

Metal Theft

Neighbourhood Policing Toolkit

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Metal Theft

Introduction

Theft of metals such as cable, lead and redundant railway assets costs the British economy an estimated £770 million per year. Metal theft adversely impacts on day-to-day life through disruption and financial implications.

This toolkit is aimed specifically at Neighbourhood Policing Teams (NPTs), but can be used by all police officers to assist in providing relevant advice to organisations that may be vulnerable to this type of crime.



Metal Theft

Why metal theft?

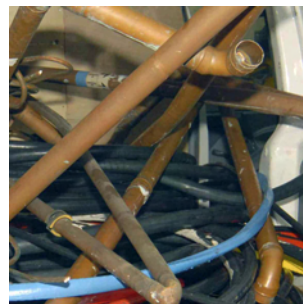
Over recent years the price of metal has risen considerably driven by various global economies and increased demand. Copper prices were around \$5,000 per tonne at the start of 2006 compared to \$7000 per tonne at the start of 2010. Although the price has fluctuated considerably (between \$3,000 and \$8,000 per tonne), the increase in the value of copper has led to a rise in metal theft.

What metals are being stolen?

No metal is currently immune to being stolen, but a combination of value, demand, quantity, uses and ease of theft makes some metals more prone to being targeted than others.

Copper

As mentioned above, the price of copper over recent years has risen and as a result it has been stolen in large quantities. Copper is a highly conductive metal and has many electrical uses (65% of copper being used for electrical purposes) such as electricity transmission, distribution and power supply to railway rolling stock. Drums of copper cable have been stolen from telecommunication compounds, building sites and railway yards amongst other locations. Copper thefts also occur from individual buildings, sculptures in public and private locations and coin collections.



Lead

After copper, lead is the next metal most targeted for theft. Lead is used as waterproof flashing on roofs as well as in batteries and as a soldering material.



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Iron and Steel

Iron and steel are used extensively in the construction and transport industry for example iron girders and joists or railway tracks. They are relatively strong metals and can be used in many different situations.



Aluminium

Aluminium is a strong, lightweight and flexible metal which is used in many aspects of everyday life, from construction and electricity to transport and water. In many instances, aluminium has replaced copper due to its weight and conductivity.



Other metals

Platinum, palladium and rhodium in particular are very expensive metals and all are present within catalytic converters in the exhaust systems of motor vehicles. As a result, many vehicles have been targeted and their exhaust systems removed.



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Who is committing these offences?

There is no one group in particular responsible for committing these offences. Level 1 local offenders, Level 2 offenders and Level 3 organised crime groups are all actively involved in metal related theft. There is also evidence and intelligence to suggest that some of the offences are committed, or facilitated, by workers within the industry.

Where is metal being stolen from?

Locations being targeted by offenders include:

- Hospitals and schools
- Residential properties and building sites
- Scrap yards
- Storage yards, depots, builders' yards and merchants
- Stately homes and other historical sites
- Cemeteries and war memorials
- Farms
- Faith buildings
- Railway lines and infrastructure
- Electricity high voltage sub-stations (400kV - 11kV) and electricity pylons
- Telecommunication systems and communication masts
- Water and sewage works

It should be noted that wherever there is metal in use or available, there is a risk of it being stolen.



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What is the impact?

Dependent upon the victim/location of the theft, the impact can vary.

Faith buildings

Faith buildings tend to be targeted for the lead on their roofs which is used to prevent water incursion during poor weather. Many faith buildings nationally have been raising funds for structural repairs and the theft of lead has exacerbated that problem. Removing the lead from a roof can allow water to leak in and damage roof timbers creating more problems for the authorities.



Storage yards, depots, etc.

Most projects, particularly large ones, require a large amount of equipment and materials and therefore storage areas are necessary. If the materials or plant equipment required for the work are stolen from these sites then delays and additional costs can be incurred.

Water and sewage works

Providing clean water and removing sewage waste is something we all take for granted. However, this service can be interrupted if equipment used for cleansing and sterilising water is taken out of use due to the damage or theft of electrical equipment.

