

# BGS Career and industry day

## Contaminated Land Management



# Principal Officer at Lithos Consulting Ltd

- Specialised in land contamination for 16yrs
- Worked for LA, EA, Defra, Consultancy
- Introduced to land contamination during industrial placement year with MoD.
- BSc(Hons) Science and the Environment, MSc Contaminated Land Management, Chartered Scientist with BGS and Specialist on Land Condition (SiLC)



# What is Contaminated Land

- Managing the legacy of our industrial history
  - gas works, tanneries, landfills, mining, railways
- Part 2A of Environmental Protection Act 1990
- Redevelopment of sites
  - farms, factories, derelict land, agricultural land, historic landfills
- Town and Country Planning Act (as amended) 2015
  - managing risks from current land use
  - industry, agriculture, waste disposal inc. landfills
- Environmental Permitting Regulations 2010

# How we identify possible contamination

- Initial review of available data
  - Geological maps
  - Historic maps
  - Public register data
  - Site plans
  - Develop initial conceptual site model of anticipated ground conditions and possible risks
- Investigation of ground conditions, identification of contamination
  - Trial pits
  - Boreholes
  - Soil and water sampling
- Risk evaluation and remediation
  - Refined conceptual site model and design remedial options.

**SOURCE – PATHWAY – RECEPTOR**  
(PLAUSIBLE CONTAMINANT LINKAGES)



# Working in land contamination

- Geoenvironmental Consultants
- Environmental Consultants

- Highly variable – no two sites are the same
- Mixture of office and site work
- High level of responsibility on site – leading on key decisions
- Incorporates a range of different disciplines
  - Earth Sciences
  - Chemistry
  - Biology
  - Environmental science

# Qualifications and progression

- Earth Science or Environmental Science Degree
- Further qualifications
  - MSc Contaminated Land Management
  - Chartered geologist / scientist with BGS; CIWEM; CIWM; others
  - Specialist in Land Condition (SiLC)
  - Accreditation in specific disciplines (SoBRA)
  - National Quality Mark Scheme (NQMS)

# Career Opportunities

- Regulatory officers within Local Authorities and Environment Agency
  - Opportunities are limited at the moment and often based on variable roles within Environmental Health or Groundwater Resource and Quality; but provides a good understanding of different legislative regimes.
- Consultancy
  - Expanding sector with many opportunities in large and smaller consultancies. Usually multidiscipline role with variable clients (developers, land owners, industry)
- Industry and private sector
  - Insurance companies, Solicitors, Infrastructure providers; opportunities are increasing as organisations look to consider environmental issues in-house.



Any Questions