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California Graffiti Removal Programs:

Benchmarking San José's Graffiti Abatement Program against Best Practices in the Cities of Long Beach, San Diego, and Santa Ana

by

Samantha Silva Tavares

A Thesis Quality Research Project Submitted in Partial Fulfillment of the Requirements for the Masters Degree in

PUBLIC ADMINISTRATION

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I. INTRODUCTION

Graffiti removal costs may be a financial burden to a municipality, especially one located in California where public agencies face tax-draining constraints due to the impact of Proposition 13 on local revenue sources. A graffiti abatement program's expenditures include capital equipment costs, staff costs, costs associated with criminally prosecuting and civilly suing a graffiti writer, and societal costs (community impacts), which are not easily quantified.

Repairing the damage caused by graffiti is a financial burden on any locality, but failure to abate the nuisance that graffiti represents can lead to property devaluation and community blight. The purpose of this research is to use performance data from three benchmark cities and to determine what practices may be best suited for the City of San José's Anti-Graffiti Program, and to evaluate whether the recommendations given by the City Auditor's Office for enhancing the graffiti abatement program follow best practices of other cities in California.

The City of San José's City Auditor's Office completed a comprehensive audit of the City's Anti-Graffiti Program in June 2013. After their analysis, the Auditor's Office concluded by recommending 20 enhancements to improve the program. This research will analyze whether four of the recommendations are essential for the success of San José's graffiti abatement program, based on widely accepted best practices of graffiti removal. The paper will specifically analyze the City of Long Beach, the City of Santa Ana, and the City of San Diego in California.

It is important to understand the recent history of San José's graffiti battle, and how the current structure of their Anti-Graffiti Program evolved. During the mid-1980s, San José communities began experiencing increases in drug-use, gang violence, and other criminal activity (Action Collaboration Transformation: Mayor's Gang Prevention Task Force Strategic Work Plan Update, 2011). Mayor Susan Hammer launched Project Crackdown in response to

community members voicing their concerns to the Mayor and City Council. San José's Parks, Recreation, and Neighborhood Services Department (PRNS), Police Department, and Code Enforcement division worked together to improve the safety of San José neighborhoods. During this time, offenders were referred to (PRNS) for community service, which entailed litter pick-up and graffiti removal. In 1991, collaboration and coordination efforts were expanded to include schools, community groups, law enforcement agencies, and the Santa Clara County Probation Department, which led Mayor Hammer to create the Mayor's Gang Prevention Task Force (MGPTF). MGPTF responded to the "root causes of violence and anti-social behavior" (Action Collaboration Transformation: Mayor's Gang Prevention Task Force Strategic Work Plan Update, 2011, p.13). The MGPTF structure includes a Policy Team, which monitors emerging trends and facilitates collaboration, and a Technical Team, which executes policy direction set out by the Policy Team and provides services to youth and families.

San José's Bringing Everyone's Strengths Together (B.E.S.T.) program was created in 1992 to allocate funding specifically for services in prevention, intervention, and law enforcement (Action Collaboration Transformation: Mayor's Gang Prevention Task Force Strategic Work Plan Update, 2011). The grant program played a critical role in funding programs impacting youth to reduce gang activity, violence, and criminal activity. Today, the program allocates funds to reflect the City's changing needs. In 2010, B.E.S.T. lost its entire \$4.7 million budget but fortunately stayed afloat due to Mayor Chuck Reed's provision of \$2.8 million from the City's general fund to keep B.E.S.T. running (B.E.S.T. Evaluation Report and Summary of Mayor's Gang Prevention Task Force, 2011).

Mayor Ron Gonzales in 1999 began San José's extensive graffiti abatement program.

Mayor Gonzales is accredited with reducing graffiti by 94percent over an eight-year period in the

City. The program relied on community volunteers. Recruitments and trainings were held in San José and by 2001, Mayor Gonzales announced the City had over 1,000 volunteers who helped to paint over graffiti or otherwise remove graffiti from the community. That same year, San José conducted its first citywide survey to measure the activity and progress of the MGPTF ((Action Collaboration Transformation: Mayor's Gang Prevention Task Force Strategic Work Plan Update, 2011).

Despite significant budget challenges in 2006 to 2011, Mayor Chuck Reed and the City Council continued to support MGPTF and the B.E.S.T Program because of the positive public value both programs had on communities. PRNS addressed the need for more social programs to stop the trend of anti-social behavior in San José, and the Anti-Graffiti Program was expanded to help beautify the City through prevention and removal of graffiti. Wilson and Kelling have noted that visual blight generally leads to additional neighborhood deterioration and crime, as discussed in their *The Atlantic* article on "Broken Windows." (1982). Reducing graffiti and other minor infractions tends to reduce overall crime. (Wilson & Kelling, 1984; Gladwell, 2002). From 2000 to 2007, San José experienced a steady decline of the number of tags reported and removed in neighborhoods. In 2008, the trend reversed and the number of tags increased.

MGPTF in 2011 produced a Strategic Plan Update. One objective from "Part of Strategic Goal 1- Service Delivery" is for the force to "continue and monitor strategies to reduce and remove graffiti throughout the City" (p. 24). An outcome of this objective is for all gang-related graffiti to be removed within 24 hours of being reported. One objective from "Part of Strategic Goal 2-Education and Public Awareness" is for the force to "deploy information regarding crime reporting options, restor[e] property damage (i.e., graffiti), and foster healthy neighborhoods throughout the City of San José" (p. 28). It is evident that graffiti removal is a component of

MGPTF's path to achieve their mission: ensuring safe and healthy opportunities for San José's youth (Action Collaboration Transformation: Mayor's Gang Prevention Task Force Strategic Work Plan Update, 2011).

The District Attorney works closely with the Anti-Graffiti program through mandatory sentencing of graffiti vandals. Penalties are based on the amount of damage an individual caused. The California Penal Code states that if the cost of damage is four hundred dollars (\$400) or more, prosecutors have the option of charging an individual with a misdemeanor or felony.

Prior to 2011, the service model of the Anti-Graffiti Program prioritized tag removal on a case-by-case basis and evaluated each case by size of the reported tag and the availability of equipment (Graffiti Eradication Services Business Case Analysis, 2011). The program's objective is to ensure timely eradiation of graffiti in coordination with enforcement activities that address the monitoring and overall prevention of gang-related activity. PRNS used in-house staff to facilitate community involvement and coordinate enforcement with the Police Department and the Code Enforcement division (Graffiti Eradication Services Business Case Analysis, 2011). In 2010, the City employed 21.13 full-time employees in the Anti-Graffiti Program, but in 2011 reduced the number to 17.13 full-time employees, because of budget restrictions. A 24-hour Hotline was available for community members to report graffiti in the City. The Anti-Graffiti Program is a partner with Valley Transportation Authority (VTA), Santa Clara County, Caltrans, Santa Clara Valley Water District, Union Pacific Railroad, and the San José Downtown Association.

In FY 2010-2011, the City of San José spent \$553,564 on graffiti abatement. This included labor, material costs, and City overhead costs. San José experienced a thirty-eight percent increase in graffiti tags from the previous year. There were 16,755 incidents of graffiti

and it cost an average of \$33.04 per incident to remove (SJ City Auditor Report, 2013). Some funds were recovered using the approved restitution rate. These high costs associated with the program, along with changes in staff and other resources, ultimately lead to San José hiring an outside contractor, Graffiti Protective Coatings (GPC) in June 2011, to provide the graffiti removal services.

In the spring of 2013 a large graffiti – RIP Tommy – was scrawled across the Union Pacific trestle over I-280 near downtown San José. Just the most glaring in a string of vandalism, the graffiti spurred the California Highway Patrol to develop a graffiti abatement patrol to try to cut down the vandalism and related costs to public agency owners of the infrastructure. The County District Attorney has agreed to seek the maximum penalties for the taggers.

II. LITERATURE REVIEW

By the 1970s, graffiti writers began gaining fame in the United States, especially in New York with the emergence of the famous graffiti artist, Taki 183 (Dickinson, 2008). Official legislation on graffiti materialized during this time, but it was very difficult to convict graffiti writers to stop the vandalism. Dickinson (2008) notes that in early 1973, only about 30 percent of arrested graffiti writers were convicted in New York. Presently, city ordinances categorize graffiti writers as vandals and city officials continue to push for tougher punishments. Graffiti has evolved in the last forty years, and there is a contemporary perspective among some elements in society that views graffiti as a form of artistic expression. Early graffiti writers viewed their work as a means of communication. This is especially true in the United States, as gangs have been known to use graffiti to communicate among themselves (Koon-Hwee Kan, 2001; Hasley & Young, 2008; Taylor, 2012; Ten Eyck & Fischer, 2012).