Electricity substations and pylons

Most of the world's copper is used within electrical applications, either for industrial or domestic use. If the supply of electricity is interrupted the effects can be widespread.

For domestic customers a lack of electricity could mean limited access to lighting, heating, and communications. If the elderly or infirm are caught up in such a power cut the consequences could be serious.

For industry a power cut will affect production and reduce output. The length of time the industry is out of action can adversely affect the local, regional or national economy.



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Telecommunications systems

As with water and electricity, telecommunications are a vital element of today's society, without which routine and emergency calls cannot be made. The most serious impact of communication failure would be felt by frontline emergency services which would be unable to receive communications from the public. It could also affect police communication as the Airwave system and command and control systems can be affected by cable thefts. Additionally, routine domestic and business calls could not be made thereby affecting industry and everyday life.

Hospitals, schools, etc.

Not only would domestic and industrial applications suffer if power, telecommunications or water supplies were disrupted by metal theft, but other vital parts of the community could suffer as well. Schools may be forced to close if they have no power and hospitals forced to deal differently with both emergency and non-emergency cases (though hospitals will have contingency plans in place to deal with such incidents).

Cemeteries and war memorials

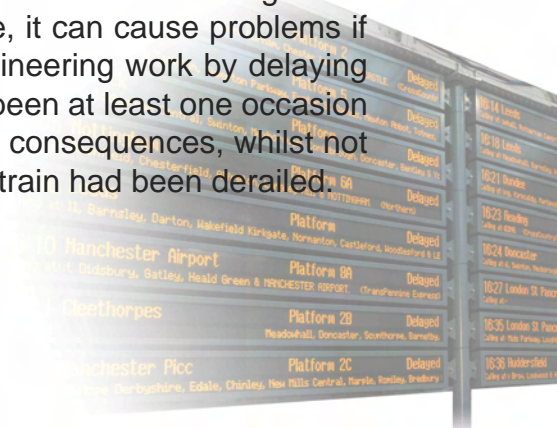
Recently there has been a spate of thefts from war memorials of the plaques listing those who died serving their country. These thefts are upsetting to the community and to the relatives of those listed on the memorial.

Residential properties and building sites

There have been thefts of external copper piping from houses, including gas pipes – the effects and dangers of which could be devastating. Where materials are stolen from building sites, work schedules are affected and costs increased.

Railway lines and infrastructure

Cable on the railway is used for power and signalling. The theft of “live” cable can prevent trains from running. When the power supply for rolling stock is interrupted trains are unable to operate. Additionally, if signalling cable is stolen all signals will fail and services will be disrupted. Newly laid but not yet operational cable is also a target and whilst stealing it has no adverse effects on the train service, it can cause problems if the cable has been laid as part of planned upgrade or engineering work by delaying the project and adding significantly to the costs. There has been at least one occasion where a vehicle used by a thief has been hit by a train. The consequences, whilst not serious on that occasion, could have been disastrous if the train had been derailed.



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Other locations

Whilst the effects of metal theft from locations such as historical sites, farms and scrap yards are not as widely felt, they can cause issues such as loss of income or inability to promote their work in the event that a theft of historical or religious value takes place. One high profile case involved the theft of the Henry Moore sculpture “A reclining figure” in 2005, worth at least £3million (Henry Moore sculptures are situated at numerous public and private sites across West Yorkshire).

General issues

As well as the specific circumstances mentioned above, cable theft or damage can interrupt other aspects of our lives:

- Sporting events could be disrupted due to power failure
- Traffic management systems may go down causing congestion to build
- Pop concerts may be interrupted or cancelled
- Air travel could be disrupted
- Postal distribution networks could be affected
- Shops and shopping centres may have to close if power or telecommunications go down

Finally, it is necessary to consider the dangers that stealing high voltage copper wire, as well as trespassing on railways or in substations, can pose to the offenders committing such offences. Individuals have been electrocuted, burnt and otherwise injured or killed whilst in the process of stealing or attempting to steal cable or metal from areas which are inherently dangerous locations.



