

INTEGRATED GRAFFITI MANAGEMENT FOR PUBLIC ASSET MANAGERS

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Abstract

Graffiti in our communities has been a long running and constant challenge for those responsible for the maintenance of public assets. In fact it is more than a nuisance, as nothing destroys the public amenity of an area more quickly than the overnight application of graffiti, and it is often the precursor of more destructive vandalism.

This paper addresses the challenges and benefits of an integrated graffiti management process for those responsible for the management of public spaces, buildings and structures. It highlights the tangible and intangible benefits of effective graffiti management.

Drawing on practical experiences and techniques developed over the last, decade and implemented extensively within the City of Sydney and the Australian Capital Territory Government, the practical and effective integration of advanced technology and on-the-ground resources to provide systematic and cost effective graffiti management strategies.

This practical approach focuses on

- Inspection and recording
- Rapid removal and emergency response
- Graffiti mapping and “Tag” identification
- Use of anti graffiti treatments
- Graffiti deterrent strategies
- Advanced IT platform and Mobile technology which can record & map graffiti history and its clean up and is capable of being leveraged for other routine maintenance tasks managed by council
- The use of third party service providers and ensuring contractor accountability.

Key Words: Graffiti; Management System; Integrated management; mapping; technology

Introduction

Graffiti can be viewed from two perspectives, namely.

- as a legitimate art form where legitimate graffiti artists create works in designated places and;
- as an act of vandalism where tags; throw-ups; bombing etc is conducted indiscriminately

Graffiti vandalism is the scourge of modern society. We have all seen it, been offended by it, marvelled at the creativity of its perpetrators but in the end it is in the wrong place, and destroys the public amenity of our cities and towns.

Graffiti can take many forms:-

- Petty vandalism where tags are marked in various locations

- Extensive works where large areas are created as works of art
- Offensive graffiti highlighting racist comments
- Political graffiti designed to draw public attention to a protest or cause.

It does not discriminate where it appears. It is prevalent in public spaces and in industrial areas; public and private property; hidden places; parks & sportsgrounds; monuments; roads and bridges; railway thoroughfares to some of our national architectural icons such as the Sydney Opera House.

Graffiti is not just about the defacing of our public and private assets, rather it also embodies the process of marking out a territory. This territory is less desirable to the greater public and as a result the general population feel less safe. It also acts to attract other people with a graffiti culture, and in turn, the escalation from “minor” graffiti vandalism to more serious crime, with the resultant negative impact on public safety. It is a downward spiral of continuous and increasingly severe degradation of the public amenity of an area and alienation of the general community.

As a result effective graffiti management processes are a way of both preventing this degradation of the public amenity and recovering and rehabilitating public assets

Statistics

In 2002 Harry Woods, the then Minister for Local Government estimated the cost of Graffiti to the communities of NSW was in excess of \$100m pa (1)...this was only the public purse cost and many tens of millions more could be added from the private sector.

Accurate determination of the costs of graffiti removal and prevention are difficult to source as they may be grouped up into general cleaning and maintenance sectors and may or may not include both cleaning and preventative expenditure. However, the

following gives you some idea of the scope of the expenditure

- In 2006 City of Sydney council reportedly spent around \$3.0 million per year in cleaning up graffiti vandalism. (2)
- In 2009 Gold Coast City Council reported its graffiti expenditure to being \$1.7 million and rapidly approaching \$2.0 million pa (3) (4)
- A recent report in the Inner West Courier reported expenditure of 6 inner city councils being in excess of \$800k (5) made up as follows:
 - Ashfield \$240k
 - Marrickville \$155k
 - Burwood \$150k
 - Canada Bay \$120k
 - Strathfield \$116k
 - Leichardt \$30k
- Port Macquarie Council which has a very different demographic to Sydney reports expenditure on graffiti increasing to almost \$300k

The incidence of graffiti attacks, where recorded, indicates a disturbing trend of increasing frequency of graffiti. Gold coast city council anticipates in excess of 15000 incidents this year. This is an increase from 7600 in 2006/7 and 11000 in 2007/8.

City of Sydney Council in 2005/6 removed almost 250,000 incidents of graffiti vandalism.