Throughout history, the meaning and techniques of graffiti have evolved. Information provided by the US Department of Justice, the Office of Community Oriented Policing Services (Weisel, 2004), describes the types of graffiti, their features, and the motives behind them. Table 1 summarizes how graffiti is defined for the purpose of this research.

Table 1: Graffiti Terms

Types of Graffiti	Features	Motives
Gang	 Gang name or symbol, including hand signs Gang member name(s) or nickname(s), or sometimes a roll-call listing of members Numbers Distinctive, stylized alphabet Key visible locations Enemy names and symbols, or allies' names 	Mark turf: Threaten violence; Boast if achievements; Honor the slain; Insult/taunt other gangs
Common Tagger	 High-volume, accessible locations High-visibility, hard-to-read locations May be styled but simple name or nickname tag or symbols Tenacious (keep retagging) 	Notoriety or prestige; Defiance of authority
Artistic Tagger	 Colorful and complex pictures 	Artistic; Prestige or recognition
Conventional Graffiti	 Sporadic, isolated, or systematic incidents 	Play; Rite of passage; Excitement; Impulsive
Conventional Graffiti: Spontaneous	 Sporadic, isolated, or systematic incidents 	Anger; Boredom; Resentment; Failure; Despair
Ideological	 Offensive content or symbols Racial, ethnic, or religious slurs Specific targets, such as synagogues Highly legible Slogan 	Anger; Hate; Political; Hostility; Defiance

Source: Weisel, 2004

Weisel (2004) generalizes graffiti as the "wide range of markings, etchings and paintings that deface public or private property" (p. 1). Although the essence of graffiti may be subjective,

it is still largely illegal in the United States, and municipal sociological theories are similar across the nation: graffiti's initial appearance in neighborhoods tends to attract more graffiti and leads to the perception of blight. Section 594 of the California Penal Code (Vandalism and Malicious Mischief) is the most common code that law enforcement officials and prosecutors use against graffiti offenders. Graffiti stakeholders have a difficult time defining the proper meaning, use, and appearance of urban space; it is seen as owned in the form of property and territory (Docuyanan, 2000). The appearance of graffiti tends to be perceived by residents as a sign of urban decay and can lead to revenue loss for cities, such as reduced ridership on public transportation, reduced retail sales, and declines in property value (Weisel, 2004). It is also a public safety issue for municipalities, as residents may feel that graffiti is a sign that other serious crime occurs in the area and residents may be inclined to avoid said areas. (Wilson & Kelling, 1082; Gladwell, 2002)

City Implications

Graffiti defaces public and private property, and is found in a variety of jurisdictions. Although largely associated with gangs, research has proven graffiti offenders come in all shapes and sizes. Graffiti continues to be a problem for many local government agencies due to the high costs associated with cleanup and prevention. In the U.S., an estimated \$12 billion has been spent on cleanup alone (Silver, 2013). Public entities and taxpayers sustain the costs for cleaning public spaces, and residents and businesses pay to remove graffiti from private property.

Residents endure other issues from graffiti, such as feeling intimidated when entering graffiti-ridden areas or using public transportation covered in graffiti (Skogan, 2008; Silver, 2013).

Graffiti consumes the limited resources of cities. Hasley and Young (2008) note that graffiti may be associated with low-income areas because local agencies have fewer funds to remove the

graffiti quickly, not because persons from a low-income segment of the population "carry out quantitatively more graffiti" (p. 7).

There has been increased acceptance of graffiti in popular culture and, simultaneously, cities have been imposing harsher penalties on crime and vandalism associated with graffiti (Hasley & Young, 2006; McAuliffe, 2012; Silver, 2013, Gee, 2013). Legislation has been passed in multiple states that targets potential vandalism at the point of purchase, such as regulating the sale of spray paint to persons twenty-one and older (Gee, 2013).

The Broken Windows Theory and Social Disorder

In the early 1980s, two social scientists, James Q. Wilson and George Kelling, promoted the view that graffiti is a criminal activity (1982). Wilson and Kelling argue that individuals are more likely to commit crimes in neighborhoods that appear to be forgotten in their community. There is link between order-maintenance crime-prevention, that "...serious street crime flourishes in areas in which disorderly behavior goes unchecked" (Wilson & Kelling, 1982, p. 5). Wilson and Kelling (1982) claim that the signs of physical decay on property, such as broken windows and graffiti, lead to social disorder as people interpret these neighborhood appearances to mean that the community is indifferent to such decay. To avoid social disorder, William and Kelling (1982) advise cities to "identify neighborhoods at the tipping point—where the public order is deteriorating but not unreclaimable, where the streets are used frequently but by apprehensive people, where a window is likely to be broken at any time, and must quickly be fixed it all are not to be shattered" (p. 10).

Furthermore, Malcolm Gladwell (2002), in his book, <u>The Tipping Point: How Little</u>

<u>Things Can Make a Big Difference</u>, introduces a concept that describes epidemics to be

"sensitive to the conditions and circumstances of the times and places in which they occur" (p.

139). Gladwell (2002) refers to this concept as the "Power of Context," which describes "behavior [as] a function of social context" (p. 140), and he insists that graffiti removal played a role in reversing New York's crime epidemic in the 1990s. During the 1980s, graffiti, public disorder, and panhandling were invitations to more serious crimes. At this time, David Gunn, president of the New York Transit Authority, used the Broken Windows Theory and focused on minor offenses as he was driven to battle graffiti and become victorious. New methods of removing graffiti were implemented. Gunn made certain that no graffiti-ridden train would be mixed with new trains; a cleaning station was set up so that if a subway car became covered in graffiti and the train would not be put back into service until the graffiti was removed. Gladwell (2002) asserts that both the Power of Context and the Broken Windows Theory argue, "the criminal...is actually someone acutely sensitive to his environment, who is alert to all kinds of cues, and who is prompted to commit crimes based on his perception of the world around him" (p. 150).

Wesley G. Skogan (2008), a professor at Northwestern University, states social disorder "undermines the capacity of neighborhoods to defend themselves" and that "criminogenic effects of disorder stem from the attendant decline of informal social control" (p. 196). Although many anti-graffiti city codes and ordinances are developed from this theory, recent studies have argued that the perceptions of neighborhoods stem from their racial make-up. And yet, researchers and residents would all agree: graffiti invites crime regardless of the location (Skogan, 2008; Gee, 2013; Silver, 2013).

Art versus Vandalism

Erik Wahl is internationally recognized as a thought-provoking graffiti artist. In his recent book, <u>Unthink: Rediscover Your Creative Genius</u>, Wahl (2013) claims that in the last

century, graffiti has been "hijacked by vandals and tagged with the perception of [property] destruction" (p151).

Contemporary graffiti can be categorized in a variety of ways. It is important to separately categorize "graffiti" and "vandalism", as the two terms tend to be discussed in the same context. It is widely accepted that graffiti involves damage to public and private property, which leads to how a community is perceived (Koon-Hwee Kan, 2001;Hasley & Young, 2002, Skogan, 2008). Hasley and Young (2008) argue that academic research does not demonstrate that individuals who engage in graffiti also engage in other types of vandalism. Also, it cannot be said that people committing acts of vandalism are always engaged in graffiti. As shown in Table 1, there are different dimensions of graffiti that include a variety of motivations for an individual to produce graffiti. Graffiti is subjective to the public; it can be perceived as art or vandalism.

There is a blurry line between graffiti as an art and graffiti as property damage. Urban areas have been attempting to decrease the problem of graffiti by using creative concepts to drive urban change and regeneration (Koon-Hwee Kan, 2001; McAuliffe, 2012). There has been development of legal graffiti programs to promote an avenue for graffiti writers, such as mural art programs. Craw and her colleagues' (2006) research study determined that murals indeed help to discourage graffiti from occurring. A cost-benefit analysis performed proved property owners had a lower-cost of removing graffiti from a wall if a mural existed. However, Taylor and Marais (2009) from the University of Western Australia conclude that murals do not solve the graffiti proliferation problem. They find that if the artwork has a relationship to the viewers and the graffiti artist in the neighborhood, it may have long-term benefits for society by lowering the probability that graffiti would occur in the area. As Taylor and Marais (2009) claim, this type of mural would "enhance, rather than detract, from property values" (p. 68).