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What can you do?

There are a number of tell-tale signs that metal theft may be taking place. NPTs should be familiar with their local environment so they can be aware of suspicious activity taking place. Here are some specific pointers to look out for.

- Unmarked vehicles at or near construction or vulnerable sites. Most organisations have marked vehicles with visible company details. It is accepted that some companies or other individual workers will have unmarked vans and enquiries should be made with the drivers.
- Most construction and building sites have their hours of work restricted by the planning consent; if there is activity on the site outside these hours enquiries should be made. The local planning authority will know the hours attached to any planning consent within their area.
- Enquiries should be made if there are non-uniformed personnel on the railways. Network Rail stipulates that all workers and contractors must be in orange high visibility clothing (both upper and lower body) with the name of the organisation for whom they work on the rear of the upper clothing.
- If you come across any unlocked access gates into a building, construction or railway site with no work taking place, you should investigate it. Apart from the health and safety issues this presents, there's a possibility that thieves have been and gone. Check the area both inside the perimeter and outside, as cable is often cut up on site and left in the locality for later collection.
- Staff working on electrical compounds and other types of infrastructure will probably be doing so at recognised work times with recognised safety equipment. Always engage with any workers as they will be more than happy to speak with you.
- Many electrical compounds are not routinely staffed. If personnel are seen on site you are encouraged to make contact to ascertain their legitimacy for being there.
- Thefts are not just taking place in compounds. BT suffers with them at the roadside where thieves remove manhole covers then cut and drag the cable away. If you see any work going on which raises suspicion (eg. there is an unmarked vehicle nearby) it's always worth a stop check.
- Reports of black or acrid smoke can indicate offenders are burning the sheath off cable. Cable commands a greater price when sold with the sheath removed.
- Approximately half of all stolen cars are never recovered and many of those are broken for spares and weighed in. When visiting unlicensed scrap dealers and unregistered garages make a note of registration number plates (VRM) and Vehicle Identification Numbers (VIN).

Metal Theft

- Engage with the local community around building and construction sites and encourage them to report any suspicious activity, particularly outside of operational hours.
- Engage with site operators to understand the scope of their operations, such as times of work and any major deliveries of materials that may be attractive to offenders. This will help to gain a full picture of the on-going activity expected on the site.
- Visit the sites outside of operational hours to ascertain if any activity is taking place. A police presence may disrupt the activity of any criminal in the area.
- Check the site boundary to look for any signs of preparatory activity for theft, e.g. damaged fencing or gates. Offenders have used markers on fences such as drink cans, old clothes and lanyards to indicate an area where cable is vulnerable to theft.
- It is also known that some offenders use graffiti style signs on infrastructure and pathways to indicate where cable is vulnerable to theft.
- Visit the scrap metal dealers in your area both from a Neighbourhood Policing perspective (getting to know your patch) and from an enforcement perspective using your powers under the Scrap Metal Dealers Act 1964 if needed.
- Offer the services of the local Crime Reduction Officer.



Possible stolen vehicles

Undrained vehicles containing toxins

Unidentified chemicals

Incorrect battery storage

Metal Theft

Effective disruption and detection of metal theft

Metal theft is widespread throughout the criminal fraternity. Disposal of metals is facilitated through scrap metal dealers. Once metal has been received by a licensed scrap dealer the metal become legitimate.

The stolen metal is acquired by street offenders who when arrested will ultimately receive a small fine or warning. This has proved ineffective as a preventative measure.

The main dealers are licensed and cooperative and due to the nature of the items being weighed in are unable to differentiate between stolen or legitimate metals.

This leaves the unlicensed scrap metal dealers who often work out of lock ups and garages. The Environment Agency hold many powers enabling them to gain entry to suspect premises. By working with partners it is possible to remove the unlicensed metal dealers responsible for processing much of the stolen metals. One West Yorkshire NPT has reduced their metal thefts by 44% after implementing a number of multi agency days of action.



