ENVIRONMENTAL LIABILITY DIRECTIVE 2004/35/CE





IGI Seminar on EU Directives and the Geosciences
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Environmental Liability Directive (ELD) (2004-35-CE)

DIRECTIVE 2004/35/CE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage

(OJ L 143, 30.4.2004, p. 56)

- Article 1: The purpose of this Directive is to establish a framework of environmental liability based on the 'polluter-pays' principle, to prevent and remedy environmental damage.
- Effective date 1st April 2009 & statute of limitations 30 yrs.
- Hugely significant piece of legislation









The Environmental Liability Regulations (ELR)* S.I. No. 547 of 2008

- in force since April 1st 2009
- put the the majority of Environmental Liability Directive 2004/35/CE into effect
- *Environmental Liability Bill to follow in 2010
 - GMO aspects
 - Legal defences
 - Bill heads published www.environ.ie





Exceptions

- Irresistible natural event (!)
- Armed conflict
- Nuclear
- International maratime conventions for oil (!)
- Diffuse pollution (!)
- National defence





Existing legislation ...

- is unchanged
- but supplemented
- Environmental Protection Agency Act 1992, The Protection of the Environment Act 2003; Water Pollution Act 1977; the Waste Management Act, the Wildlife Act etc ...all still in use
- can be used to deliver the aims of the directive
- can be used in parallel with ELD to achieve remediation aims
- Prosecute under licence
- Clean-up managed under ELD





3rd Parties

- Competent authorities can use ELD to take action not 3rd parties
- 3rd parties may request Competent Authority to take Action
 - Affected by incident: or
 - Sufficient Interest (NGOs etc.)
- ELD does not speak to civil liability
 - 3rd parties may take civil action to seek compensation from an operator

 completely separate to ELD regime





Scheduled Activities under the Environmental Liability Directive / National Regulations

- The legislation applies to environmental damage caused by any of the following occupational activities (Schedule 3 of Regulations):
 - All waste activities
 - Waste TFS
 - All IPPC activities
 - All UWWD licensed facilities
 - All licensed surface water discharges (WPA)
 - All authorised groundwater discharges
 - All APA authorised facilities
 - Road, rail and vessel transport of dangerous goods
 - Management of extractive waste (mines, quarries, peat harvesting)
 - GMO contained use & deliberate release
 - Manufacture, use, storage, processing, filling, release into the environment, onsite transport of dangerous substances & preparations
 - Authorising & placing on the market of biocidal products





Activities covered by Environmental Liability Directive / National Regulations

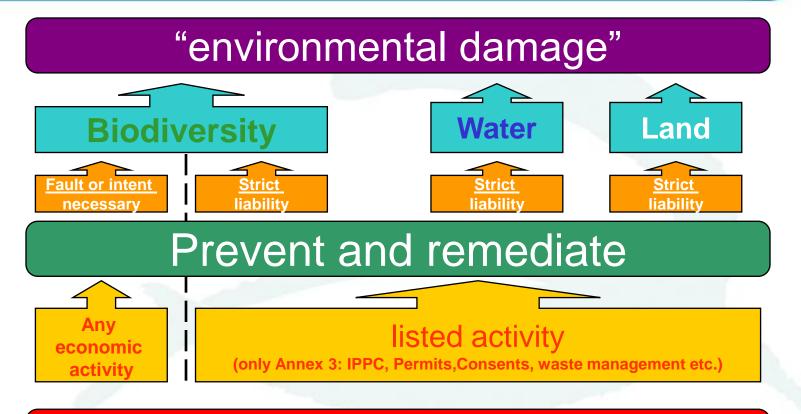
Legislation <u>also</u> covers damage to protected species and natural habitats from <u>any</u> occupational activity where an operator acts or fails to act and he or she knows or ought to have known that his or her act or failure to act causes or would cause such damage or imminent threat of damage.

- Economic Activites
- Strict & Fault Based Liability





Environmental Damage – When are operators Liable?