According to Hasley and Young (2006), aesthetics is an important factor in determining the thresholds dividing art from vandalism. How their artwork is perceived in a certain environment is important to graffiti artists, and has little to do with the status they may receive for partaking in an illegal activity (Koon-Hwee Kan, 2001; Khan, 2001). From various interviews with graffiti writers, Hasley and Young (2006) concluded that it is rare for graffiti writers to mention any thrill accompanying the breaking of the law. Graffiti writers see their actions "governed by stringent ethical limits" (Hasley & Young, 2006, p. 297).

A current example of the division of whether graffiti artist are producing artwork or engaging in a criminal activity is a battle the City of Oakland, California is enduring. The City is grappling with a graffiti epidemic, and property owners are unfortunately on the losing side. In 2012-2013 the City spent \$1 million on graffiti abatement (Artz, 2013). Property owners do not want tagging or murals on their establishments. Many individuals are frustrated over the fiscal impact of graffiti abatement programs on the ability to provide other services. Renowned city graffiti artists, such as Ernest Doty, are charging storeowners a fee to paint a mural on their property to discourage future tagging. City graffiti removers have reported that there is mixed data on whether the murals deter graffiti (Koon-Hwee Kan, 2001; Artz, 2013). The City of Oakland cannot clearly define whether graffiti is seen as a piece of art or vandalism. The City Council passed a law that criminalizes tagging but also set aside \$400,000 for mural projects (Artz, 2013).

The Person Behind the Spray Can

Nathan Glazer (1979), an American sociologist, has claimed that graffiti appears to an individual on the subway as "inescapable knowledge that the environment he must endure for an hour or more a day is uncontrolled and uncontrollable, and that anyone can invade it to do

whatever damage and mischief the mind suggests"(p. 4). This idea insinuates that it is an innate feeling graffiti writers have to create graffiti. Hasley and Young (2006) found graffiti writers continued their work because of a sense of "pride, pleasure, the enjoyment derived from sharing of an activity with friends, as well as the recognition obtained from the writing community" (p. 279).

Society has categorized graffiti offenders as deviants, youth, offenders, troublemakers, and artists. Most creators in the United States have been estimated to be between the ages of 12 to 30, the majority younger than 18 years old (Khan, 2001). Hasley and Young (2002) note that policies against graffiti writers are stereotyped and do not accommodate the complexity of the culture. Surveying public discourse on graffiti, Hasley and Young found the same idea throughout media reports, policy documents, academic writing, and public opinion: graffiti is the work of teenaged boys, is the result of boredom, is associated with lower-income areas, and is associated with other criminal activity. However, when graffiti culture is explored closely, the stereotypes listed above are unsubstantiated. The motivations of graffiti, as shown in Table 1, vary, as do the individuals who carry out the writing. As noted above, graffiti may be associated with low-income areas because local agencies have fewer funds to remove the graffiti quickly-not because persons from a low-income are "carry out quantitatively more graffiti" (Hasley & Young, 2002, p. 7).

Contemporary graffiti has been showcased in multiple museums and art shows. Although it may be true that certain graffiti artists have made a career out of their work, Dickinson (2008) notes that a large majority of practitioners are still seen as illegitimate. In addition, he claims that areas, in which graffiti has been routinely placed, are disappearing because of heavy policing and privatization. Ducuyanan (2000) claims that graffiti writers engage in such activities to fulfill

their own "personal desires, needs, and motivations" (p. 105). On the West Coast during the 1970s and 1980, a phenomenon of hip-hop graffiti emerged. Distinct from other types of graffiti, Lombard (2013) contends that hip-hop graffiti writers see themselves as "urban artists" as they create tags, throw-ups, and pieces. As "cultural producers" (Dickinson, 2008, p. 39), graffiti artists desire an enclosure to present their work and since this area is a shared, public place, it is seen as intolerable by public and private agencies.

Myra Frances Taylor (2012) describes the social-psychological problem that leads adolescents to become involved in graffiti writing: they are addicted to risk, recognition, and respect that the graffiti lifestyle provides. Taylor (2012) asserts in her findings that current research is shifting away from the causes of addiction to a greater understanding of the factors that underpin addictive behaviors. She concludes her study by claiming, "treatment programs can be proposed that effectively rehabilitate rather than simply punish recidivist graffiti offenders" (p. 66). Other researchers, such as Ten Eyck and Fischer (2012), also argue that creating graffiti includes risks such as arrest, gang activity, and stealing supplies. Their research finds that graffiti writers are also communicating risk through their work by using walls as an area to express their feelings.

Graffiti Management

California state and local governments continue to feel the effects of Proposition 13. In 1978 California voters agreed to limit the property tax rate to one percent of the initial purchase price of a property, roll back property values and limit growth in assessed value, which meant local governments were limited in raising local property tax rates or assessed property values to raise additional revenues (Hoene, 2004). This loss of capacity, as well as control over the property tax, hurts municipalities' ability to provide services demanded by their residents.

Without the ability to increase the revenue capacity generated by property tax, cities are "less able to tie revenue decision to local needs" (Hoene, 2004, p. 70) and residents are "less likely to understand how their tax revenues pay for local services and benefits to them" (Hoene, 2004, p. 70). Graffiti removal programs have been downsized in a majority of California local government agencies as a result of shrinking revenue sources.

Municipalities have engaged in contemporary graffiti management programs. McAuliffe (2012) points to three primary practices of graffiti management: enforcement, removal, and engagement. The first two involve coordination with law enforcement officers, reporting and recording mechanisms, as well as efforts to physically remove graffiti from property. The latter involves engagement with graffiti writers to limit their involvement in such acts of perceived vandalism (Barnard, 2006; McAuliffe, 2012).

In San José, California, the "graffiti war" is improving in city neighborhoods but they have encountered a typical problem in urban areas. As a 2013 San José Mercury News article lamented, "[a]s San José officials report progress scrubbing graffiti from city neighborhoods, taggers have taken to freeways and rail trestles where their spray-painted scrawlings are more visible and harder to clean, leading many to feel the vandals are winning" (Woolfolk, 2013). In California, Caltrans is responsible for graffiti removal on the freeways. Cities are left helpless as graffiti encompasses their communities on freeways and privately owned rail road tracks, jurisdictions where the city has no legal right to demand the removal of graffiti.

Using the City of Sydney as a case study, McAuliffe (2012) points to an ambiguity in the City's graffiti management program. Although graffiti is illegal, it became city policy to not remove certain graffiti art from public places because of their perception as public art. This has

lead to barriers for the City to implement successful incorporation of an effective graffiti management program.

Best Practices

Research shows it is important for cities to confront the criminal behavior of graffiti writers by creating a comprehensive city ordinance based on state law. Matthew Silver (2013), a lawyer in Irvine, California, believes an effective city ordinance should include the following:

- Graffiti writers and guardians be held equally responsible for the costs and expenses of graffiti abatement
- Define graffiti broadly and include a standard for determining liability for graffiti violation
- Other enforcement remedies, such as the ability to recover civil penalties of up to \$1,000 for each incident
- Cost associated with property cleanup paid by the graffiti writer or guardian through a lien or special assessment
- Establish an effective enforcement system for the ordinance among the city departments Silver (2013) assures that after cities have implemented such an ordinance, they may see that it "reduce(d) the economic and societal costs of graffiti in the community, while providing an effective deterrent for taggers and impetus for their...guardians" (p. 19).

The Graffiti Consultants, a consulting company focused on the development and implementation of highly successful graffiti reducing strategies, has helped a variety of U.S. cities combat in graffiti through removal. For a municipality to be successful, the company prescribes 10 steps that should be implemented:

- 1. City-Wide Anti-Graffiti Survey
- 2. Volunteers and Free Supplies
- 3. What Not to Do (avoid group paint outs, newsletters, community conferences, mass postal mail outs)
- 4. Juvenile Justice System that Treats Graffiti Violations Seriously
- 5. Police Officers Dedicated to Graffiti Cases
- 6. Graffiti Hotline and Proactive Graffiti Abatement

- 7. Strong Anti-Graffiti Ordinance
- 8. Alternatives to Graffiti
- 9. Grab Bag of General Graffiti Related Information
- 10. Cooperation with Other Agencies

Graffiti Hurts- Care for Your Community is a grassroots community education program developed in 1996 through a grant from The Sherman-Williams Company. The purpose of the program is to raise awareness about the negative effects of graffiti and this is done through education and prevention activities. Their recommendations for graffiti removal are in line with best practices from scholars: it should be done in 24 hours, use the same paint color when painting over a surface to avoid the patchwork effect, and protect the surface from further graffiti with protective coatings (Graffiti Hurts, 2013).