Graffiti Management

There is a considerable body of research which indicates that the rapid removal of graffiti is a key element in discouraging graffiti attacks as it denies the graffiti perpetrator the recognition and peer notoriety that they are craving.

The rapid identification and removal forms a key part of the overall comprehensive graffiti management strategy.

It is widely acknowledged that a comprehensive Graffiti strategy has the following elements

- Identification of graffiti
- Rapid removal within 24 - 48 hours
- Tracking and identifying hot spots
- Employing graffiti discouragement tactics
- Canvass Modification through the use of colours; finishes; and soft landscaping
- Anti graffiti coatings
- Engineering and design to discourage graffiti
- Community engagement

This paper deals with the successful techniques used in the identification and removal of graffiti; the mapping of graffiti incidents and how the information can be used to identify graffiti hotspots and enable the targeted use of additional strategies to minimise the reoccurrence of graffiti incidents.

It highlights the measurable results of implementing a sustained and systematic approach to graffiti management and details the success in applying these techniques to specific situations.

Tangible benefits of better management of graffiti vandalism include

- Reduced frequency of graffiti vandalism incidents
- Minimal lead time to clean up any incidents
- Better decision making related to graffiti management tactics

Intangible benefits

- A Clean environment begets a clean environment (and on the other hand a graffiti attracts more graffiti)
- Better feel to community assets and their utilisation and enjoyment

- Less community out rage and alienation
- A safer community environment

Systematic Approach

Techni-Clean advocate a systematic approach to dealing with graffiti. This approach provides a most effective response to the graffiti challenge.

Daily inspection

Daily inspection regime is established to identify graffiti incidents.

The inspection includes the photographing of the incidents and location details and recording the type of graffiti. This information is used in later data analysis to identify graffiti tags and graffiti hotspots. The photographs are used to establish the severity of the incident and to enable clean up response to be coordinated.

The use of date stamped photography and before and after shots enables contractor performance to be monitored and provides accountability to the asset owners.

Deployment of Clean up teams

The cleanup team has the objective to remove graffiti within 24 to 48 hours therefore minimising the exposure.

The graffiti cleanup teams are deployed to complete tasks from previous day and to respond to new graffiti incidents according to their severity and priority. The priorities are

- Emergency: Immediate removal of offensive graffiti eg offensive words; racist comment; sexual content.
- 24 Hour removal of graffiti on public icons generally in prominent locations eg war memorials
- 48 Hour removal of general graffiti and tags

The work programmes and priorities are established and agreed with the accountable owner of the public asset

An emergency response capability is established to deal with particularly offensive and/or highly prominent graffiti incidents. The emergency response can be activated at any time.

Graffiti mapping and communications

The advent of advances mobile technologies and communications platforms has enabled sophisticated recording and mapping of graffiti to be achieved. Combined with efficient data classification and analysis public asset owners have much more real information from which to make decisions.

The latest technologies include comprehensive 'tag identification' and tracking; and 'Heat map Mash-up' where graffiti hotspots can be identified.

It is understood that graffiti vandals begin to form groups which lead to initially petty crime (such as theft & robbery). They then move to gang related crime, such as drugs and more serious types of crimes. In order to break this cycle these techniques would be able to highlight those trouble-spots (via a combination of Tag Identification & Heat maps) that could be addressed before the formation of gangs and serious crime may arise.

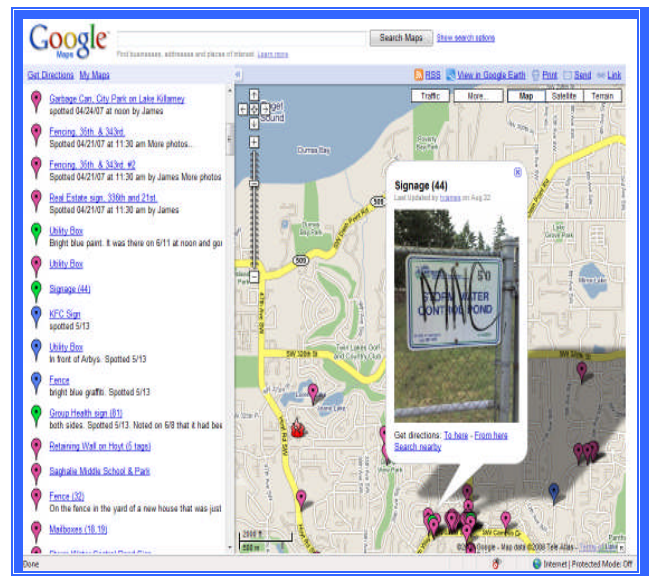
The advances in mapping technology and data storage enables a consolidated series of mapping mash-up system's overlaying captured data. This technology can then interact with external systems or locally installed software.

