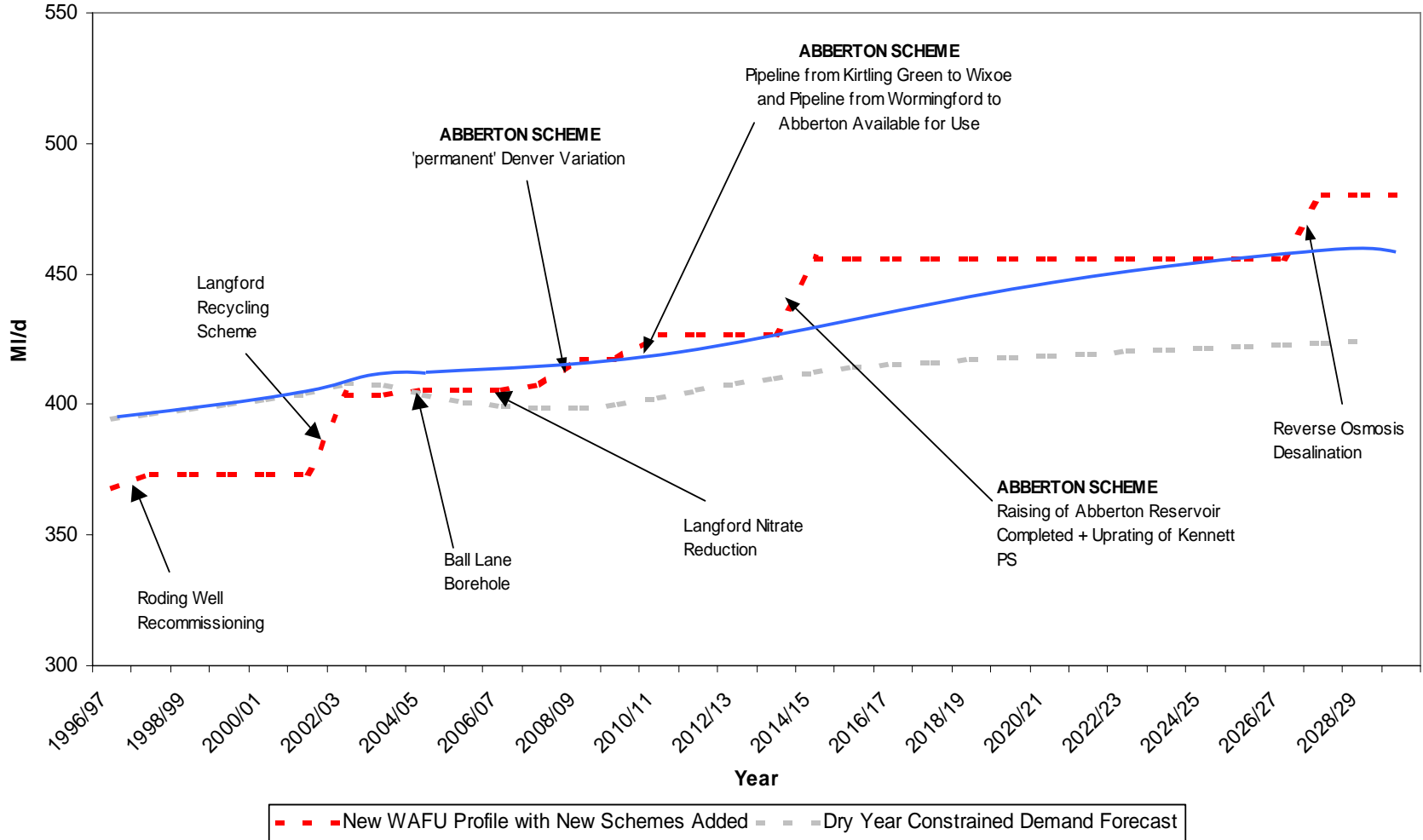
Martin Lunn

SCIENTIFIC & WATER RESOURCES MANAGER

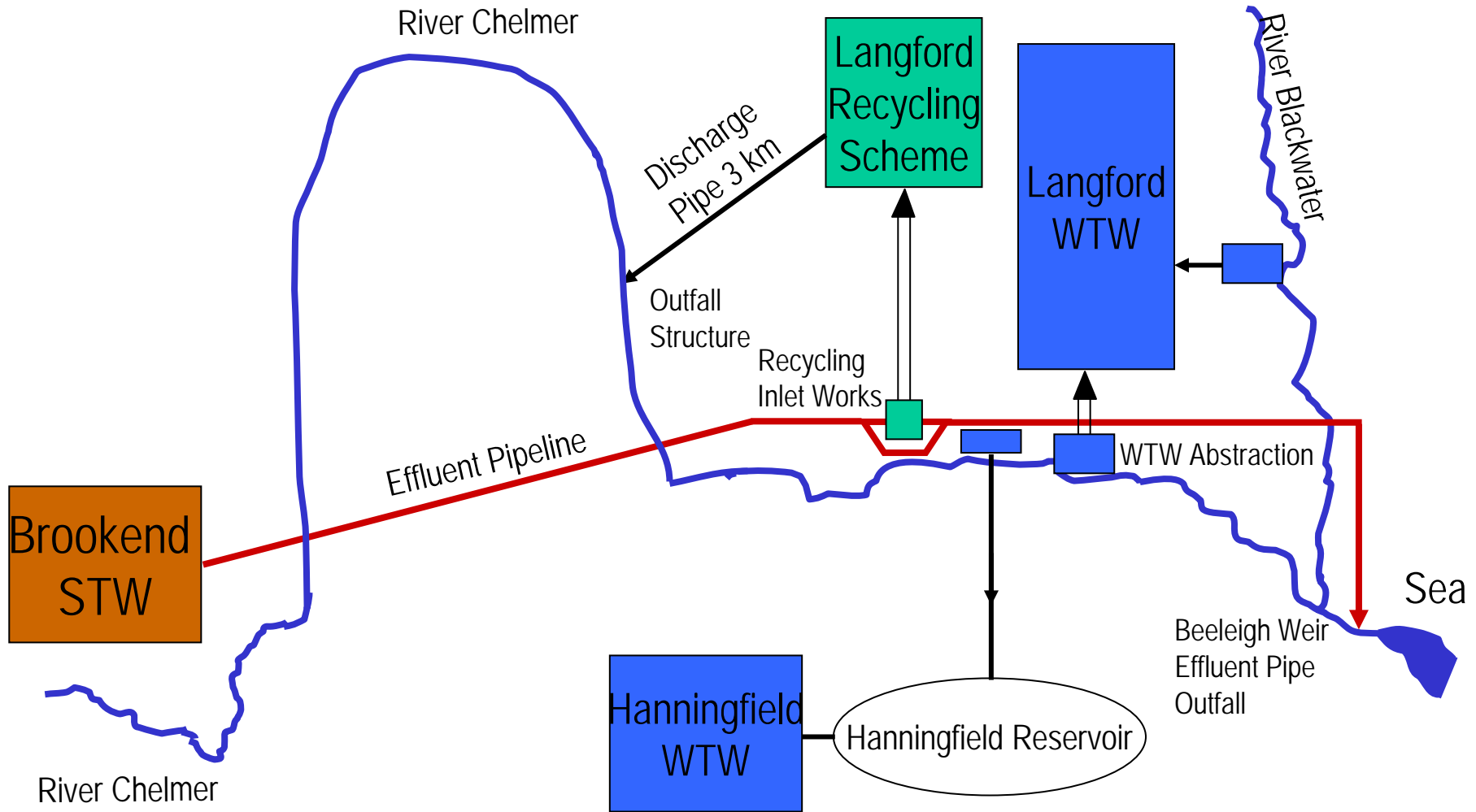


Supply Demand Balance

Essex Resource Zone -Supply Demand Balance Constrained Demand + WAFU Profile With New Schemes



Langford Recycling Scheme



Temporary Recycling Scheme

- 25 ML/d into Hanningfield Reservoir
- Abstraction from wastewater pipeline
- UV Disinfection
- Discharge into river water sumps
- Pump across to Hanningfield Reservoir

Permanent Recycling Scheme

- Needed to be successful
- Structured Public Consultation
- Exhibition trailer purchased and fitted out
- Short video describing Scheme commissioned
- John Craven fronted video
- Over 30 public locations visited
- Almost no interest from public

Advantage

- We had been open about plan

New Requirements

Water would have to go into river prior to reservoir

Legislative Requirements

- Urban Waste Water Treatment Directive
- Nitrate Directive
- Surface Water Abstraction Directive
- Dangerous Substances Directive
- Freshwater Fisheries Directive
- Drinking Water Directive
- Conservation of Wild Birds Directive
- Habitats Directive

Permanent Recycling Scheme

TREATMENT CYCLE

- Abstraction from Wastewater pipeline (up to 40MI/d)
- Densadeg - phosphate removal
- Biofor DN - Nitrate removal
- Biofor N - Ammonia removal
- UV disinfection (320 J/m²)
- Discharge pipeline 4km upstream in River Chelmer

Application Process

- EA used “Contentious Issues” process
- 2 open public meetings
- 2 private surgeries
- No concern about potable supplies
- Vociferous concern about siltation

Permanent Recycling Scheme

- 1993-1999 Baseline Studies
- Aug 1998 - April 1999 - Wide public and opinion former consultation
- Oct 1998 - April 1999 - Preparing Application
- 8 April 1999 - Official Application for Discharge Consent
- August 1999 - Official Application for Abstraction Licence
- 9 November 1999 - Environment Agency's "Minded to Grant" Decision
- 9 November 1999 - 17 February 2000 - Consideration by SoS for DETR
- 17 April 2000 both licences granted
- April 2002 - Plant Operational

Happy Ever After

Main lesson learnt – technically excellent, but
need to get the communication right

This lesson has been applied to promotion of the
Abberton Scheme

Awards

Concept and plant have been widely recognised as an exemplar

National and International interest

Golden Apple – Green Apple awards

DEFRA - special recommendation at Water Efficiency awards

Utility Week - Environment award 2004

CIWEM - World of difference award

Institute of Civil Engineers - Water award