III. METHODOLOGY

As California continues to climb out of recession, public expenditures are continuously analyzed to ensure that funds are being used efficiently and effectively. Graffiti removal programs, whether staffed by city-paid workers or by community volunteers, are important to cities. In 2007, graffiti removal costs in Los Angeles County were nearly \$30 million; this does not include the societal costs, which are the hardest to quantify. The first part of this research used elements of the Literature Review above to create a list of best practices in graffiti removal. The second part analyzed graffiti removal programs in three similarly situated cities in California: the City of Long Beach, the City of Santa Ana, and the City of San Diego, and then compared them to the City Auditor's suggested enhancements of the City of San José's program.

This research benchmarked the City of San José's Anti-Graffiti program against the cities of Long Beach, Santa Ana, and San Diego. The purpose is to identify and measure differences in

organizational practices for the purpose of undertaking relevant comparisons between groups. The actual functions performed by the three cities were gathered. These functions were compared with the four recommendations from the City of San José's Auditor's Office to determine whether these recommendations are essential for the success of a city's graffiti abatement program.

Although all four local government agencies are experiencing different budget limitations or local issues, each jurisdiction functions under Section 594 of the California Penal Code and shares similar socioeconomic and demographics factors. In examining each graffiti abatement program, it is crucial to understand the political and economic conditions of each city and how each city was coping under budget limitations in California. This required research drawn from newspaper articles, staff reports, budget documents, and other city-related documents. These documents are available on each agency's website. Interviews were conducted with city staff to obtain further information about each organization's program, as well. Only eight questions in length, the interviews provided another perspective on the programs and created a better understanding of staff's varying roles in their respective graffiti removal programs.

The fundamental part of the analysis is to determine whether the San José's City

Auditor's recommendations, seen as best practices standards, are imperative for a successful graffiti removal program. Academic articles and information provided by graffiti removal experts on best practices were used to create criteria to determine which recommendations from San José's audit report were selected for the purpose of this paper.

Below are the four recommendations:

 Table 2: Anti-Graffiti Program Recommendations

Recommendation # 7	PRNS should propose amending the Municipal Code to specify and reduce the number of days that graffiti is allowed to persist on property before action is taken, with special consideration for urgent graffiti.
Recommendation # 11	To address graffiti on freeways, railways, and expressways, the City should continue building relationships by: • Continue meeting periodically with large property owners (e.g. Caltrans and Union Pacific Railroad) who also have a graffiti problem, to address their joint areas of concerns; and • Explore possible Memoranda of Understanding between parties
Recommendation # 17	To improve its community involvement goals, PRNS should dedicate additional staff time to increasing volunteer efforts.
Recommendation # 19	PRNS should work to improve the Anti-Graffiti Program's visibility and accessibility through: • Brochures • Language accessibility • Physical accessibility • Unifying contact information • Website information

Source: City of San José, Office of the City Auditor, June 2013.

In order to effectively analyze each program and benchmark them against the stated recommendations, a logic model was used to evaluate the structure of graffiti removal programs. Figure 1 displays the logic model used in this research. It depicts the programs' similarities and differences based on: goals and objectives, inputs, activities, outputs, outcomes, and impacts. Inputs refer to the financial and human resources needed to operate the program. Activities refer to how said resources are used. Outputs refer to the units of service resulting from activities. Outcomes refer to the changed conditions for communities, as a result of inputs and activities. There are both short-term and long-term activities. Impacts are changes in the organization or communities. External factors affect all five categories and vary between jurisdictions.

Figure 1: Evaluation of Graffiti Removal Programs

GOALS AND OBJECTIVES									
INPUTS Financial and human resources needed to operate the program: Budget Staff Materials Contracts	ACTIVITIES How are the resources used: •Public Outreach efforts •Graffiti removal process	OUTPUTS Units of service resulting from activities: •Graffiti removal data	OUTCOMES Changed conditions for communities: •Short-term and long-term outcomes	IMPACTS Changes in organization or communities: •Performance indicators •Less urban blight	COMPLIES WITH BEST PRACTICES List of best practices that the program implements				
EXTERNAL FACTORS (Budgetary and/or societal factors)									

The goal of this benchmarking research is to provide best practices recommendations to California cities encountering graffiti removal issues. Performance data from each of the four cities was collected in a matrix to permit comparison, and to determine which factors are more likely to predict success (Figure 1). Performance data from the three benchmark cities were used to determine what practices may be best suited for San José, as all four cities simultaneously face budget restraints, and the Analysis will determine if one City's strategies are more effective than another, leading to a recommendation for structuring a successful city graffiti removal program.

IV. FINDINGS

City of San José

Known as the capital of the Silicon Valley, the City of San José covers 176 square miles in the Bay Area with a population nearing one million. Over 80 percent of San José residents have graduated from high school and almost 40 percent of residents hold a Bachelor's degree (US Census Bureau, 2012a). According to the US Census Bureau, the City's racial make-up is 43 percent White, 4 percent Black or African American, 32 percent Asian, and 33 percent Hispanic/Latino of any race. Males ages 18 to 24 make up 31 percent of the population and San José's median household is \$81,349 (US Census Bureau, 2012a).

San José's Anti-Graffiti Program is found in the PRNS Department. Prior to San José's contract with Graffiti Protective Coatings, Inc. (GPC), city crews performed graffiti abatement. Services were provided Monday through Friday on city property. Service requests were sent to the program's office and their target goal was to remove graffiti within 24-48 hours (City of San José, Office of the City Auditor, 2013).

Graffiti Protective Coatings, Inc.

Facing financial constraints, PRNS performed an analysis in 2011 to outsource graffiti removal services. The City entered into a five-year contract with GPC and total funds are not to exceed \$3,159,505. Under the new vendor model for graffiti removal, the City estimated a total \$600,000 in cost-savings. Figure 2 shows decreasing graffiti eradication costs in FY 2012-2013 compared to FY 2011-2012 and Table 3 compares costs before and after the City contracted out graffiti abatement services, resulting in significant program downsizing.

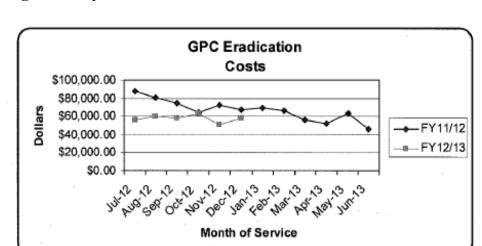


Figure 2: City of San José Graffiti Eradication Costs

Source: City of San José Memorandum, 02/25/2013

Table 3: City of San José Anti-Graffiti Program Downsizing

	FY 2008-2009	FY 2012-2013
Budget Total	\$1.66 billion	\$1.2 million
FTE	18	3.75

Source: City of San José Office of the City Auditor, 2013

San José's goals of beginning a new vendor model for removal services were to abate 100 percent of graffiti requests in 24 hours, remove graffiti in unassigned areas within 48 hours, and abate gang tags within 24 hours. An outcome goal of GPC's abatement is to eliminate secondary graffiti by color matching. A second outcome goal is using an online work order and database system, known commonly as the San José Clean Smartphone application (Edmond-Mares, 2011). The application allows the user to upload a photo of the graffiti, and the phone's GPS then adds location information. This is used to manage response routes for GPC.

Graffiti removal response times prior to contracting out services are shown in Table 4. Starting in 2007, City crews were able to improve removal efforts each fiscal year, removing 86 percent of hotline reports within 48 hours and 89 percent of gang graffiti within 24 hours, and ending FY 2010-2011 with removal percentages of 99 and 100 respectively. Table 5 depicts

results from 2011-2013, when the City entered into a contract with GPC; outputs were not as expected. An overwhelming positive response from the San José Clean Smartphone application and limited funding resulted in challenges for the vendor to reach the goal of graffiti removal within 24-48 hours (City of San José, Office of the City Auditor, 2013).

