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# **TITLE: INNOVATIVE WAYS TO DEAL WITH METAL THEFT**

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## **Abstract**

Metal theft has become a major headache for municipalities. Anything that is not welded down used to be the prime target. However, this is no longer the case. All metal items have become the target of thieves and vandals. Even the re-enforcement in concrete is no longer spared. Industry's answer was alternate materials, but this also now proves to be problematic.

The origin of this needs to be further investigated and most of the blame is placed at an increase in drug use and other anti-social behaviour.

Looking at the City of Cape Town's approaches may assist other cities to improve on what was used. The City employed a multi-pronged approach and had some successes.

One way was to look at the legal aspect as well as the social and engineering aspects.

Cities are increasingly under pressure to deal with metal theft as more people opt to litigate when they are injured due to open manholes.

The City also established a metal theft unit that deals with the enforcement of anti-theft operations. The City also revised the engineering standard for covers and frames to assist in the prosecution of those caught in possession of City property. Cities are evolving as urbanisation increases. We also need innovative approaches in dealing with this problem.

## **Introduction**

Municipalities have a constitutional mandate to provide for services to communities it serves. These services include Utilities (water, electricity, sewer and waste management), access and mobility, parks and recreation and other amenities. These services must be designed and installed taking into account the safety of the user at all times. Municipalities thus have the Duty of Care to ensure the safety of user of the infrastructure. This duty of care includes all reasonable steps to ensure the safety of the general user and public. Furthermore, municipalities in terms of the Municipal Systems Act, they are to provide for mechanisms whereby stakeholders can lodge any complaints pertaining to services or infrastructure.

It is a well reported fact that municipal infrastructure is being vandalized especially those consisting of metal and non-metal of scrap value or salvageable value. In a news report, the then Mayor of Cape Town (2007), Mrs. Helen Zille stated that the continuous theft of metal could bring Cape Town down as a tourist hub. The same article stated that South Africa was exporting copper to China, while it had no copper mines. The effect of this is often seen and felt by commuters on the rail network with excessive delays due to cable theft. There appears to be two types of metal theft, the organized syndicates and the petty thefts to make ends meet.

The focus of this paper is not to look at the syndicates that operate within South Africa as this requires a huge amount of intelligence. It rather focuses on the quick wins of getting to the sporadic removal or thieving of metal objects that has as much a dire consequence of society as the syndicated operations. Most is based on experience working in these communities and successes we had in curbing and addressing the problems.

## **The Scrap Metal industry**

The scrap metal industry is governed by an industry organization called the Metal Recyclers Association of South Africa (MRA) (Formerly the Metal Merchants Association). The MRA has a comprehensive

constitution that urges members to do business ethically, lawfully and environmentally compliant. In the articles of their constitution, they further state that members are to operate within the confines of the Second Hand Goods Act of 2009. This act prescribes that every person or company that wants to trade in Second Hand Goods, for example ferrous and non-ferrous metals, must be registered with the national commissioner. This registration is also specific to that particular site and dealers cannot trade on different sites with the same registration.

Within the constitution of the MRA, provision is made for the imposition of a fine for members. The MRA regulates their members by a code that states that members must trade according to current legislation, to promote the protection of the environment, to avoid purchasing or handling materials suspected of having been stolen and to co-operate with and support all persons in an endeavor to stop unlawful practice.

The act and the code of conduct of the MRA focuses on the conduct of the dealer and do not look at the perpetrator.

The monitoring of members is entirely up the MRA and is limited to its membership

### **The Social Issues**

The country is plagued by high levels of unemployment that is around 24% according to Statistics South Africa (STATSSA) in their 2014 quarter four report. What is also meaningful about these stats is that the distribution of unemployment is focused in some sectors of the population and is geographically clustered. There is a direct correlation (as seen in Table 1) between unemployment and the number of manhole covers missing as reported by the public and what is replaced by City staff.

As high levels of unemployment persist, people are resilient and look for other ways to make ends meet. The recycling industry appears to be the most accessible to communities and has become the solution for many to put food on the table.

In their despair, many turn to mechanisms to be able to deal with the stress of not being able to provide for their families. Some of these mechanisms are alcohol and drugs. These mechanisms then turn into addictions that become the order of the day that needs to be fed all the time. In the cycle of addiction, the addicts will turn to whatever means there is to satisfy their craving for their habit. This results in many turning to a life of crime where anything of value is removed or stolen and sold for a fraction of its value. At this point in time, the consequences of their actions are not comprehended and the addiction becomes the focus. This was reported in the media, Independent online (IOL), 19 June 2007, where a young man of 15 years old was electrocuted twice in one year attempting to steal an electricity cable.

