

# UKOPA

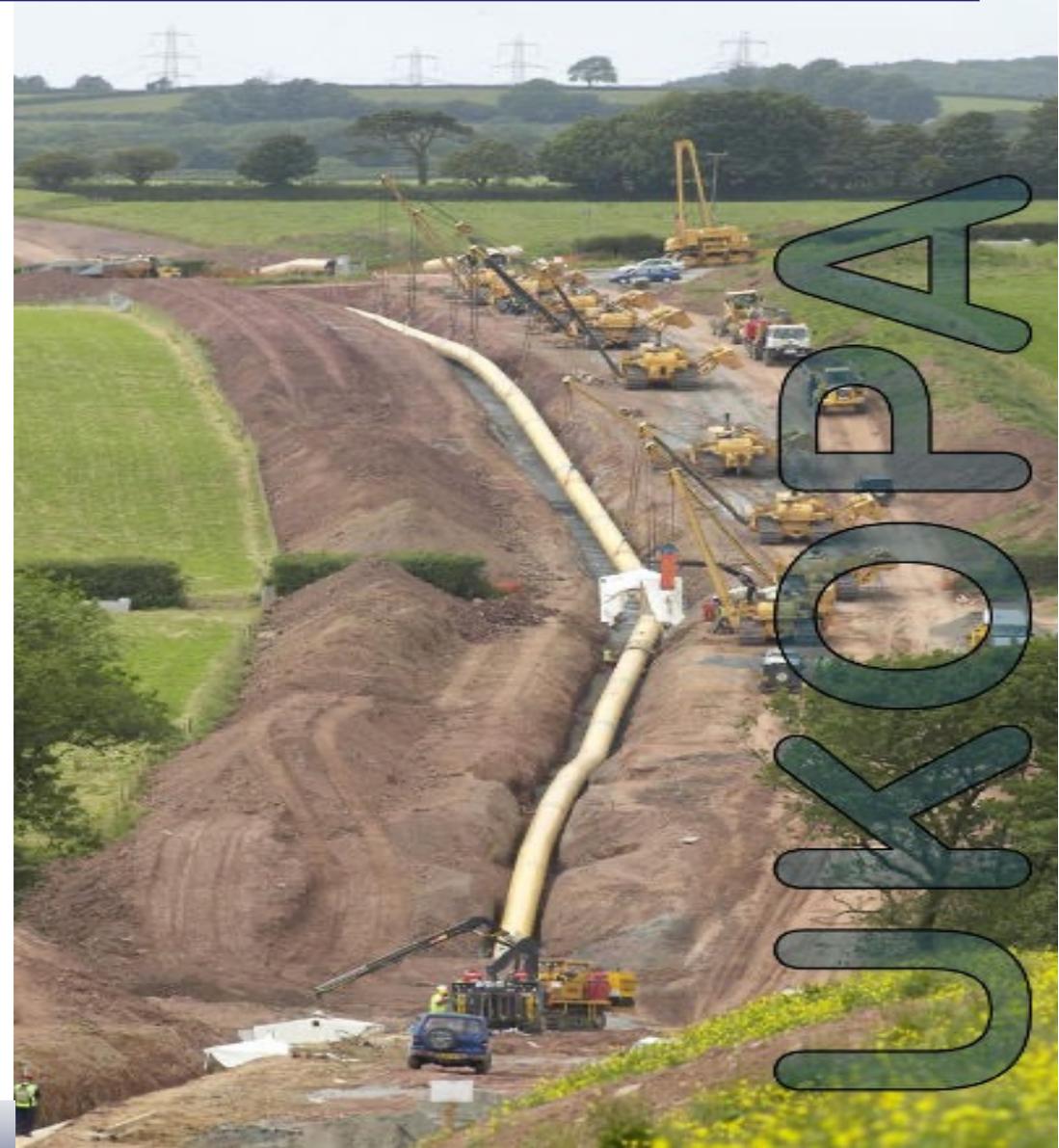
United Kingdom Onshore Pipeline Operators' Association

