



WATER STEWARDSHIP IN THE CHEMICAL SECTOR

Water-related business risks are set to multiply in the coming decade, with increased flood and drought conditions projected for much of Europe. Chemical producers are acutely exposed to physical and reputational risks emerging in the vicinity of production sites. They also need to find efficient ways to manage manifold regulatory requirements relating to water (for example, substance monitoring and reporting under the Water Framework Directive and REACH Directive).

Many chemical producers have made investments towards ensuring the sustainability of their operations, but lack the means to communicate these achievements to employees, authorities and consumers. Water Stewardship allows chemical producers to derive value from existing water management activities– and continue to improve.

WHAT MAKES CHEMICALS SPECIAL?

There are key unique factors which shape the way water is managed within chemical production that have implications for Water Stewardship:

- ‘Cocktail effects’, where substance interactions in effluent may generate unforeseen impacts;
- Historical pollution issues may represent an ongoing reputational risk to production sites;
- Complexity of supply chains presents a challenge for comprehensive risk assessment;
- Public perceptions of environmental impact may not reflect efforts undertaken to improve performance.

WHAT ARE THE BENEFITS OF EWS FOR THE CHEMICAL SECTOR?

Implementation of Water Stewardship via the **European Water Stewardship (EWS) Standard** allows sites to:



- Identify and respond to local water risks
- Implement a water management strategy
- Anticipate changes in water regulation
- Build trust with authorities and local suppliers
- Communicate their performance to consumers

Water Stewardship is based on a simple maxim: **‘assess, act and improve’**. By taking the steps towards EWS implementation, a site will mitigate all foreseeable risks relating to water. This insurance strategy can then provide a platform for continuous improvement in water performance, and communication of achievements.

Integrating risk management with regard to water quality can yield significant savings by reducing effluent treatment costs. Outreach to authorities and external water users is often a highly effective means of achieving this- a key element of the Water Stewardship concept.

MORE INFORMATION ON EWS & THE CHEMICAL SECTOR

For more information on findings from EWS implementation in the chemical sector please contact m.valle@ewp.eu (EWS Assistant, Industry).



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RISKS	AREAS OF EXPOSURE TO RISK	HOW DOES EWS ADDRESS THIS?
Physical risks	<ul style="list-style-type: none"> • Increasing competition for water resources • Increased incidence of extreme events, eg. flooding and drought 	<ul style="list-style-type: none"> • Precise understanding of water balance, linking water use/discharge with fluctuations in availability • Comprehensive water management strategy, addressing all foreseeable risks and contingencies
Regulatory risks	<ul style="list-style-type: none"> • Regulatory changes occurring with updates to the Water Framework Directive and REACH Directive • Associated increases in water pricing 	<ul style="list-style-type: none"> • EWS helps build monitoring capacity for priority substances (eg. within risk assessment) • Substance control capacity can help drive down effluent treatment costs
Reputational risks	<ul style="list-style-type: none"> • Reputational risk from activities of other water users as a highly 'visible' sector • Public perception of sector as a 'polluter' 	<ul style="list-style-type: none"> • Demonstrates a commitment to transparency and legitimacy in water resource management • Outreach to other water users helps sites understand shared risks- and take steps to mitigate or protect against these risks

EWS Experience

Water Stewardship has been applied across diverse range of operational scales and production activities in the chemical sector. A recent example is the participation of 5 European Crop Protection Association (EPCA) members within EWS 'Pre-screening' pilots, which helped to:

- Communicate a high level of existing performance
- Identify a number of regulatory and reputational risks to each site
- Put all water activities into a common strategy, to mitigate risk and drive improvement

'Out of the Fence' Approach

Since water is a local and shared resource, engagement with other water users is often essential to mitigate the full range of risks. This is a key element of the Water Stewardship concept, taking a number of forms:

- Local Deals- identifying 'win-win' opportunities alongside external users such as agriculture
- Engagement with local authorities and River Basin Management Committees through EWS
- Assessing suppliers on the basis of transparency and reporting of water management performance