The individual tags can be identified and grouped to the 'tag owner' whether that is an identified piece of graffiti, bill posting or advertisement in a continuing area of concern.

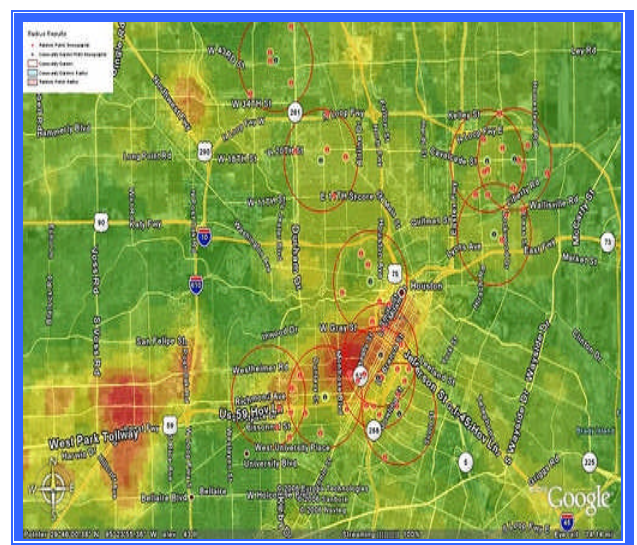
A data matching system that identifies and highlights individual pieces of graffiti and bill posting that is viewable on mouse-over, and allows the users to drill down further into the individual infringement. This system will provide evidence to the authorities to enable them to make convictions of perpetrators of graffiti.

The following screens show examples of what has been developed for cities around the world and are now being developed for use in Australia

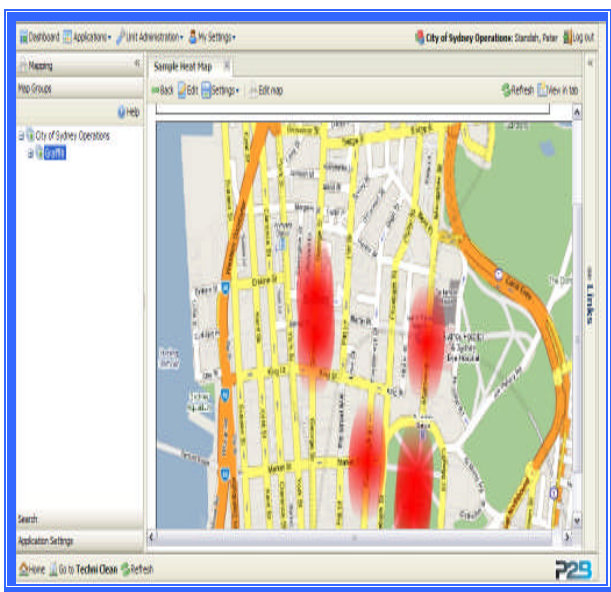
Tag Identification



Heat Maps



PDA's / mobile devices can be used in the field to capture information such as photos and GPS coordinates, which can be downloaded onto the system either in the field via wireless/broadband networks; or downloaded back in the office. An example below is use of GPS and photos captured in the field for graffiti locations (evidence) which are logged and shown on a map as "hot spots" (which is a powerful reporting function).



Graffiti Removal Techniques

Selection of the correct graffiti removal and remediation technique depends on the product used to create the graffiti and the substrate that it has been applied to.

Common graffiti types include oil and water based products, xylene based products, tars, oil, chalk, lipstick, deodorant, shoe polish, blood, sticky tape, glue, adhesive, crayon and waste products.