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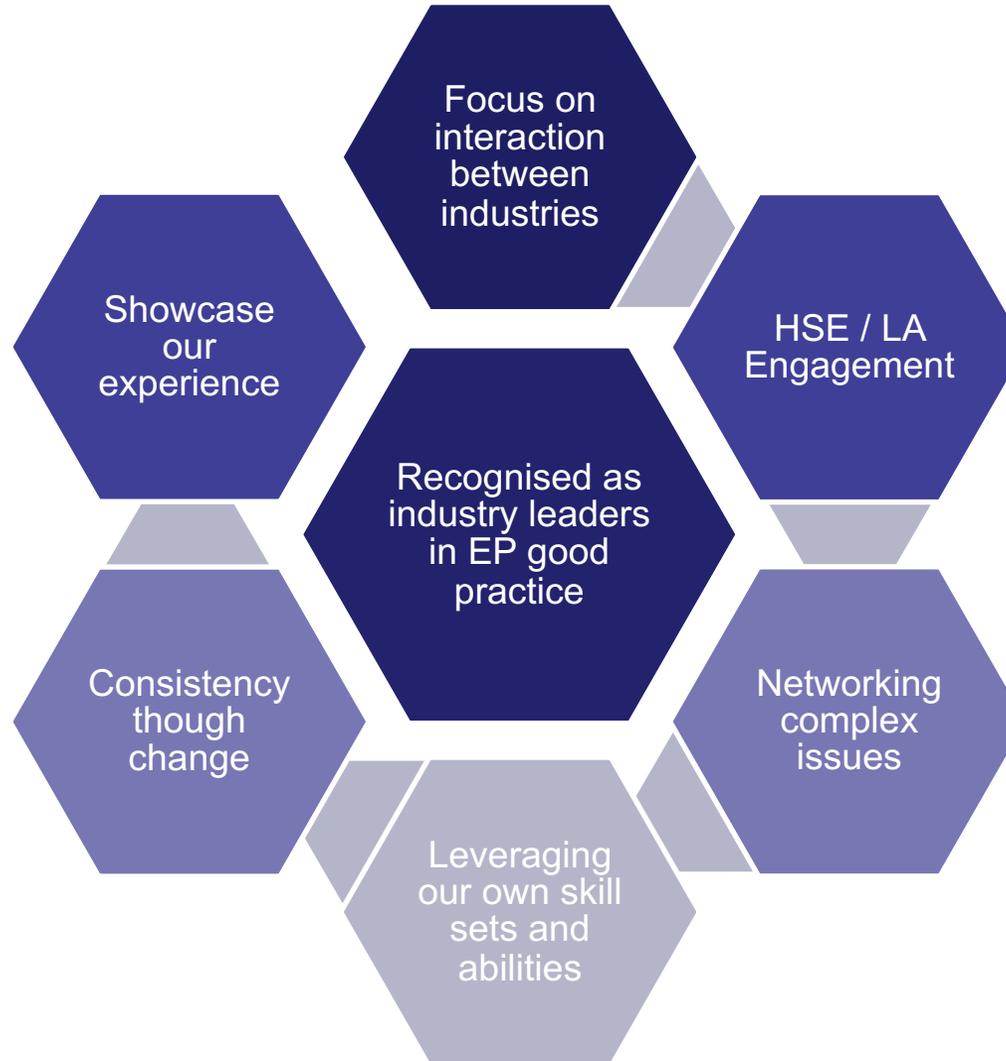
## Emergency Planning & Resilience Working Group

John Madden  
October 2023

[www.ukopa.co.uk](http://www.ukopa.co.uk)



# Re-Energise, and promote



# Current membership



# EPRWG - Pipeline Emergency Response Officer (PERO)



Focus on interaction between industries

- Developed by UKOPA for UKOPA Members
- 2 day course including meals and accommodation
- Mixed operator course to aid sharing of learnings
- Reviewing alternative venues
  - Refresh Course material

Date	Position
8 <sup>th</sup> / 9 <sup>th</sup> March	Fully booked
18 <sup>th</sup> / 19 <sup>th</sup> April	Fully booked
6 <sup>th</sup> / 7 <sup>th</sup> June	Fully booked
13 <sup>th</sup> / 14 <sup>th</sup> September	Fully booked
10 <sup>th</sup> / 11 <sup>th</sup> October	Fully booked
8 <sup>th</sup> / 9 <sup>th</sup> November	Fully booked

# EPRWG Best Practice Workshop

Showcase  
our  
experience

- Best Practice Workshop
  - Planned early 2024
- Agenda to Include
  - Real life incident learnings (Above Ground Installation, Cyber and Pipeline)
  - HSE / EA Presentations
  - Cyber Resilience & threat landscape
  - Hydrogen – Current and future thinking
  - Emergency planning scenario exercise example