"Polluter pays"





Territory

- Land Damage
 - All lands
- Water Damage
 - Waters as defined under WFD
 - In Ireland that is up to c.1 mile offshore
- Habitats & Protected Species Damage
 - Land & inland areas (incl. inland waters)
 - Estuarine & Costal areas
 - Full territorial waters (200mile limit)
 - E.g. cold-water coral





Environmental Liability Directive (ELD) - Fundamentals

- The fundamental aim of this Directive is to hold operators (public & private) whose operations have caused environmental damage financially, liable for remedying that damage.
- The ELD also has elements dealing with preventative actions in the event of an imminent threat of environmental damage.
- Environmental Damage
 - Damage to protected species and habitats
 - Water Damage (scheduled activities only)
 - Land Damage (in so far as risk to human health) (scheduled activities only)
- Damage Measurable adverse change in natural resource or impairment of natural resource service





Environmental Damage – Principal Regulatory/Legal Provisions

- Environmental Liability Directive & national Regulations
 - Prevent damage & remedy damage
- IPPC Licensing (Directives & EPA Acts)
 - Prevent, Limit & Remedy consequences of accidents
- Waste Licensing (Directives & Waste Mgt. Acts)
 - Prevent, Limit & Remedy consequences of accidents
- Habitats Directive, Regulations
 - protect & restore damage to habitats/biodiversity
- SEVESO Directive & national Regulations
 - Limit Consequences & 'alleviate the medium and long-term effects' of any accident





Pollution incident imperatives under the ELD

Incident related environmental damage imperatives can be articulated thus:-

To devise a common understanding of the scope and meaning of;

- environmental damage risk assessment,
- environmental damage prevention / risk management / mitigation,
- damage consequence assessment, and
- damage recovery management.





Environmental damage prevention / management / mitigation

- BAT
- Site specific requirements
- Licence Conditions
 - Abatement
 - Monitoring
 - EMS
 - Bunding
 - Materials handling
 - Accident & Emergency Management Plans
 - Notification
 - Cleaner Technology
 - Insurance / bonds
 - **.**..

In the case of EPA authorised facilities only





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Restoration Options under ELD (Annex II)

Primary Restoration/Remediation

- Restoration to baseline conditions / favourable conservation status
- Degree of intervention to be selected (full, limited, none, e.g natural re-colonisation)
- Complementary Restoration
 - Return to baseline not possible
 - Upgrade or improve damaged or other sites, or develop new
- Compensatory Restoration
 - interim losses