Graffiti removal agents and techniques include

- Water and solvent based chemical products
- Hot and Cold water
- High and low pressure applications

Generally a combination of these elements will be selected to achieve the best outcome. A summary of removal guidelines is provided in Appendix 1.

When selecting products and techniques it is important to consider the environmental and safety aspects. The use of environmentally friendly water based products is favoured above solvent based products which may harm the environment and require additional OH&S precautions.

Where the original surface is painted then painting out the graffiti may be a viable strategy. Many councils have established standard palettes of paint colours to enable efficient paint out of graffiti without creating an unsightly patchwork appearance.

Case Studies

In this segment we will draw on two examples where the systematic approach to graffiti management have made significant improvements

Case Study | Manly Council

Manly is located at the southern end of the Manly Warringah Peninsula of the Northern Beaches, immediately to the north west of the entrance to Sydney Harbour. Key features include:

- Over 20 beaches (including ocean and harbour beaches)
- 47 bushland reserves
- National Parks at North Head, Dobroyd and Bantry Bay
- Manly Ferry terminal

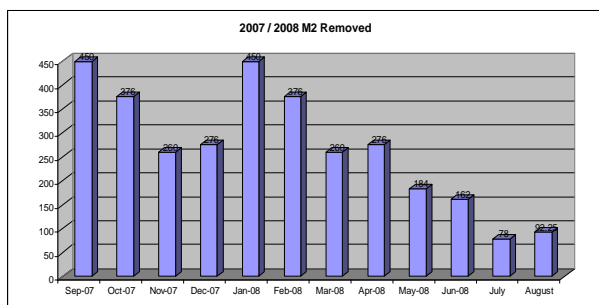
Manly Council's Graffiti problem

Manly Council had been combating a growing graffiti problem in the main tourist precincts in

and around the Corso. Techni-Clean explained how studies have shown that removing graffiti quickly (less than 48 hours) will eventually cause the vandals to give up and move elsewhere. Techni-Clean proposed a daily priority zone inspection regime of the main tourist area, supported by rapid cleanup of the graffiti. The strategy was implemented in September 2007.

Achievements

Through this daily inspection regime and rapid clean up, the incidents of graffiti have been reduced by more than 50% during the first 12 months of operation. Not only has the quantity and frequency of graffiti attack decreased, Manly Council's monthly cost of Graffiti cleanup for this area has halved. Manly Council has extended the program.



The above figures are for graffiti removed in the Manly Priority Zone.

Case Study | ACT Government - Territory and Municipal Services



Territory and Municipal Services (TAMS) was formed on 1 July 2006 when Urban Services, Environment ACT, Australian Capital Tourism, Sport and Recreation ACT, ACTION, Canberra Stadiums and parts of the Office of Sustainability merged into a single department to provide services that Canberra people use all the time.

Techni-Clean and TAMS Relationship

Techni-Clean has been the graffiti removal contractor to the ACT Government since 2003. Recently the contract was extended for an additional 4 years due to our joint success in significantly reducing graffiti incidents. One of the contractual conditions is the employment of disadvantaged persons by Techni-Clean to perform graffiti removals.

Achievements

During the first year, Techni-Clean implemented its proven graffiti strategy of establishing daily inspections followed by light graffiti incident removals and planning the heavy removals for the day following the inspections. This approach increases productivity of the work crews and results in less graffiti because of the quick cleanup response. As a result of implementing this strategy, the volume of graffiti was reduced by 36% in 2005 and in the 3 years from 2004 to 2007 the volume of graffiti has decreased by 56.5%.

In addition to the impact of the rapid removal strategy, there have been a number of community engagement initiatives, which complement the rapid removal strategy.

These include:

- **Legal Graffiti Sites** – Sites are identified by Techni-Clean and, once approved by TAMS are signposted and their locations published on their website along with guidelines for graffiti artists. Techni-Clean are responsible for inspecting the sites and removing offensive work
- **Graffiti Workshops** – those at risk of engaging in illegal graffiti are given the opportunity to develop art skills and to engage with the broader community in a positive way.
- **Community Art** – Groups of artists are paid to paint colourful murals and then maintain them.
- **Colour in Canberra** – prizes were given in a competition for turning traffic signal boxes into works of art.
- **Poster Poles** – these have been placed around the CBD.

