

# Metaldehyde Occurrence and Removal

Hayley O'Malley  
Severn Trent Water  
Principal Advisor Water Quality Regulations

# Water Supply (Water Quality) Regulations



## Regulatory Requirements - Pesticides

- Risk Assessment Requirement – Drinking Water Safety Plans
- Monitoring Requirement – Obligation to monitor those pesticides identified through DWSP as likely to be present in source water

## Wholesomeness Standards

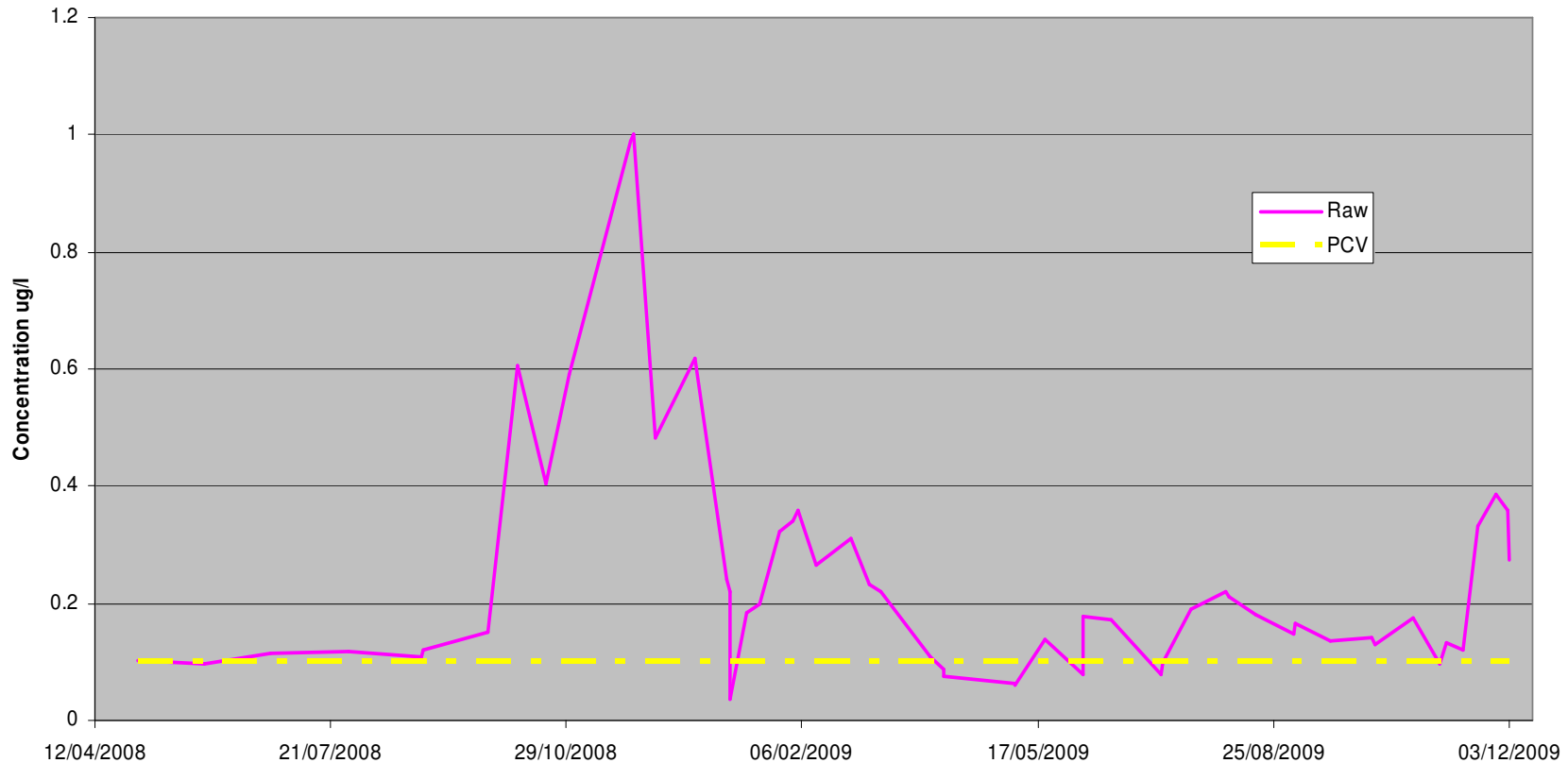
- Individual pesticide standard = 0.1ug/l – Direct from Drinking Water Directive
- Total pesticide standard = 0.5ug/l
- 4 named pesticides (Aldrin, Dieldrin, Heptachlor and Heptachlor Epoxide) lower std = 0.03ug/l

# Metaldehyde – The Issue

- Metaldehyde – active ingredient in most slug pellets
- Widely used in all sectors and has been since the 70's