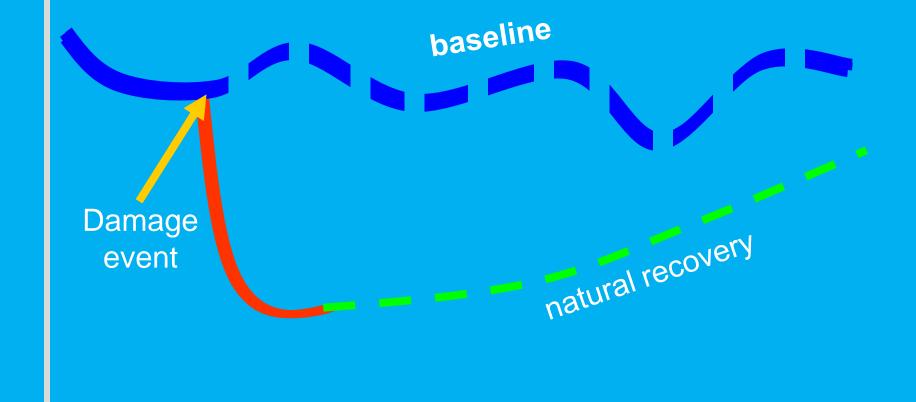




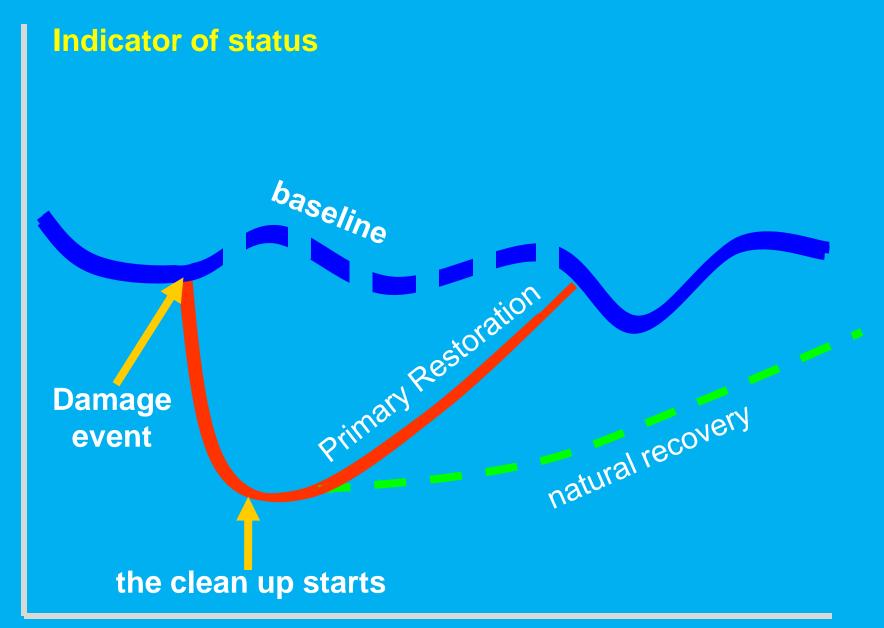
Indicator of status baseline

value baseline

Indicator of status







value

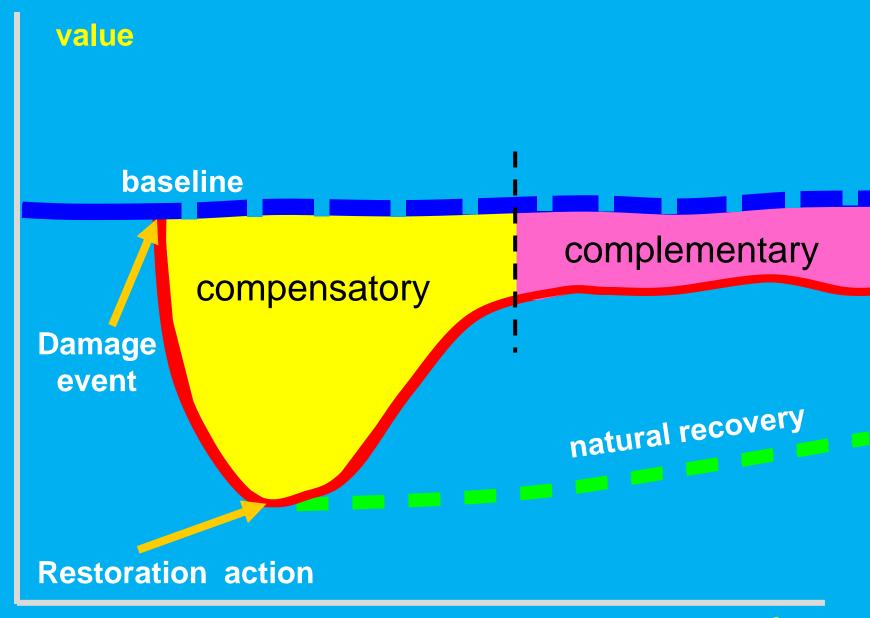
baseline



Remedial action



Indicator of status baseline **Damage** event natural recovery the clean up starts



Restorative Options under ELD (Annex II)

- Emphasis in the ELD is on the Primary Restorative option
- The choice as to which option has to be made by the competent authority(ies)
- Competent Authority is the EPA. However, other State bodies such as the OPW, the Heritage Service (Duchas), Fisheries, Teagasc, Local Authorities, the HSA, etc., will all have a role in advising and informing the competent authority in relation to selection of the optimum solution.





Complementary & Compensatory Outcomes

- Complementary Remediation
 - At site of damage
 - In community of damage
 - Elsewhere
 - Expand existing features (improve amenity)
 - Add new features (improve amenity)
- Compensatory Remediation
 - At site of damage
 - In community of damage
 - Elsewhere
- Complex valuation and equivalency methods to choose appropriate option(s)





For Interim losses or when Primary Remediation is not possible ...

- Habitat Equivalency Analysis
- Resource Equivalency Analysis
 - Resource to Resource
 - Service to Service
 - Value to Value

Selection of an appropriate surrogate or Metric is crucial

Value Equivalency Analysis





Choosing the Remedial Options (Schedule 2 of Regs.)

- The 'reasonable' remedial option should be evaluated, using best available technologies, based on the following criteria:
 - The effect of each option on public H & S
 - The cost of implementing the option
 - The likelihood of success of each option
 - Negative impacts potential of option
 - Degree of benefit of options to elements of resource or service
 - Social, economic and cultural concerns and other local concerns
 - Length of time for remedial solution to be achieved
 - The extent to which each option achieves the restoration of the damaged site
 - The geographical linkage of the damaged site





Economic Evaluation

- Central to the decision as to which or whether, Primary, Complimentary or Compensatory remedial measures should be adopted are the economic principles of Cost Benefit Analysis and Cost Effectiveness Analysis
- The ELD specifically identifies the role of economic valuation techniques in informing decision making.
- For example the ELD states that '... the competent authority is entitled to decide that no further remedial measures should be taken if the **cost** of the remedial measures that should be taken to reach baseline or similar level would be disproportionate to the environmental benefits obtained.