Integration with other deterrent techniques

The regime of inspection cleanup and recording and mapping information now provides the public asset owner some real information to enable decisions on additional graffiti deterrent strategies to be implemented. The well targeted use of these strategies contributes to the overall improvement of graffiti problem.

These strategies include

- Canvass Modification, Colours; Finishes; use of soft landscaping
- Anti graffiti coatings
- Engineering and design to discourage graffiti
- Community engagement

Canvass Modification

There are a variety of techniques available to break up and change the surfaces available for graffiti. These techniques include soft landscaping to change the areas available and the changing the surfaces

This approach helps to eliminate the opportunity for large pieces to be done.

Anti graffiti Coatings

Anti graffiti coatings serve to reduce the impact of graffiti and enable easier cleanup

There are two types of anti graffiti coating which can be used.

Sacrificial, which is generally a water based coating. The advantages are ease of application while the disadvantage is that it is not permanent and needs to be replaced or recoated in the event that Graffiti needs to be cleaned from the surface.

Permanent, generally a solvent based coating which provides a long lasting finish and does not need recoating for several years

Selection of these coatings needs to take into account the substrate that is being treated. Careful selection is required as some coatings may change colour (yellowing) over time due to the prolonged exposure to sunlight and UV radiation.

Lighting

Increased lighting will often deter Graffiti vandals. With better information, from reporting and mapping, expenditure on lighting can be planned to get best community value.

Community Engagement

As highlighted in the ACT case study, good information about the location and nature of the graffiti problem can assist in focussing and driving community engagement activity. Community engagement is the process of the community taking ownership of and pride in their public spaces.

In many respects taking the approach that "graffiti vandalism is unacceptable and I can do something about it".

Some other effective community engagement activities are:

- Graffiti reporting Hotline
- Community meetings and education on graffiti vandalism and motivations
- Community removalist teams of volunteers for removal of small tags and posters
- Community Art projects

Use of third party contractors

While many local government authorities use internal labour and resources to deal with their graffiti problems the use of third party contractor provide many advantages for consideration.

- Improved productivity and quality of finished result.
- A wealth of practical experience and expertise in graffiti removal and management that can be applied

- Access to the latest technology in reporting and mapping as well as the removal techniques
- Reduced requirement for council supervision
- Performance measures and monitoring
- The contractor takes care of all environmental and OH&S issues

Accountability for performance is built into the reporting process with performance standards established and routine monthly reporting against those standards. The result is a partnership for overcoming the graffiti challenge

Conclusion

In conclusion we have seen the growing challenge that graffiti vandalism is creating for communities and their councils. Successful graffiti management requires the integration of many techniques to both remove and discourage re application of graffiti.

The development and implementation of a systematic and disciplined approach to dealing with graffiti on a day to day basis combined by adequate record keeping enables significant improvements overcoming Graffiti Vandalism.

References

- 1
http://www.graffiti.nsw.gov.au/lawlink/cpd/ll_graffiti.nsf/pages/graffiti_preventing_graffiti_vandalism
- 2
http://www.graffiti.nsw.gov.au/lawlink/cpd/ll_graffiti.nsf/pages/graffiti_index
- 3
http://www.goldcoast.com.au/article/2009/02/19/50851_gold-coast-top-story.html

4

http://www.goldcoast.qld.gov.au/t_news_item.aspx?pid=8153

5

Inner West Courier Tuesday February 10th 2009

6

<http://www.portnews.com.au/news/local/news/general/graffiti-costs-us-300000-every-year/1427802.aspx#>

Author Biography



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John Walkom and his brother Kevin are the founders of Techni-Clean Australia which was formed in 1996 to meet the increasing demand for cleaning and maintenance of hard surfaces, including graffiti management within the public arena.

Techni-Clean has secured high profile contractual positions with a number of public authorities in NSW and the ACT government.

Prior to founding Techni-Clean John owned concrete paving plants and related services businesses.

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