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European Union Network for the
Implementation and Enforcement
of Environmental Law

Criteria for the Assessment of Environmental Damage (CAED)

Exercise 1 on screening an ELD land case

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DISCLAIMER

The following CASE STUDY have been freely inspired by real cases, however the real cases have been modified and adapted to training purposes. Hence, the following CASE STUDY must be considered as virtual case.

Land case study



Suspicious of **illegal waste disposal under land**



allegedly **originated from regeneration of waste oil process**, carried out by a waste treatment plant (R9 - oil re-refining or other reuses of oil)



Timeframe: **202? (event) – 2023 (discovery)**



Affected area: agricultural land **used for livestock farming**

What we saw during the site visit...



A first hand account of what might have happened...



A first hand account of what might have happened...



A first hand account of what might have happened...



A first hand account of what might have happened...



Screening process – Step 1

Step 1 **can help to do a first basic screening of a potential ELD land case by checking:**

- natural resource affected and how
- if the occurrence regards hazardous substances for human health
- if there is actual or possible human exposure



Question answering with Slido





 Multiple choice ▾
0 votes


  Poll settings

Q.1 (STEP 1) Which is the natural resource affected?

a) Surface water

 0%

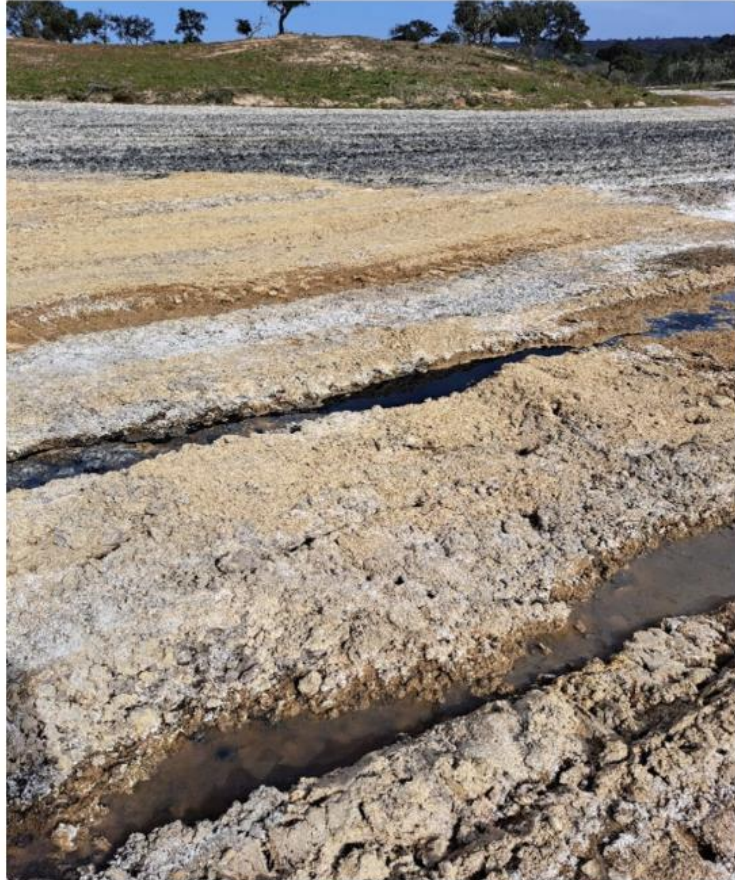
b) Habitats

 0%

c) Land

 0%

+ Add option



Multiple choice ▾
0 votes

  Poll settings

Q.2 (STEP 1) How the natural resource has been affected?

- a) Fallout of hazardous substances on land

0%
- b) Disposal, dumping or burial of waste containing hazardous substances

0%
- c) Large scale spillage of hazardous substances

0%

+ Add option

Further ascertainment ...



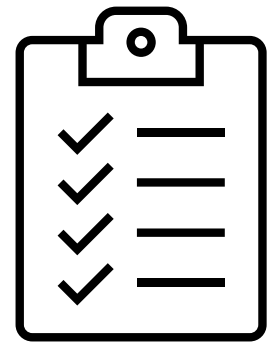
Further ascertainment ...



Screening process – Step 2

Step 2 applied to a land case **aims to:**

- check ELD applicability
- confirm potential land contamination
- confirm human exposure
- confirm possible human health risk for exposed human receptors



Question answering with Slido





Multiple choice ▾
0 votes

  Poll settings

Q.3 (STEP 2) Is the occurrence been caused by any of the following?

a) A natural phenomenon

0%

b) Pollution of diffuse character

0%

c) None of the above

0%

+ Add option



Multiple choice ▼
0 votes

  Poll settings

Q.4 (STEP 2) There was likely land contamination by the introduction of substances?

a) Yes



b) No



c) Not really sure



+ Add option



Multiple choice

• Waiting for votes



Poll settings

Q.5 (STEP 2) What you think of the possibility of human health risk from that contaminated land?

a) I need to collect more info about the past, present and future use of the affected area. Must ask the municipality and interview the plant operator and workers to identify human receptors.

0%

b) No, I think that the waste mass is insignificant, there's no way it can generate volatile organic compounds that create possible human health risk for any exposed human receptors.

0%

c) No, the waste is buried far too deep, there's any risk to any possible human receptors.

0%



Next steps...

- ❑ Established sampling plan (affected area and natural baseline area)
- ❑ Tested for expected contaminants (hydrocarbons, heavy metals, etc)
- ❑ Found significant contamination (petroleum hydrocarbons)
- ❑ FTIR spectroscopy analysis established causal link with waste treatment facility
- ❑ Documented land use during the timeframe



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Thanks for your attention!