Table 4: Time of Graffiti Removal, 2007-2011

	Target	FY 2007- FY 2008- 2008 2009		FY 2009- 2010	FY 2010- 2011
Hotline Graffiti	100% within 48 hours	86%	84%	99%	99%
Gang Graffiti	100% within 24 hours	89%	92%	99%	100%

Source: City of San José Office of the City Auditor, 2013

Table 5: Timeline of Graffiti Removal, 2011-2013

	Target	Actual
		63% within 24 hours
Assigned Areas	100% within 24 hours	84%within 48 hours
Unassigned Areas	100% within 48 hours	88% within 48 hours
Citywide, Urgent	100% within 24 hours	85% within 24 hours
		67% within 24 hours
Citywide, All	None	86% within 48 hours

Source: City of San José Office of the City Auditor, 2013

According to San José's five-year contract with GPC, a new service delivery model was implemented. GPC focuses eradication in an assigned area to restore the area to a manageable maintenance level. Preliminary assigned areas were selected based on 2011 graffiti survey results and gang activity data. Once the assigned areas were contained, GPC would become assigned to another area. The new system created a centralized work order management system and digital filing system that supports law enforcement investigative activities and continued utilizing the 24-hour hotline (City of San José, Office of the City Auditor, 2013).

Table 6 compares the Anti-Graffiti Program before and after contracting out services. Program components include community involvement, enforcement eradication, budget and staffing, and performance targets. As stated previously, budget and staff were reduced. It is

important to note police investigators are no longer dedicated to graffiti cases and community involvement has weakened.

Table 6: A Comparison of the Anti-Graffiti Program: Before and After Outsourcing

Program Component	Before	After
Community Involvement	Outreach to private property owners to advise property owners on their obligations to remove graffiti to encourage voluntary compliance with free paint to seek permission for graffiti removal Public service announcements Annual Volunteer Recognition Event Partnerships with "San José Beautiful" and the Strong Neighborhoods Initiative Volunteer recruitment and training at schools, neighborhood associations Program information provided on website and local civic television channel	Annual Volunteer Recognition Event Program information provided on website and local civic television channel
Enforcement	2 dedicated police investigators + occasional additional support through approved overtime Ongoing coordination with the District Attorney's Office Expedited Code Enforcement process to address problem sites and hard-to-remove graffiti	When needed, coordination with the District Attorney's Office Forwarding problem sites to Code Enforcement
"Eradication"	10-12 maintenance workers Proactive routes + responding to service requests Covers entire City footprint Monday through Friday. Specific weekend routes of juvenile offenders supervised by County probation staff Specific weekend routes of juvenile offenders supervised by City staff through the County Sentencing Alternatives Program Ongoing coordination with major property owners (e.g. CalTrans and Union Pacific) and occasional partnerships to address specific cases	 3 - 4 technicians Assigned areas: Proactive + responding to service requests Unassigned areas: Responding to service requests 7 days a week Specific weekend routes of juvenile offenders supervised by County Probation staff Ongoing coordination with major property owners (e.g. CalTrans and Union Pacific) and occasional partnerships to address specific cases
Budget and Staffing	\$1.7 Million 18.13 Fulltime equivalents	\$1.1 Million 3.75 Fulltime equivalents
Performance Targets	Service requests completed within 48 hours (goal of 95%) Gang Graffiti removed within 24 hours (goal of 100%) Percentage of graffiti occurrences in City parks removed within 24 hours (goal of 99%)	 Assigned area: Service requests completed within 24 hours Unassigned area: Service requests completed within 48 hours Gang Graffiti removed within 24 hours (goal of 100%) Percent of customers rating City efforts at removing graffiti as good or better (goal of 90%)

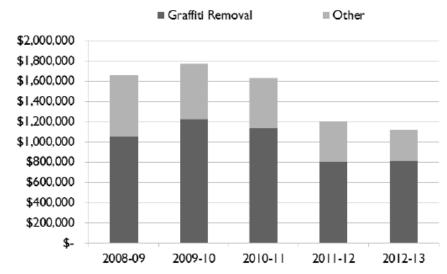
Source: City of San José Office of the City Auditor, 2013

The Graffiti Services Review Committee was established in October 2011 to observe and provide feedback of GPC's services tocity staff and City Council. The committee is responsible for the submission of semi-annual reports that analyze GPC's work output. Since their inception,

the committee has produced four reports. All four reports continually reported a volunteer network of 3,600. One report claims there are "...plans to use a new volunteer data management system..." (Edmonds-Mares, 2013, p. 6). Unfortunately, San José's anticipated large base of volunteers did not materialize. In addition, the Committee's semi-annual reports contradict information from Table 5. The reports state that GPC abated 96-98 percent of graffiti incidents within 48 hours, which included all work orders, even those not done by GPC (Edmonds-Mares, 2013).

A majority of service reports in 2012 were made through the San José Clean Smartphone application: from July 1, 2012 to December of the same year, there were 6,610 reports, compared to 1,228 email and 2,276 calls to the hotline (Edmonds-Mares, 2013). As a result of the escalated use of the San José Clean Smartphone application, GPC's budget quickly increased as orders were completed in unassigned areas. Figure 3 displays the high costs the program sustained in 2011-2013 after contracting out. As shown in Figure 4, the City estimated \$63,901 in annual costs for graffiti removal. Actual costs in 2011 and 2012 were closer to \$800,000. The City underestimated square footage of the restorative model, and the language found in the contract specifying removal efforts was not detailed (City of San José, Office of the City Auditor, 2013).

Figure 3: PRNS Budget FY 2008-2013



*This graph does not include additional funding from other City resources that contributed to PRNS' efforts.

Source: City of San José Office of the City Auditor, 2013

Figure 4: Higher than expected contract costs with 2 years of 5 year contract



Source: City of San José Office of the City Auditor, 2013

San José Municipal Code

Graffiti is defined as creating a condition of blight and as a public nuisance in San José's municipal code (2005), which focuses on property owners' responsibility to remove graffiti within a timely manner. Section 17.02.060 states that once an abatement order is issued, the owner has fifteen days to complete the removal. Citation procedures and administrative remedies are described in Chapter 1.15 and 1.14 respectively. Chapter 1.08 details the enforcement provisions of all codes in the City. The City has been removing graffiti from private property without receiving consent or reimbursement, leading to a lack of voluntary compliance and a

continued use of funds that were not directed for such work (City of San José, Office of the City Auditor, 2013).

Collaboration and Public Outreach

San José's Anti-Graffiti Program strives to remove graffiti through community involvement, eradication, and enforcement, with the help of volunteers, SJPD, city staff, GPC and outside agencies:

- Santa Clara Valley Water District
- Santa Clara County Probation Department
- Caltrans
- Caltrain
- California Highway Patrol
- Valley Transportation Authority
- Union Pacific Railroad

The city's improved graffiti model contacts Caltrans local managers, thus bypassing Caltrans' work order system. The use of Caltrans' automated service request system resulted in average response times of 30 days (Edmonds-Mares, 2012). The increased coordination efforts have led to the removal of graffiti from private property, and are providing public education as to which appropriate agency to report graffiti to (Edmonds-Mares, 2012). For example, the city has been coordinating with the police department, California Highway Patrol, and Union Pacific Railroad to remove graffiti from the 13th Street rail bridge over US Highway 101, which is owned by Union Pacific Railroad (O. Williams, personal communication, April 1, 2014). This will require public notification of highway lane closures and is set to occur sometime in April 2014.

Referring back to Table 6, it is clear that public outreach efforts began dwindling after San José entered into a contract with GPC. A positive outcome from contracting out is the increased use of the San José Clean Smartphone application, which became available to the public in January 2012. Also, public outreach materials are available in various languages, but

the program still struggles to retain volunteers. The 3,600 volunteers stated in the semi-annual reports is an arbitrary number and it does not state how many volunteers actually engaged in graffiti removal annually; it is only the number of volunteers registered in the database. Table 6 also shows before outsourcing, the Anti-Graffiti Program outreached to private property owners and recruited volunteers through schools and neighborhood associations. Similar efforts are not expressed on the table as elements occurring after outsourcing.

Currently, the City is working to greatly improve the Anti-Graffiti Program's public outreach. Current efforts are listed below (O. Williams, personal communication, April 1, 2014).

- San José Clean Smartphone application available in English, Spanish and Vietnamese
- Updated graffiti abatement information on the program's website
- New hard-copy outreach materials in English, Spanish and Vietnamese
- Outreach campaign team to attend schools and resource fairs to provide graffiti abatement information to the community
- Build community engagement and increase volunteer base

City of Long Beach

Twenty-two miles south of Los Angeles, the City of Long Beach covers 50 square miles with a population nearing 500,000. Similar to San José, 25 percent of Long Beach residents are under the age of 18 (US Census Bureau, 2012b). The U.S. Census Bureau (2012b) reported the City's racial make-up as 46 percent White, 14 percent Black or African American, 13 percent Asian, and 41 percent Hispanic/Latino of any race. In addition, males ages 18 to 24 make up 30 percent of the population and the median household income in the City is \$52,900 (US Census Bureau, 2012b). Relying on one-time revenue sources since the 1990s, in 2003 Long Beach public managers and elected officials worked towards fiscal sustainability to close their structural deficit. The city reorganized and consolidated bureaus and divisions to reduce administrative costs and addressed the fiscal challenge of pension liabilities (McGrath, 2012).