## Why is it an issue today?

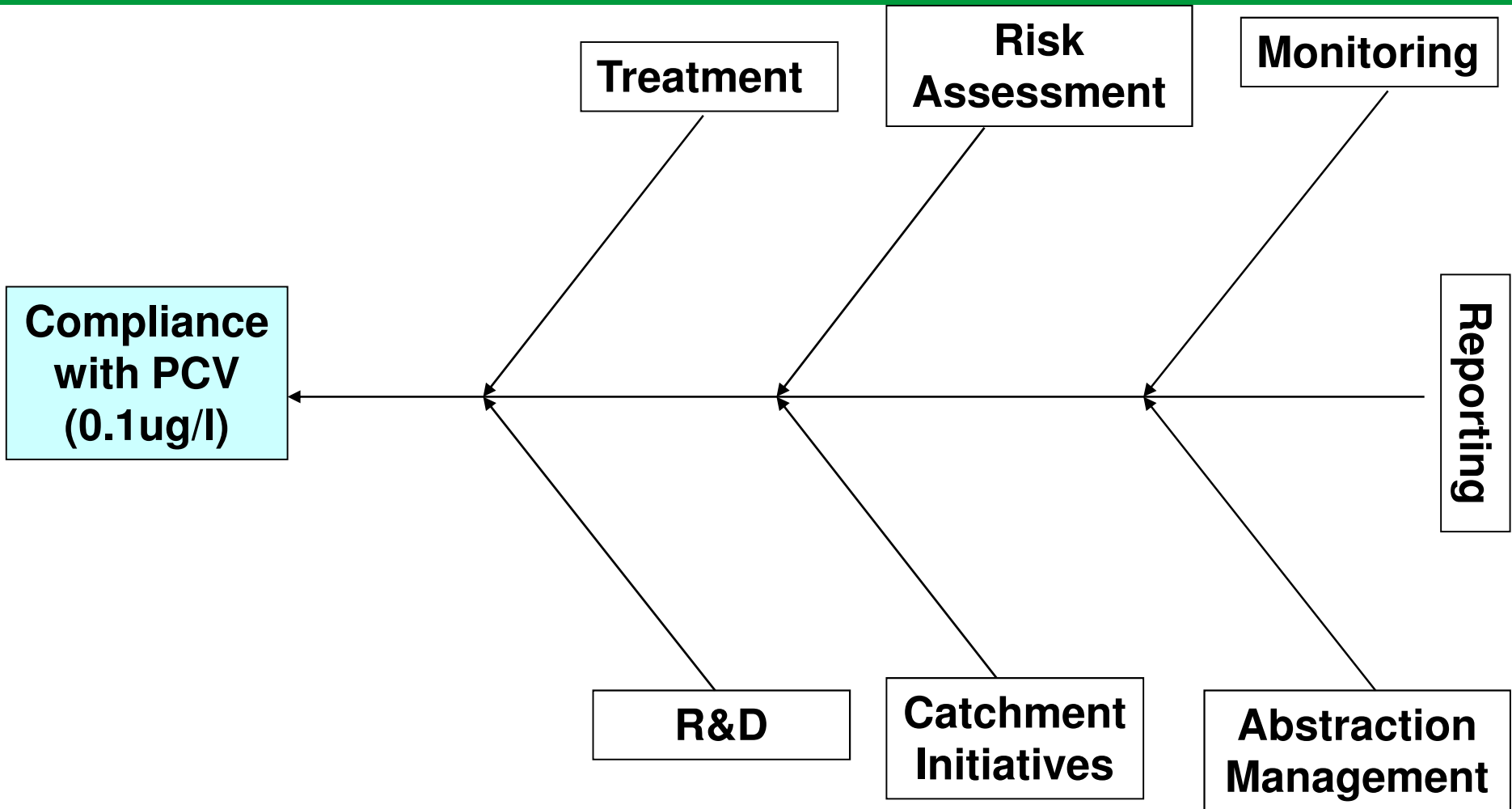
**Metaldehyde Trend - Campion Hills WTW**



# Metaldehyde - History

- 2007 – New analytical methodology developed
- Bristol Water start monitoring - >PCV results raw and final
- 2008 – Wider Industry start monitoring
  - Severn Trent Water – 9 sites >PCV Metaldehyde (Surface works)
- Breaches considered as a failure in our duty to supply wholesome water
- 2009 (May) – Drinking Water Inspectorate issue enforcement orders to affected water companies
- 2009 (Nov) – Agree formal programmes of work to facilitate Metaldehyde compliance (Section 19 Water Industry Act Undertakings)
- 2010 – Continue to monitor, deliver actions within the programme

# Where next?



2015

Under pinned by site specific action plans with 6 monthly progress reports to DWI

# Catchment and Best Practice



- **Metaldhyde Stewardship Group (MSG)**
  - Led a significant media campaign – **Getpelletwise**
  - Promote best practice in the field
  - Voluntarily amended product usage labels
  - Specific mail shots to at risk postcodes
  - Specific field trials – routes into water
- **Environment Agency (Regional Teams)**
  - Promotion of best practice
  - Assisting with catchment monitoring
- **Other groups: Natural England, Farming Wildlife Advisory Group, Amenity Forums, Voluntary Initiative, Agronomists**
- **Catchment specific trials** – i.e. ferric phosphate alternatives, Strategic Partnerships

**All voluntary and comes back to some famous words  
Education, Education, Education!!!!**

- Industry Technical Steering Group Established
- UKWIR Funded Project - Treatment of New & Emerging Pesticides
  - 11 Water Co involved
  - Review data across Co - target sites for further investigation
  - Mechanisms for removal– biodegradation, desorption....
  - Alternative treatment technologies – UV/ozone and Peroxide
  - Online monitoring capability – timely response
  - Modelling of the impact of wet and dry pellet formulation use on watercourses
- Co specific initiatives – PAC trials