Cost Effectiveness Analysis (i.e. what is the most cost efficient way of achieving the objective?)

Cost Benefit Analysis (i.e. is a given objective worth achieving?)





Remediation Framework

- Applies to Water Damage and Species and Habitats damage
- Land Damage:
 - ...contaminated land be remediated such that it no longer poses any significant risk of adversely affecting human health, with no complementary or compensatory remediation required.





Land Damage I

- Land damage is any land contamination that creates a significant risk of <u>human health</u> being adversely impacted as a result of direct or indirect contact introduction, in, on or under land of substances preparations organisms or microorganisms.
- Implicit that it focuses on:
 - Dermal contact / ingestion
 - Soil vapour
 - Affected water supplies (WFD/Water Damage crossover)
- Significant Possibility of impact on human health





Land Damage II

- Receptor Driven system
- Current or future planned use will be the key factor in deciding if Land Damage has occurred
- Spill of VOCs in an urban area
 - Housing / Gardens
 - Demonstrable pathway to impact on human health
 - Land Damage
- Spill of VOCs in a rural area
 - No houses
 - No demonstrable pathways
 - Not Land Damage





Land Damage III

- Spill of VOCs in a rural area
 - Adjacent to land with planning permission
 - Assessment indicates significant risk of impact on human health in a housing scenario
 - = Land Damage
- Highlights the administrative aspects in deciding whether there is a case of Environmental Damage





Land Damage

- Does not speak to any "non-human health impact".
- Soil contamination for any other reason (that does not qualify under another type of Environmental Damage) is not Land Damage and is not covered by the directive





The EPA's role

- Competent Authority for all aspects of the ELD in Ireland
- Assess possible Environmental Damage has occurred/imminent threat of occuring
- Issue directions to operator(s) to eliminate imminent threat of Environmental Damage
- Where Environmental Damage has occurred determine remedial measures and issue directions to operator(s) responsible
- Recover all costs associated with the Environmental Damage or imminent threat
- Prosecute as necessary any failure to comply with directions issued or failure to pay costs





Future Developments

- ELD Guidance Document and seminar later in 2010
- Environmental Liability Unit
 - Assigned ELD
 - Water Damage (very dependent on OEA)
 - Land Damage
 - Co-ordinate Contaminated Land issue— EPA Licensed sites only
 - Licence enforcement Inspector still the point of contact
 - Recommend Contaminated Land Standards and set out minimum acceptable criteria for reports
 - Environmental Liability Risk Assessment Review
- Consultation in house and with key stakeholders in 2010





Concluding Comments

- Ex Ante Environmental Risk Assessment (for indemnity, etc)
- Complex tasks/processes: Skills required legal, technical & economic & socio-political
- Knowledge of conservation status (baseline) of all protected resources, sites or species would help, but not essential
- Close cooperation between regulatory authorities essential
- Clear resolution pathway for operators & stakeholders necessary
- HEA/REA, choice of metric and valuation essential for cost recovery actions
- Accidents will happen, it is just a matter of when!
- EPA HSA DoT DoEHLG(Heritage) roles & competency clarity
- Relationship to National Emergency Management Planning
- ECJ Judgements, e.g. see Joined Cases C-379/08 and C-380/08, as well as Case 378/08





Environmental Liability Unit

Thank you

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Environmental Damage — Species & Habitats, Water and Land

Damage to protected species and habitats

Damage to water

Damage to land

Reach or maintain "favourable conservation status" of species or habitat Ecological, chemical quantitative status under WFD

Human health

Significant adverse effects

Measurable adverse change

Sufficient to lower the status *WFD 4(7) exempt

Measurable adverse change

Significant risk of adverse effects

Contamination: Introduction of substances





Selected References 1/3

EU Commission (2001). Study on the Valuation and Restoration of Damage to Natural Resources for the Purpose of Environmental Liability. Report prepared for EU Commission by MacAlister Elliot & Partners and EFTEC, reference B4-3040/2000/265781/MAR/B3. Brussels. Refer also web site at http://europa.eu/environment/liability/index.htm

EU Commission (2005). Guidance on the preparation of a safety report to meet the requirements of Directive 96/82/EC as amended by Directive 2003/105/EC (SEVESO II). EU Commission, Brussels.