Metal Theft

Crime prevention advice

Providing crime prevention advice to victims of crime and those vulnerable to offenders is fundamental to reducing metal theft within your neighbourhood.

Divisional Crime Reduction Officers should consider proactively promoting site surveys to managers of vulnerable premises. Members of the public may obtain further accredited advice from www.securedbydesign.com including approved crime prevention and security products.

Property security can be improved by removing and securing ladders and tools from the exterior of properties, trimming hedges and foliage and improving the lighting. Various companies offer a range of anti climb and property marking products. Due to the toxic and hazardous nature of some of these products, it is advised that the Highways Act 1980 (section 164), the Occupiers Liability Act 1974 and any other relevant legislation is considered before any products are utilised. These are some suggestions however there are a wide range of simple crime reduction options.

UV Property Marking

Traceable products include coded paints from various companies. These paints can be viewed under UV light and can be traced to the original owner via markers within the paint.

UV marker pens are an inexpensive way of writing the property's postcode onto items.

It is imperative that the environmental condition in which the paint or markers may be exposed to is considered when choosing the product.

External Property Protection

Anti climb paint may be applied 2.5mts above ground level but due to the paint's toxic properties a full risk assessment compliant with health and safety regulations must be completed before application.

Anti climb drainpipe covers can be added to the property to reduce the likelihood of an offender climbing onto the roof.

Roller barriers, spikes and barriers can be fitted to vulnerable areas of buildings (subject to survey and planning consent).

The purchasing of these products is entirely at the owner's discretion and the Police cannot directly recommend any manufacturer or fitter. Property owners can however gain advice from the Secured by Design website and manufacturers bearing the Secured by Design logo have been approved by the Association of Chief Police Officers (ACPO).

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Working with other agencies

Other enforcement agencies are likely to have an interest in workplaces from which scrap may be stolen and in scrap dealers who may process stolen metal.

Consider partnership working during the planning stage of any operational initiative to check for additional intelligence about potential targets. This will include a wide range of enforcement agencies ensuring that operations do not conflict with other planned activities. Other agencies may be engaged in enforcement activities with potential targets which may present legal procedural difficulties. Relevant agencies include:

Environment Agency

The Environment Agency must be contacted prior to any raid. Details of your divisional contact can be found at www.environment-agency.gov.uk and full details of their powers can be found via the following link

www.environment-agency.gov.uk/business/regulation/31851.aspx

How the Environment Agency regulate the scrap metal industry;

Permits

Anyone dealing in scrap metal must hold either a permit or an exemption with the Environment Agency. Larger sites will have a permit, which is a long-term authorisation allowing a named individual or company to keep and treat scrap metal. A permit has a list of conditions which the holder must comply with. Failure to comply with these conditions is an offence.

Exemptions

An exemption is similar, but is for smaller sites where the environmental risk is lower. The conditions are fixed. The operator must register this activity with the Environment Agency.

Waste Carriers

In addition, anyone who carries scrap metal which they have not produced themselves must register with the Environment Agency as a waste carrier. Failure to do so is an offence. Anyone who passes their scrap metal onto someone who is not registered is also breaking the law.

Compliance

The Environment Agency carry out regular checks at permitted and exempt sites to make sure they are complying with the conditions. They also periodically make road side checks of waste carriers, in partnership with the police and local councils.



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Paperwork

Any movement of scrap metal must be accompanied by a waste transfer note. This document must contain a description of the scrap metal and the details of the producer, carrier and site where it is to be taken.

For scrap metal that is hazardous a consignment note must be completed. This is similar to the transfer note but has additional information about the producer, carrier and receiving site.

On an annual basis every permitted scrap site must provide the Environment Agency with a summary of the type and amount of metal waste received and removed from the site.

Anyone who moves, transports or receives waste must also keep copies of the transfer note or consignment note.

In addition, any site that receives hazardous scrap metal must send the Environment Agency a return every three months which details the type of waste, if it is hazardous and where the waste came from.

