

# Realities of Sampling for Small Trusts ChemCatchers<sup>®</sup> & FIO Sampling

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# Applications of ChemCatchers

- Passive Sampling – Allows you to capture events for 2-3 weeks
- Identification of a wide range of compounds in water – Herbicides, diazinon, Metals, radionuclides, PAHs/PCBs
- Freshwater
- Provide a time weighted average concentrations for the period concerned, does not provide peak data. Can capture sporadic events – good for identification of sub-lethal impacts.
- Can be deployed in a wide range of locations.
- Unless deployed at a high resolution, ChemCatchers will only identify presence/absence and concentrations which will drop due to dilution dependent on distance downstream.
- At a higher resolution and with a good knowledge of inputs, they could be used to ID problem areas.

# Good data come at a cost

- Initial deployment may take up to a day for 7 sites (or longer)
- Re-deployments are shorter but may still require two staff
- Hidden costs
  - Deployment cages are ~£500 each
  - 3 disks are used at each site @£60 per disk this could reach £180 per site, per deployment
  - Preparation Costs - £30/disk/deployment (£90ps,pd) – All costs Ex VAT
  - Shipping – Primarily supplied from Ireland. Cost to send Cool box of ChemCatchers can reach £100 (although it was significantly cheaper on my last quote). It also costs up to £60 to return cool boxes and housings for cleaning.
- Staff time to arrange and wait for deliveries of disks, these are shipped overnight and need to be refrigerated immediately (for up to seven days)
- Analysis costs £65/site (NRW)

# Tips

- Train 2-3 staff on deployment, processing etc
- Use local contacts to borrow cages, a few organisations have these lying around.
- Work out what you want to achieve – ID of problem areas, or presence/absence & TWA's of certain compounds.
- Choose sites based on easy access and those that are away from prying eyes.
- Cages are robust and although (relatively) light they remain in situ during high flows. Ensure that they are securely chained to trees.
- Be prepared to wait for analysis data (four weeks)