The purpose of Long Beach's Graffiti Abatement Program is to provide a system to keep all privately owned real property within the City free of graffiti (City of Long Beach Public Works Department, Public Service Bureau, 2010). Although Long Beach currently contracts out for graffiti removal services to GPC, various City departments continue to be involved in graffiti abatement: Streets Operations, Traffic Operations, which are both under the Public Works Department, and the Parks, Recreation & Marine Department (City of Long Beach Public Works Department, Public Service Bureau, 2010)

Since Long Beach signed its contract with GPC in 2006, the city has downsized their abatement crew and GPC performs all graffiti removal (City of Long Beach, 2006). Table 7 displays the City's last six years of funding history for the graffiti abatement program. Prior to 2011, graffiti removal was a large function of Long Beach's Redevelopment Agency and the Community Development Department. After 2011, redevelopment agencies were dissolved in the state (California Department of Finance, 2014) and the Community Development Department consolidated into two departments: Public Works and Development Services.

Funding for the program comes from the General Fund and Community Development Block Grants (CDBG). Currently, graffiti removal staff is concentrated in the Public Works Department and run by the Street Maintenance Supervisor and one administrative analyst (A. Cox, personal communication, March 3, 2014). The Public Works Department coordinates with other agencies, such as school districts and Caltrans, by contracting the appropriate individual to help remove graffiti for the respective property (A. Cox, personal communication, March 3, 2014).

 Table 7: Long Beach Graffiti Removal Program: Funding History FY 2008-2014

Department	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	Notes
DSD: Neighborhood Services Bureau	-	-	\$22,837,829	\$30,267,069	\$19,931,529	\$13,891,372	\$12,466,720	Funding structure: CDBG 69 percent, General Fund 9 percent, Development Services Fund 9 percent
FTEs	-	-	82.78	85.65	87.3	80.22	87.8	
PW: City Facilities Maintenance Program	\$1,626,705	\$1,499,640	\$1,322,471	-	-	-	-	*Change in organization structure: no city facilities maintenance program>PSB
FTEs	63.8	68.01	65.01	-	-	-	-	
PW: Public Service Bureau	-	-	\$3,338,706	\$3,926,879	\$3,359,730	\$3,641,566	\$3,106,410	Funding structure: General Fund 53 percent, Civic Center Fund 44 percent
FTEs	-	-	160.31	143.81	138.81	107.51	105.51	
Tags Removed	-	-	295,266	458,148	226,535	255,500	-	
CDD: Neighborhood Improvement Program	\$76,797,879	\$58,228,609	\$57,360,806	\$48,991,927	-	-	-	Funding structure: Housing Development Fund 36 percent, CDBG 19 percent, GF 10 percent; FY 2011 CD consolidated into other City departments
FTEs	124.35	123.72	126.61	128.73	-	-	-	•
Tags Removed	102,000	61,000*	-	-	-	-	-	*First 6 months of FY 09 before responsibility transferred to PW
DSD: Redevelopment Bureau**	\$124,602,643	\$117,205,401	\$165,268,974	\$207,878,204	-	-	-	** RDA dissolved 2011 due to AB1x 26; Long Beach reorganized RDA into Housing and Community Improvement Bureau to continue the City's efforts to enhance the quality of life in Long Beach
FTEs	35.85	43.08	36.52	40.88	-	-	-	

Source: City of Long Beach Adopted Annual Budget, FY 2008-2014

Long Beach Municipal Code

Long Beach's graffiti municipal code focuses largely on the property owner's responsibility to keep graffiti-free premises and not on the individual committing the crime. According to Title 8: Health and Safety, Chapter 8.58: Graffiti Abatement, the purpose of the City of Long Beach's program is to "provid[e] a system to keep all privately owned real property within the City free of graffiti and provid[e] a system for levy and collection to cover the cost of such removal by the City" (Long Beach Municipal Code Section 8.58.010, 1990).

Similar to other ordinances, it supplies definitions of terms used throughout the ordinance. Declaring graffiti as a public nuisance, the ordinance clearly states that the owner of the vandalized property has the responsibility to keep it clean. Owners have seven days to remove the graffiti and must obtain a certificate from the City stating that the graffiti has been removed. An individual can appeal the removal within five days of the notice. If the owner fails to remove the graffiti within the appropriate days, the Building Official has authority to remove the graffiti and expenses will be incurred by the City of Long Beach: the charge becomes "an indebtedness of the owner and tenant of such premises" (Long Beach Municipal Code Section 8.58.100, 1990). The ordinance continues to describe what would occur to property owners who fail to abate graffiti and pay the City. A civil penalty, a debt of the person charged to the City, is given to the owner if the same property continues to be a target and the graffiti is not removed.

Long Beach uses state law against graffiti vandals. Long Beach Municipal Code Section 9.36.020 (1990) asserts it is unlawful for any person to loiter around public or private property and engage in graffiti activity. If this occurs, the individual is subjected to Section 594 of the Penal Code (Long Beach Municipal Code Section 9.36.020, 1990).

Graffiti Protective Coatings, Inc.

In 2006, the City of Long Beach contracted out graffiti services with GPC to "form a more aggressive and proactive street team" (Richardson, 2010). Prior to the city's contract with GPC, city staff, community service workers, and contractors managed graffiti removal within the city and on private property. The 2006 contract focused removal services on privately owned properties (City of Long Beach, 2006). A monthly invoice of removal documentation included location of graffiti, square footage, method of removal, number of tags removed, and costs by unit measurement (City of Long Beach, 2006). The city's goal is to remove tags within 48 hours, with the ideal output of removal within 24 hours. Five days a week, one truck is assigned to each quadrant in the City and an extra truck patrols targeted thoroughfares. Table 8exhibits the successful outcome the city has experienced with graffiti removal: for the past six years, GPC has consistently removed graffiti within 24 hours of the initial report. Currently, the city's primary abatement method is color matching, but GPC also uses industrial-strength chemical solvents, pressure washing, and water blasting in certain areas. Tags on private property continue to be a challenge for the city, as well as tags on multiple-storied buildings and on billboards (A. Cox, personal communication, March 3, 2014).

Table 8: Long Beach Graffiti Removal Times

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	YTD: FY 2014
Total Number of							
Reports	55,562	50,086	58,851	67,576	66,605	67,050	23,131
Same Day Removal	99.0%	99.1%	99.9%	99.9%	98.1%	97.5%	98.8%
1-2 Days	0.62%	0.46%	0.06%	1.61%	1.61%	2.14%	1.03%

Source: City of Long Beach Public Works Agency, N.D.

In 2012, the city adopted a resolution to amend their contract with GPC to provide graffiti removal services on the same terms and conditions as the County of Orange. Under the section

titled Special Requirements, bullet 2 reads: "Response time requirements: All standard service requests to be completed within 24 hours. All emergency requests must be responded to within 1 hour" (City of Long Beach, 2012b). Color matching and the Go Long Beach Smartphone application are also key services provided by the vendor, clearly indicated in the contract. As seen in Figure 5, invoices must include precise information once an area is serviced.

Figure 5: GPC Invoice Requirements

- All invoices for work performed under this contract shall be submitted electronically in an Excel format or other format approved by the CPM.
- 2. The invoice shall include the following:
 - a. Contract number
 - b. Purchase order number
 - c. GPC's invoice number
 - d. Abatement site address
 - e. Work order number
 - f. "Before" and "after" photographs
 - g. Beginning and ending dates for services
 - h. Square footage removed for each method of removal
 - i. Total square footage removed
 - j. Funding source
 - k. Council district
 - Census tract
 - m. Unit cost, subtotals and total for invoice

Source: City of Long Beach Contract 32952, 2012

Community Programs and Public Outreach

The City of Long Beach has multiple community programs to fight the war on graffiti. In the FY 2013- 2014 Action Plan, the city proposes many goals to combat graffiti (City of Long Beach, 2014d). For five years, the city hopes to clear 30,000 sites of graffiti and restore 10 murals each year. The Neighborhood Services Bureau provides free graffiti removal to single-family homes, apartment buildings of 4 units or less, and small neighborhood serving commercial/retail buildings of less than 2,000 square feet. Only the property visible from the street and within 100 feet of alley entrances will be removed. In addition, private property owners and tenants are eligible for Long Beach's Free Paint Program (City of Long Beach,

2014a). Individuals are asked to call the graffiti hotline to receive a voucher number and follow instructions to pick up their free paint.