The Scrap Metal Dealers Act 1964 requires every scrap metal dealer to register with the local authority. Under the requirements of this Act the site must maintain a register which includes the following information.

- The description and weight of the metal received.
- The date and time of receipt of the metal.
- If the metal is received from another person the name and address of that person.
- The price of the metal if it has been ascertained at the time the entry is made in the register.
- If no price has been ascertained, the estimated value of the scrap metal.
- The registration mark of any mechanically propelled vehicle used to deliver the scrap metal.

Each permit and the standard exemption states what the operator must do on site. They are not permitted to do any of the following:

- Burn waste on site (unless in an authorised incinerator)
- Treat the waste with chemicals (such as acid baths)
- Dispose of waste on-site (such as burying)

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The Local Authority

The Local Authority Environmental Licensing Team has the power to issue individuals with a Section 34/5 Notice and Producer under the Environmental Act 1990. The individual has up to fourteen days to produce a licence for the transfer and control of waste. If the licence is not produced a £300 fine is issued by the Local Authority.

Police officers have the power to stop vehicles on the road, this makes working with the Local Authority more effective.

The Local Authority Trading Standards, Environmental Health Department and Local Authority Planning and Development Control Department are a useful point of contact in determining the level of support needed and in identifying the appropriate legislative powers for metal theft disruption/reduction.

Health and Safety Executive www.hse.gov.uk can offer support and in some cases appropriate powers for the disruption of metal theft.



Metal Theft

Health and safety considerations

Many of the licensed sites mentioned within this document have inherent dangers such as moving trains on the railway, the danger of electrocution in electricity sub-stations and moving machinery on building sites.

Prearranged site visits will be properly conducted by the person in charge of the site who will be responsible for visitor health and safety. In advance of entering such premises in an operational situation, consider how you can familiarise yourself with likely risks.

The unlicensed sites hold many more dangers and a full health and safety assessment must be carried out before entry to the site. Unlicensed scrap metal dealers will have sharp metals stored inappropriately; chemicals and petroleum products incorrectly stored and disposed of. Many of the chemicals present in scrapped vehicles and machinery is highly toxic for example battery acid and anti freeze.

You should take your own, colleagues' and the public's health and safety into account when assessing the need for immediate unaccompanied entry by completing a dynamic risk assessment. Staff planning operations must complete a full risk assessment to include recommendations for the use of personal protective equipment. Assistance in completing a risk assessment can be obtained from internal Health & Safety depts and the Environment Agency.

Hazardous Waste

Some scrap metal and its generated waste is hazardous or dangerous. The following is a list of common hazardous scrap metal.

- Scrap cars that have not been drained or 'de-polluted'
- Lead acid batteries
- Television and computer monitors
- Some types of fridges and freezers (containing CFCs)
- Some electrical sub-station equipment, containing oil



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Radioactive sources

In addition to the above, there have been incidents where scrap metal items containing radioactive sources have been identified at scrap metal sites. These sources are heavily regulated and a register is kept by the Environment Agency. However, some redundant sources may not be accounted for or may get stolen. Many scrap metal sites do not have detectors for radioactive waste and it may go undetected. A recent incident at a large furnace where an undetected source had entered the feedstock, rendered a significant quantity of metal radioactive.

Typical metal items containing radioactive sources include medical equipment, some mobile equipment (e.g. components from combine harvesters), measurement and gauging instruments and radiography devices. They should have a trefoil label on them which indicates they contain a radioactive source. However, this may not always be the case.



If officers discover a source they must contact the Environment Agency and their own force's Counter Terrorism and Security Adviser.



Environment Agency Contacts

24hr incident hotline
General Enquiries line

0800 807060
08708 80 70 60

Metal Theft

Legislation

An overview of legislation available to Police Officers during the disruption, investigation and detection of metal theft is detailed below.

Stop and search

Power - under section 1 of the Police and Criminal Evidence Act 1984, a constable can stop and search any person or vehicle.

Officers must also consider Code A.

Use - only when reasonable suspicion.

Must have - objective element.