EPA (2006). Guidance on Environmental Liability Risk Assessment, Residuals Management Plans and Financial Provision. Irish Environmental Protection Agency. www.epa.ie

EU REMEDE (2007a). Deliverable #6A: Review Report on Resource Equivalence Methods and Applications. Report prepared under the EU Commission 6th Framework Programme by Status Consulting Inc., in support of the implementation of the EU Environmental Liability Directive. Published on the EU funded website www.remede.eu

EU REMEDE (2007b). Deliverable #8: Draft Toolkit Document (outline). Document prepared under the EU Commission 6th Framework Programme by consultants *Effec* in support of the implementation of the EU Environmental Liability Directive. Published on the EU funded website www.remede.eu

EU REMEDE (2007c). Deliverable #6B: Use of Natural Resource Equivalency Methods in Environmental Damage Assessment in the EU with respect to the Habitats, Wild Birds and EIA Directives. Report prepared under the EU Commission 6th Framework Programme by consultants Effec in support of the implementation of the EU Environmental Liability Directive. Published on the EU funded website www.remede.eu

Hampton, S. & Zafonte, M. (2002). 'Calculating Compensatory Restoration in Natural Resource Damage Assessments: Recent Experiences in California'. Proc. 2002 World Oceans Conference, California, USA.

Hanley, N. (2002). 'The Economic Value of Environmental Damage.' In, Environmental Damage in International and Comparative Law, Eds., M Bowman & A. Doyle. Oxford University Press.

Selected References 2/3

Irish Government (1984). Framework for Co-ordinated Response to Major Emergency. Interdepartmental Committee led by the Dept. of Environment.

Irish Government, 2002. *National Biodiversity Plan*. Department of Arts, Heritage, Gaeltacht and the Islands, Dublin. [Heritage subsequently moved to the Department of the Environment, see www.environ.ie/en/Heritage]

Irish Health & Safety Authority (2006). Guidance Document: Safety Report Assessment. Dublin. Also www.hsa.ie

Arrow, K., Solow, R., Portney, P., Leamer, E., Radner, R., and Schumann, H. (1993). Report of the NOAA panel on contingent valuation. Federal Register **58**: 4601-4614, January 15th 1993. [the Blue Ribband Panel]

Carson, R., Mitchell, R., Hanemann, W.M., Kopp, R., Presser, S., and Ruud, P. (1992). A Contingent Valuation Study of Lost Passive Use Values Resulting from the Exxon Valdez Oil Spill. Report to the Attorney General of the State of Alaska.

Carson, R.T., Wright, J.L., Csrson, N.J., Alberini, A., and Flores, N.E. (1995). A Bibliography of Contingent Valuation Studies and Papers. La Jolla, California: Natural Resource Damage Assessment Inc.

Carson, R.T. and Flores, N.E. (1996). Another look at "does Contingent Valuation Measure preferences?"-Experimental Evidence. How Compelling is the Evidence? Discussion Paper 96-31, Department of Economics, University of California, San Diego.

Carson, R.T., Flores, N.E. and Meade, N.F. (2001). 'Contingent Valuation: Controversies and Evidence'. *Environmental Resource Economics*, **19**(2), pp 173-210.

Haab, T.C. and McConnell, K.E. (2002). Valuing Environmental and Natural Resources – the economics of non-market valuation. UK: Edward Elgar Publishing Ltd.

Bockstael, N.E. and McConnell, K.E. (2007). Environmental and Resource Valuation with Revealed Preferences – A theoretical guide to empirical models. The Netherlands: Springer press.

Selected References 3/3

Habitat Equivalency Analysis: http://www.darrp.noaa.gov/library/pdf/heaoverv.pdf

http://www.csc.noaa.gov/coastal/economics/habitatequ.htm

Clinch, J.P. and Convery, F.J. (1999). Evaluation and the Environment, in Economic and Financial Evaluation. M Mulreaney (ed). Dublin: Institute of Public Administration Publishers.

Environment Canada (1999). Environmental valuation Reverence Inventory. Published on the web at www.evri.ec.gc.ca/evri

http://ec.europa.eu/environment/legal/liability/index.htm

http://www.envliability.eu/

http://www.envliability.eu/docs/D13MainToolkit and Annexes/REMEDE D13 Toolkit 310708.pdf

http://ec.europa.eu/environment/air/pollutants/stationary/ippc/index.htm

http://ec.europa.eu/environment/seveso/index.htm