This scrap is many times accumulated in backyards and then later sold for cash.

Within communities in poorer areas, the level of cooperation is very low and the sense of ownership is also low. Everyone knows who the perpetrators of crime are, but no one will speak out. It is as if communities are being held hostage within their own neighborhoods.

The theft of streetlight cables also perpetuate the cycle of crime as it takes municipalities longer to attend to this problem as it needs to re-instate a service that in most cases will get vandalized again. In all the cases where electrical cable is sold, it is stripped by burning it. This creates a pollution that is affecting the health of the surrounding residents.

Water meters and brass taps often become the target of thieves. Apart from the water loss, the residents in question then remain without water until the municipality can reinstate the service.

The issue around social is the crime triangle where the perpetrator has enough opportunity to commit the crime.

### **The Matchmakers (Scrap dealers)**

Where metal is stripped down illegally, it becomes more difficult to dispose of it. This is where scrap dealers become the matchmakers. At the registered MRA scrap dealers, more scrutiny takes place and these scrap dealers are sometimes avoided by those who illegally obtain scrap metal. This is the point where the unregistered and unaffiliated scrap dealers become the matchmakers. They are normally in the residential neighborhoods that operate outside of the confines of the law and pay less than the mainstream dealers. This is also where the demand is pushed up to be able to keep the income at the same level. Normal collection of scrap in the street and from bins do not yield the same volume to maintain income and this is where the manhole cover in the road or electric cable start to look very tempting. In unconfirmed allegations it came to light that these illegal scrap collectors also place orders for specific goods.

In most cases, scrap dealers shut themselves in from the unintended consequences of their business. In areas where Scrap dealers trade, it is a common site to see excessive dumping and vandalizing of other infrastructure. Composite materials are hammered apart on the kerbs and on the footways. This destroys the infrastructure and affects the overall look of the area. Dangerous components are left in the street and no regard is given for the pollution aspect.

### **The Real Problem – Actual cases**

The obligation of cities to protect its citizens was tested in the courts of South Africa. When manhole covers and inspection covers are removed from their place, it leaves a gaping hole. This is problematic in areas where pedestrians need to traverse the area and where vehicles need to drive. With the social problems looming, areas where manhole theft is prevalent, the City or Municipalities are not always aware of these holes. It relies on the general public to report this to the City for appropriate action. Two phenomena are rearing its head in this postmodern society. One is where citizens do not report defects to the Municipality and the other is where we have an insatiable urge to sue.

This exposes the Municipalities to Delict, which relates to conduct of failure to warn road users of danger. In many court cases Municipalities were taken to task about this duty of care. Some of them related to other infrastructure, like in *City of Cape Town vs Bakkerud*, 2000(3) South Africa 1049(Supreme Court of Appeal), and *October vs Nelson Mandela Bay Metropolitan Municipality* (12 Dec 2008 – unreported). In both these cases the court ruled in the favor of the Municipalities concerned. However, in the *Butise vs City of Johannesburg and Others* 2011 (6) South Africa 196 South Gauteng High Court, Johannesburg; and *Cocayne vs City of Cape Town* (November 2013- unreported) the courts ruled differently.

This saw new case law being created for more legal action. Both Butise and Cocayne were injured when they fell into open manholes. The courts were not interested in budgetary constraints that Municipalities have to replace covers. They were also under the impression that municipalities have the resources to have foot patrols to identify missing covers and should not only rely on the public to report missing covers.

With this in mind is obvious that the issue of metal theft needs urgent interventions. Interventions that is relevant to the cost of the infrastructure.

### **The Legal processes**

Theft is defined by a person having the intention to deprive or take property with the intention not to return such items and action without the permission from the owner of such property. (Law of Evidence course notes).

In the Criminal Justice system of South Africa, crimes are reported to the South African Police Service, who will investigate the complaint and refer the findings of the investigation to the National Prosecuting Authority to prosecute these cases. If we look at the crime statistics in the country, is difficult to think that the theft of a metal object will be treated the same as murder and other more serious crimes. However, one must always be reminded that the degree of the crime is not what makes the crime, as theft is theft.