Objects of search -

(i) Offensive weapons

(ii) Articles for use in connection with certain offences;

- theft
- burglary
- fraud
- twoc/twla
- destroying or damaging property

(iii) Prohibited fireworks

(iv) Bladed or sharp pointed article.

Extent of search; any person or vehicle.

Where exercisable - public place or private land (not dwelling) where person is believed to be a trespasser.

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Offences

Theft Act 1968 – various theft offences

Criminal Damage Act 1971 – damage caused by removal of metal

Scrap Metal Dealers Act 1964 – for offences relating to registration of scrap metal dealers and a right of entry to inspect records.

Also consider specific offences relating to railways and power stations such as endanger safety of person conveyed by railway

Proceeds of Crime Act 2002 – confiscation orders – to be considered when gathering evidence.

Legislation can be found on the Police National Legal Database (PNLD) by using the quick search facility and entering the reference code:

S1 - Theft Act 1968

S11 - Criminal Damage Act 1971

S118 - Scrap Metal Dealers Act 1964

S477 - Proceeds of Crime Act 2002

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Scene attendance; minimum standards

On attending or discovering an unlicensed scrap metal dealer you have identified a crime scene therefore the **STEELS** process is the minimum standard for investigation.

S Safety and Supervision - Scrap metal premises contain jagged sharp metals, chemicals and machinery - think before you act! You will need to carry out a dynamic risk assessment to ensure your safety and those attending. Consider contacting your supervision to ensure that you receive the appropriate level of resources and support. If entering premises as part of a planned operation the operational risk assessment must prescribe the correct personal protective equipment for all staff.

T Traders - Take a full suspect description including the details of vehicles, known associates and employees. Take positive action through the initial investigation to trace any suspects and record your actions. On arrest remember to secure and preserve evidence, recover suspect's clothing/footwear and where appropriate conduct thorough searches at the place of arrest and at the home address of the suspect under section 18/32. Consider searching for tools and equipment used to carry out thefts. Secure and preserve these for forensic examination. Interview all persons present at scene. Obtain intelligence on associates, vehicles, property re POCA for intelligence and ANPR.

E Evidence - Preserve evidence for forensics, high tech and POCA e.g mobile phones and computers. Recover/note CCTV locations at or nearby the scene.

E Everyone - Work as a team with partners to ensure that all lines of enquiry have taken place in a timely manner. Make a note of witnesses at the scene and where appropriate take statements. Obtain first descriptions and make a documented record. Provide all potential witnesses with your contact details. Record their potential for VIPER.

L Log - Obtain full details of the offence. Record details accurately on NICHE or a similar crime recording database describing exactly what enquiries have been made during the initial investigation to meet common minimum standards of investigation. Remember the importance of correctly seizing, exhibiting and securely storing all property (refer to local force guidance for full details of cash seizure).

S Scene - Any investigation begins at the point of discovery. It is important that you adopt the golden hour principles for scene management (identify/secure/preserve). This will include scene preservation, Scene of Crime Officer attendance and supervisory control. Remember to record your observations and actions in your pocket note book. Consider conducting enquiries with people who live or work around the premises. Your searches should not be confined to the scene and consideration should be given to searching adjacent land and outbuildings. When examining scrap metal consider the use of UV torches which help to identify marked property. You should always examine vehicle parts to check serial numbers and registration plates. Checks on vehicles parked nearby may lead to further valuable intelligence. Remember POCA guidance and advice.