Launched in 1985, the Mural and Cultural Arts Program works closely with the Parks, Recreation and Marine Department and the Community Development Department to encourage social and artistic abilities. The Mural and Cultural Arts Program sponsors the Neighborhood Mural Program where each piece reflects the "City's diversity...stand as a force for unity" (City of Long Beach, 2014c, paragraph 2). The mural projects help to deter graffiti as it brings together the community and promotes community pride.

Although the city does not have a formal volunteer program for residents interested in removing graffiti, there are a number of other programs for community involvement to decrease blight. Long Beach became a Safe Streets Now! chartered site since 1993. The program trains neighborhood volunteers in how to reclaim their neighborhoods from nuisance conditions, including graffiti abatement. Assistance is provided to residents with the support of communication from various city departments, such as Code Enforcement and the Health Department (City of Long Beach, 2014a).

Established in 1987, Conservation Corps of Long Beach (CCLB) recruits and trains more than 200 at-risk youth each year. Their mission is to "raise self-esteem, develop basic work skills, work ethics, education, and promote teamwork for Long Beach area at-risk youth through a combination of work, conservation and education programs" (Conservation Corps of Long Beach, 2014). The program is partnered with neighboring cities of Long Beach, such as Belmont Shore and Signal Hill. The Long Beach Beautiful Program, launched in 2001 by City Council, is one program where CCLB helps to reduce litter and graffiti in the community. In 2011, CCLB removed over 800 incidents of graffiti (Conservation Corps of Long Beach, 2011). The CCLB

has not been involved in the past three years with graffiti abatement in the City of Long Beach.

Residents are encouraged to report graffiti to Long Beach's 24-hour hotline or to use the popular Go Long Beach Smartphone application. Launched in 2010, Go Long Beach grew in popularity; in two years, the City received over 22,000 service requests (Editor, 2012). Similar to other Smartphone applications, Go Long Beach allows its users to upload a photo of graffiti and the GPS tracking technology reports the location. Further information about reporting graffiti and related information can be found on the Department of Public Work's website (City of Long Beach, 2014b). Residents are encouraged to find removal information on the website, which is available in English, Spanish and Khmer. Information has not been updated on the Public Work's Graffiti Removal page since 2004.

City of San Diego

Encompassing 325 square miles, the City of San Diego has a population exceeding 1.3 million. Similar to San José, over 80 percent of San Diego residents graduated from high school and approximately 40 percent of persons 25 or older hold a Bachelor's degree (US Census Bureau, 2012c). Over 58 percent of San Diego's population is White, 7 percent Black or African American, 16 percent Asian, and 29 percent Hispanic/Latino of any race (US Census Bureau, 2012c). Two-thirds of San Diego's population is under the age of 35 and the City of San Diego has a median household income of \$63,990 (US Census Bureau, 2012c). Toby Ten Eyck and Brette Fischer (2012), professors from Michigan State University, investigated how the media in multiple cities perceived graffiti. Out of 15 articles, 13 articles written in the San Diego Tribune wrote negatively about graffiti (Ten Eyck & Fischer, 2012).

The city's current Strategic Plan (City of San Diego, 2014) establishes that customerfocused services are a key component of the City's goal to provide effective government; this includes timely response to graffiti complaints to avoid the detrimental impact graffiti has on communities. San Diego's Graffiti Control Program, consisting of graffiti abatement, law enforcement, and community outreach, was created in 1992 and works closely with businesses and private property owners to ensure quick removal of graffiti. The following year, the Neighborhood Code Compliance section (NCC) in the Development Services Department was created to address violations primarily associated with primary property, ensuring that residents live in a safe environment (NCC Budget, 2006). Other participatory departments include the Transportation and Storm Water Department's Street Division (TSWD), Urban Corps of San Diego County (Urban Corps), and the San Diego Police Department (SDPD). Staff and contractors are responsible for abatement and the Police Department's Graffiti Task Force implement deterrent sentencing of individuals guilty of graffiti vandalism. Restitution collected by the city has increased tremendously since the Graffiti Strike Force aggressively pursued graffiti vandals with the help of the NCC (NCC Budget, 2006). Property owners and volunteers are encouraged to receive free recycled paint from the Paint and Materials Exchange Bank to help abate graffiti.

San Diego Urban Corps Contract

Similar to the LBCC, Urban Corps participate in community projects to increase the overall quality of life in San Diego County. The city's 2006 contract with Urban Corps contained quantifiable performance measures, including a requirement for the vendor to remove graffiti within three working days after receiving a service request, and to remove any obscene, racist, or extremely threatening graffiti within 24 hours (City of San Diego, Office of the City Auditor, 2014). However, the city is in the process of finalizing a new contract with Urban Corps that eliminates these performance standards, and only states that graffiti removal should be

completed "in a timely and efficient manner" (City of San Diego, Office of the City Auditor, 2014, p. 42).

The Office of the City Auditor (2014) claims in their report that because the city's oversight and management of Urban Corps' contract is limited, it is difficult for the city to ensure taxpayers that the vendor is fulfilling performance obligations and or reporting accurate information. Under the city's provided work order system, Urban Corps staff logs complaints on paper forms and does not conform to performance standards (City of San Diego, Office of the City Auditor, 2014). There is no data available on key performance response times. Table 9 compares abatement sites reported by Urban Corps and the actuals seen on log sheets. In the selected four months, graffiti abatement totals are consistently higher than the totals reflected in the log sheets.

Table 9: Vendor-Reported Totals Comparison

	January 2012	July 2012	October 2012	April 2013	TOTALS
Totals Reported by Urban Corps	702	983	604	869	3158
Totals on Urban Corps Log Sheets	667	755	487	786	2695
Difference	-5.0%	-23.2%	-19.4%	-9.6%	-14.7%

Source: City of San Diego, Office of the City Auditor, Urban Corps Information, 2014

The 2014 audit claims Urban Corps "is only required to provide monthly totals of graffiti abatement work completed by source of complaint and property type. These reports contain only aggregate numbers, and do not contain information about individual work orders completed, which makes it impossible to determine response times" (p. 41). Unfortunately, the new contract outlines additional removals of services: the automated 24/7 hotline will no longer be staffed and Urban Corps will not be required to use Graffiti Tracker (City of San Diego, Office of the City Auditor, 2014).

Graffiti Control Program Downsizing

Over the past six years, the City has continued to downsize the Graffiti Control Program's budget and staffing, dedicating fewer resources to graffiti control and limiting public outreach and abatement efforts. San Diego currently budgets \$0.61 per resident for graffiti abatement, which is extremely low, despite having a larger population than comparable cities: the City of San José budgets \$1.41 per resident and Long Beach budgets \$2.30 per resident (City of San Diego, Office of the City Auditor, 2014). Table 10 shows that budgeted expenses have declined approximately 50 percent and staffing has declined nearly 40 percent.

Table 10: Graffiti Control Program Budget and Staffing, FY 2008-2013

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
City FTEs*, **	12.5	12.5	9	4	4	4
Urban Corps FTEs	9.5	9.5	9.5	9.5	9.5	9.5
Total FTEs	22	22	18.5	13.5	13.5	13.5
City Budget	\$1,007,086	\$1,035,042	\$747,792	\$377,960	\$338,474	\$332,654
Urban Corps						
Budget	\$480,000	\$480,000	\$480,000	\$480,000	\$538,494	\$463,000
Total Budget	\$1,487,086	\$1,515,042	\$1,227,792	\$857,960	\$876,968	\$795,654

^{*} These positions were part of NCC until their transfer to TSWD at the start of FY 2014.

Source: City of San Diego, Office of the City Auditor, 2014

San Diego Municipal Code

The San Diego Municipal Code sets forth abatement and enforcement provisions to achieve the City's graffiti control policy goals of "reducing blight and deterioration, protecting public health and safety, avoiding detrimental impacts of graffiti, preventing the further spread of graffiti, and strengthening the City's efforts against gang activity" (City of San Diego, Office of the City Auditor, 2014, p. 5). In the fall of 2007, the Public Safety & Neighborhood Service Committee voted to approve a zero tolerance policy update to the current city graffiti ordinance.

^{**} The City does not currently have budgeted positions dedicated specifically for the intake of graffiti complaints and supervision of abatement crews. Certain staff, in addition to other job duties, carries out those responsibilities. As a result, the staff resources the City allocates to graffiti control are slightly higher than budgeted figures shown here.