In the event when the police arrest suspects in the dealing of stolen goods for example manhole covers or balustrade railings. During the investigation phase, the Police will need the owner or his representative to file an affidavit in identifying the goods and confirm ownership. In most of the cases, that deponent needs to testify in the Court as to the contents of his affidavit. It is a daunting task to be seated in a packed court room with the family and friends of the accused especially when intimidation kicks in. The court system does not provide special protection for witnesses or special treatment. Should you not be present as a witness, the case can be scrapped off the court role.

In some cases the perpetrators of metal theft are homeless people. In natural justice, the punishment must fit the crime. The question is whether it is a fair judgment to send a homeless person to jail for metal theft. Would this not be a case of providing shelter to a homeless person placing a further financial burden on the state? Would this not then increase the incidents of metal theft?

Many cases the South African Police Services (SAPS) catch perpetrators of metal theft and none of the items are marked. The unmarked pipe can belong to anyone and the normal defense would be, "I picked it up along the way". When ownership cannot be proven, a conviction is impossible.

### **Conclusion**

The future appears to be bleak. With the world economic outlook not looking well, things can only get worse if we only focus on the problem. The social conditions of the communities in question will not change overnight. Drug dependency will not disappear and the need for quick fixes will always be in front of us. However, if we start to rethink the way we attempt to resolve the problem, it cannot be "Business as Usual". The first thing we need to do is to look at a transversal approach in seeking solutions. Inter-agency cooperation should be our aim. When we unite our efforts and coordinate actions, Cities can make an impact in eradicating the problem. When this approach was started by the City of Cape Town, there was a drop in reported cases of missing manhole covers as can be seen in Graph 1.

As can be seen in Photo 1, alternate materials do not always hold solutions. Even galvanized iron became targets.

As a start, Municipalities need to find their own mix of intervention to suit their specific needs. However, the one element that needs to be emphasized is that there needs to be cooperation for the common goal.

### **The cooperative approach**

#### **Centralized Call Centers**

Cities are mandated in the Municipal Systems Act to have mechanisms whereby citizens can forward complaints to them. Key in understanding the problem is to be able to quantify the problem. Cities need to rely on its Citizens for information on the defects to infrastructure, but this reporting should not be a maze that must be attempted every time a complaint is to be lodged. Cities need to have Centralized Corporate call centers that are not necessarily geographically in the same place. The public must be able to walk into any municipal building and complain about the missing manhole or water meter. This Call Centre must capture and relay this complaint for swift action. This data needs to be properly indexed as to allow for analysis and trends. These trends become the intelligence for the Law Enforcement units as the data can be spatially represented and appropriate action plans can be formulated. It is important to note that once a trend is picked up from these complaints, law enforcement units needs to be alerted immediately. These reports can serve as substance for obtaining search warrants to allow for scrap yard inspections.

#### **Appropriate Markings**

In many cases, perpetrators of metal theft are allowed to appoint a Legal Aid attorney to represent themselves in court proceedings. And once too often did I see the attorney plead that their client was not aware that the item in question belonged to the City. Marking of items are crucial and especially larger items. Handrails and other metals can very easily be marked utilizing the latest technology in "Data Dotting" (trade mark) which marks the item with fine micro dots.

In the City of Cape Town, it was a standard that all manhole covers and frames be marked with "CITY OF CAPE TOWN SEWER". This practice has waned over the years, but is now being written in the new 2010 standard for Manhole Covers and Frames. This marking makes it a lot easier for identification during raids on Scrap yards and can lead to better prosecution, which serves as an effective deterrent.

### **Appropriate authority for Staff to act on behalf of the Municipality**

In the event of a perpetrator being caught, staff needs to be authorized to make affidavits identifying the property as that of the relevant municipality. In some cases, the system of delegations can be a hindrance in the time lines of the investigation.

### **The assistance for staff in Court Proceedings**

Once cases are placed on the court role, staff feels intimidated to be the witness in identifying the property of the municipality and assistance from the enforcement units are greatly appreciated. Most of these cases are heard in courts within the community where the crime has taken place. This can be intimidating to staff that needs to testify in the case.

### **Planning and land use applications**

Land use and planning departments of municipalities can play a bigger role, and that is to allow for the scrutiny of the land use. They can insist that the applicant be registered with the relevant trade organization, like the MRA and they need to ensure that the applicant complies with the relevant sections of the Second Hand Goods Act.

### **Social and economic Issues**

In addressing the social issue of unemployment, The City of Cape Town has created approximately 38 000 job opportunities for deprived areas through the Expanded Public works program (EPWP).