Metal Theft

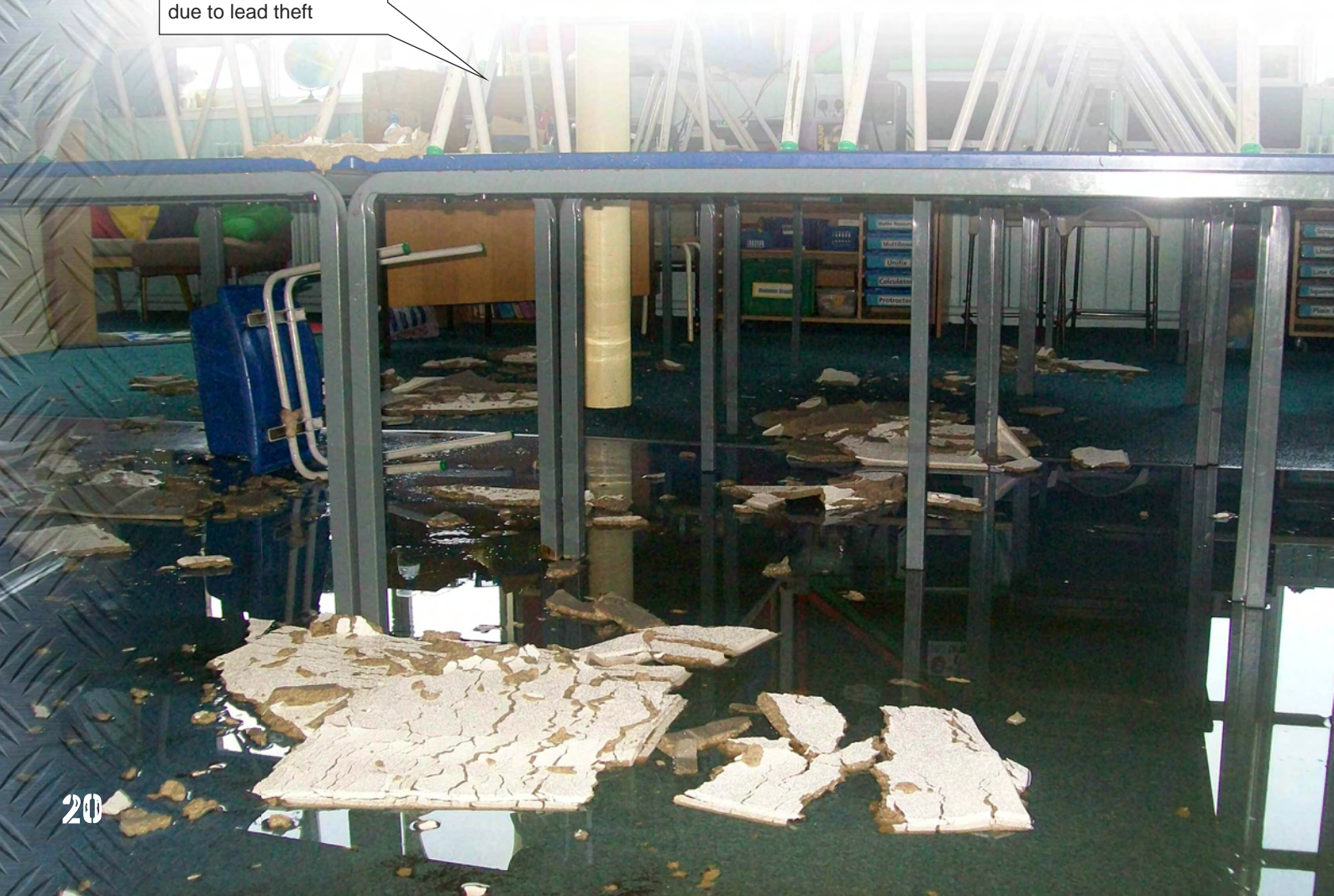
Conclusions

The effects of metal theft are wide-reaching. It may impact on the confidence that communities have in the local police. The impact on local industries will range from local safety issues, transport delays and powercuts.

Faith premises may be targeted for the lead on their roofs and precious items and memorials. Theft of this nature is likely to have a significant impact on public confidence.

It is important that as a member of a neighbourhood policing team, response team or as a detective you are aware of the serious nature of metal theft and that your actions are given the considerations contained within this toolkit.

Flood damage caused at a Yorkshire school due to lead theft



Metal Theft

Published by West Yorkshire Police - Local Policing Department April 2011

Assistance and comments from:
British Transport Police
Environment Agency