# EPRWG – Environmental Discussion



Networking complex issues

- Cross Working Group Meeting (PIWG, FARWG and EPRWG)
- Areas of interest included
  - River erosion
  - Flooding/emergency response
  - Inspection/protection and repair advice
  - Stakeholder engagement/regulations and legislation.
- 3 Key Documents to be developed
  - Signposting – What to look for, how to remediate – PIWG
  - Screening – How to prioritise risk and where to focus – FARWG
  - Respond & Recover – How to react / emergency response, EPRWG

**Signposting – What to look for, how to remediate**

**Screening – How to prioritise risk and where to focus**

**Emergency – How to react & Provision of an emergency response**

PIWG email discussions regarding river erosion / flooding

**GN Issues**

We're currently at the start of our first one of these in recent memory – the last time we had any River Bank issues was back in 2013, and by the looks of it, the issue we had in 2013 was far more gentle and slow. The current situation has lateral erosion of river bank being washed away downstream of our pipeline during heavy rain events, and the eroded bank is now about 15m "lax" from us, a loss of about 15m since last summer.

The pipe crossing is located at a very geomorphologically active site. We've overlain some recent aerial imagery with the first edition OS map (dated late 1800s) and there are, in places, in excess of 100m of lateral river channel change.

The process we're currently going through is naturally planned as:

- Desktop analysis – looking at the full suite of old maps, aerial photographs, and LIDAR data – to ascertain the historic rates and patterns of river channel change
- Topographic survey of the river channel position, and cross-sections within the river
- Hydrological analysis and stream power calculations
- Site visit
- Modelling of the in-channel flows – to ascertain likely locations, rates and patterns of future river channel change
- Meeting with SEPA to discuss the history of the site and options for intervention
- Development of a conceptual design, including engagement of contractors.
- Review of recommendations/proposed way forward

**Valero**

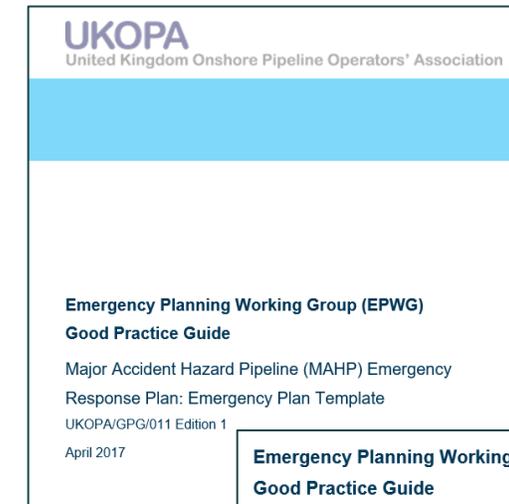
We're in a similar boat, this is the first time we have had to deal with something like this (I believe previous operator did in late 1990's). For what we're doing, we identified an area of expected pooling during manual inspections. As part of planning we wanted to try and estimate rates of bank erosion. First thoughts were to try satellite imagery to measure the river width and get a feel for erosion rates, but given the varying quality of available info and differences in vegetation cover this proved impossible to get an accurate result. Instead, we found that the LIDAR datasets worked well – these can be purchased as shapefiles from sources such as Ordnance Survey. Using LIDAR lets you see through the vegetation to the ground beneath, so gives us a reliable data set.

We're now planning to roll out a check across the network of all river crossings to try and highlight any change in river orientation over time that might otherwise have gone unnoticed. We're looking to use the LIDAR data for this, but also as part of our ongoing site walks will take a geotagged photo from a known reference either side of the bank for visual comparison in the future – and we'll also look to get an orientated drone shot, again for comparison. The final action we're taking is to run through all known ditch crossings and

Recognised  
as industry  
leaders in EP  
good practice

## Review 4 GPG's

- MAHP Emergency Response Plan: *Guidance on Testing*
- MAHP Emergency Response Plan: *Emergency Plan Template*
- MAHP Emergency Response Plan: *Testing and Exercising Pro-forma*
- Pipeline Hazard Distances
  - Review to include the latest JESIP guidance and established practice



**Emergency Planning Working Group (EPWG)  
Good Practice Guide**

Major Accident Hazard Pipeline (MAHP) Emergency  
Response Plan: Testing and Exercising Pro-forma

UKOPA/GPG/012 Edition 1  
September 2016

# What's Next – Utilising our skill set



“How can we help each other prepare for the next emergency ?”

Exercise & Emergency Updates



“Is mechanical damage still the number one risk ?”

Cyber Resilience



“Clear Communication Strategy”

Use of Town Hall events & Business Continuity  
Planning events

# Emergency Planning & Resilience Working Group

**Thankyou**

John Madden  
October 2023