Another element to the process was that the City of Cape Town reviewed the standards for Manhole Covers and frames. The key issues that were looked at were:

1. The weight of the covers was increased to 80 kilograms and this weight could be made up with concrete or similar material that will yield the same mass. See the sample in Photo 4 and 5.
2. The name of the municipality was clearly cast into the cover and frame and this helps with the identification of the goods, even when it is broken up.
3. The material for the casting was ductile iron which has a higher resistance to impact loading. This is very useful when these covers are being broken up into pieces.
4. The covers also had to conform to a 400Kilo Newton (KN) test instead of the old 130 KN.

The polymer concrete was seen as specific solutions and not as the proverbial silver bullet. In many cases polymers were not suitable as this is utilized as fuel for burning off of electrical cable.

### **Media campaigns**

The City of Cape Town embarked on a media campaign graphically displaying what the opportunity cost was for the loss or abuse of infrastructure. In figure 2, the message is that excessive dumping can cost you as resident the equivalent of a library. Similar ones were displayed for manhole covers.

During community meetings, staff partnered with Wastewise and other Non Profit Organisations in explaining the environmental impact of open manholes.

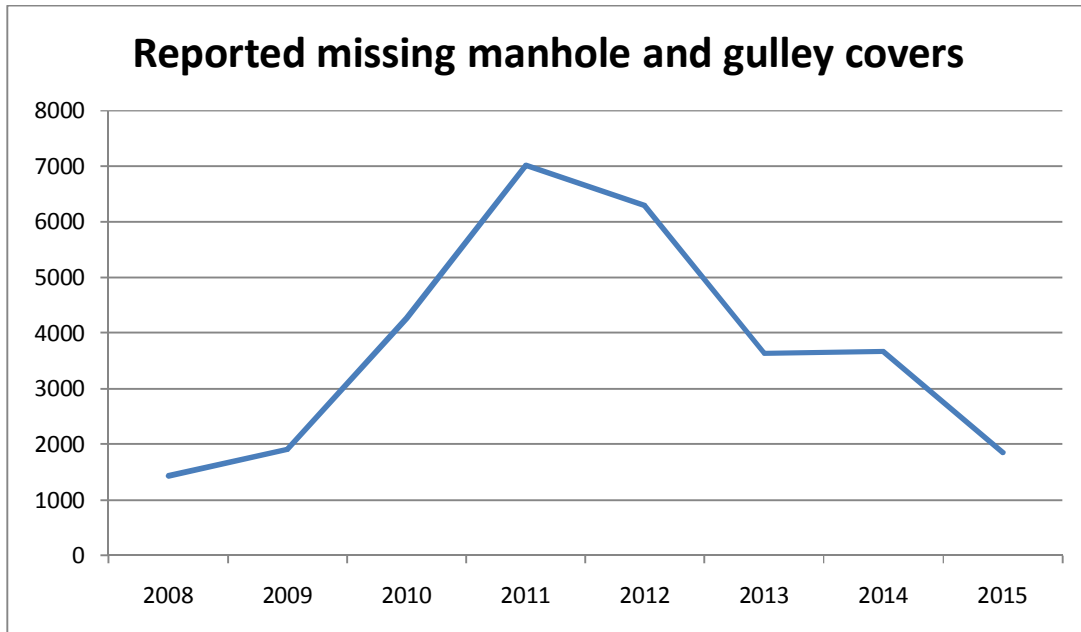
### **The Evolving city**

Though this was never attempted by the City of Cape Town, it comes highly recommended that municipalities urge the National Prosecuting Authority to ask the courts for offenders be sentenced to community service where they will then clean and repair (elementary) infrastructure that they damage.

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**Annexures, Figures and Figures**



**Graph 1: Reported Missing manhole covers and gully grids**



**Photo 1: All metal has become targets of metal thieves even with the switch to galvanized iron**



**Photo 2: The collection of scrap metal has become a common sight in the urban environment, even active rail reserves.**



**Figure 1. Departmental cooperation that is needed to deal with a common problem.**





## DUMPING ILLEGALLY WASTES RESOURCES THAT COULD BE USED ELSEWHERE.

Use Facebook to confidentially report illegal dumpers.

**Figure 2: Media campaigns that show the opportunity cost to communities are very useful.**



**Photo 3: New Manhole Covers and Frames clearly marked during the casting process**



**Photo 4: Different methods of casting allowing for covers to be filled with concrete to lessen the scrap value.**



**Photo 5: Same standard, Different supplier**