In May 2008, City Council amended Chapter 5, Article 4, Division 4, of the San Diego Municipal Code by amending Sections 54.0401, 54.0405 and 54.0414, and deleting 54.0412, all relating to graffiti (Maland, 2008). The Municipal Code was updated, requiring that graffiti vandals be charged under state anti-graffiti laws: this expressed the Council's intent that graffiti vandals be prosecuted to the fullest extent of the law, punishable as a felony or a misdemeanor, depending the cost of damage and the judge's decision (Section 594 Penal Code).

In the updated ordinance, graffiti is identified as a crime and a nuisance, and limits public access to materials to carry out graffiti: state law grants authority to San Diego to regulate the sale and display of graffiti tools, such as marking pens and aerosol paint containers (San Diego Municipal Code, 2008) The ordinance states it is "unlawful for any person, firm or entity engaged in a commercial enterprise, to display for sale, trade, or exchange, any aerosol paint container, marking pens...or glass etching product except in an area from which the public shall be securely precluded without employee assistance" (San Diego Municipal Code Section 54.0414, 2008, p. 5).

Section 54.0407 through Section 54.0410 (2008) describes the City's removal process on private and public property. The City removes graffiti on private property that is "visible from public streets, property or right-of-ways" (San Diego Municipal Code Section 54.0407, 2008, p. 3). The city only seeks cost recovery when the location has been abated more than five times in a year.

Graffiti Tracker Program

First implemented in 2006 by the City of Escondido, Graffiti Tracker has grown in San Diego County with the push for cities to participate in a coordinated regional effort to better document graffiti and identify and convict offenders by building stronger cases for prosecution

(SANDAG, 2012). Agencies are equipped with GPS-enabled cameras to take photographs of graffiti in their jurisdictions. Afterwards, images are uploaded into a centralized database to enable sharing of intelligence, and investigators can use Graffiti Tracker to generate reports that include statistics and information about group monikers, location and size of incidents, trends or paths of damage, migration of vandals, and arrest information.

An 18-month pilot program began in San Diego in January 2011. Costing approximately \$101,250, AT&T, San Diego Gas & Electric, and Cox Communications contributed funds for the digital GPS cameras, and the County covered a portion of the contract costs (SANDAG, 2012). The San Diego Association of Governments' (SANDAG) 2012 report concludes that jurisdictions using Graffiti Tracker effectively make robust cases for prosecution and increased restitution awards. The program has been instrumental in the SDPD opening hundreds of cases and receiving court-ordered restitutions since its inception. SANDAG's 2012 report claims jurisdictions using Graffiti Tracker effectively make robust cases for prosecution and increased restitution awards.

At the end of 2011, 22,563 graffiti incidents were entered into San Diego's Graffiti Tracker system. Although there were fewer graffiti cases prosecuted in 2011 than 2010, court-ordered restitution increased by 359 percent, from \$170,626 in 2010 to \$783,412 in 2011 (SANDAG, 2012). In FY 2013, the City received over \$250,000 in restitution, a positive outcome for the program (City of San Diego, Office of the City Auditor, 2014).

City Abatement Efforts

Graffiti Tracker does not capture all abatement requests in San Diego because not all participating groups use Graffiti Tracker (City of San Diego, Office of the City Auditor, 2014).

Despite the impressive outcomes SDPD has had with using Graffiti Tracker, Urban Corps are the

only abatement crew using Graffiti Tracker. Current division of responsibilities is complex, as each group has different property rights, there is no centralization for customers to report graffiti, and graffiti abatement response times are prolonged because of re-routing of service requests amongst TSWD, NCC, and Urban Corps, as seen in Figure 6. As a result of this decentralization, performance reporting has been inaccurate and customer service has been inconsistent. Various departments manage graffiti abatement in convoluted manners, and consequently it is difficult to generate statistically significant data, such as response times and the amount of time required to abate graffiti (City of San Diego, Office of the City Auditor, 2014). As a consequence, residents are not clear what reporting channels are available and there is no live operator for customers to contact (City of San Diego, Office of the City Auditor, 2014).

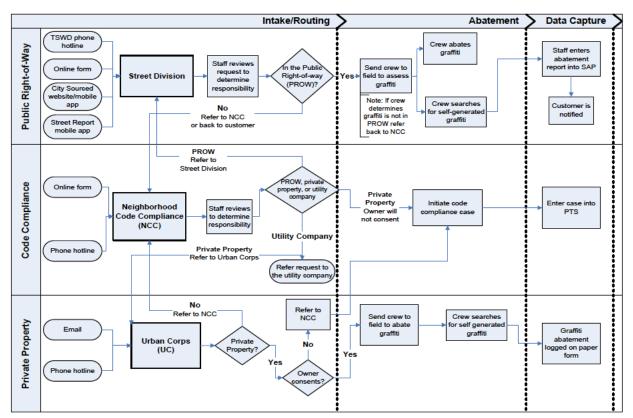


Figure 6: Decentralization of the City of San Diego Graffiti Abatement Efforts

Source: City of San Diego, Office of the City Auditor, 2014

Public Outreach and Coordination Efforts

Due to recent downsizing, the City has decreased its outreach efforts. The Office of the City Auditor (2014) recommends that the Graffiti Control Program create posters, public service announcements, flyers, brochures, and other media to educate the public on graffiti abatement. Previous community involvement included volunteer paint-outs, school presentations, and Urban Corps outreach. The Graffiti Control Program is not currently partnered with outside organizations. Although equipped with a reward program known as the Spray and Pay Program, only 16 rewards have been given out in the last three fiscal years due to limited public knowledge, amounting to \$4,025 (City of San Diego, Office of the City Auditor, 2014).

The 2014 San Diego Office of the City Auditor's report affirmed that the city lacks coordination with other groups conducting graffiti abatement within city limits. Table 11 specifies groups involved in abatement efforts. It is possible that these groups would not want to partner with the city, but the possibilities have yet to be explored.

Table 11: Groups Conducting Abatement Efforts in San Diego

City Groups	Non-City Groups				
 TSWD Street Division Urban Corps of San Diego City departments other than TSWD (Park & Recreation, Library, etc.) 	 Downtown Partnership San Diego Gas &Electric AT&T Cox Cable Time Warner Cable Metropolitan Transportation System (MTS) Caltrans United States Postal Service 				

Source: City of San Diego, Office of the City Auditor, 2014

City of Santa Ana

Located in Southern California, the City of Santa Ana covers 27 square miles and has a population of 330,920 (US Census Bureau, 2012d). According to the US Census Bureau (2012d), Santa Ana's demographic make-up is 46 percent White, 2 percent Black or African American, 11 percent Asian, 78 percent Hispanic/Latino of any race, and 9 percent non-Hispanic Whites. Only 12 percent of male residents in Santa Ana are between the ages 18 and 25 and the median household income for Santa Ana is \$54,387 annually (US Census Bureau, 2012d). About 30 percent of their population is under the age of 18 and approximately12 percent of persons 25 and older hold a Bachelor's degree or higher (US Census Bureau, 2012d).

The City's stakeholders in the graffiti removal program include the Public Works

Department, Parks and Recreation, Planning and Building, the City Attorney, Community

Development, the Police Department, and the Santa Ana Unified School District.

Representatives from these agencies collaborate together to accomplish goals for the Graffiti

Task Force, whose mission is "to improve the quality of life for those who live, work and visit our city, by removing urban blight and effectively sharing resources by coordinating multiagency efforts for: graffiti abatement, enforcement, and public education" (Santa Ana Police Department, 2008a).

The Graffiti Task Force began in 1992 when tagger graffiti began to grow considerably in southern California. Its presence alarmed the city because "no public or private space was free from vandals" (Santa Ana Police Department, 2008a). Tagging crews continue to be an issue for the city since many are involved in criminal gang activity, and it is easy for individuals to shift allegiance to other crews, thus forming new identities. Focusing on eradication, the city in recent years has focused on community programs to help deter juveniles from criminal activity. Santa

Ana's graffiti removal program's goal is to continue strong coordination with involved agencies and remove graffiti within 48 hours (Santa Ana Police Department, 2008b). Table 12 displays the specific responsibilities for each Santa Ana agency involved in abatement.

Table 12: Santa Ana Graffiti Abatement: Agencies and Responsibilities

Agency	Responsibilities
Public Works	 Remove reported and observed graffiti within 24 hours of hotline calls Provide 7 days a week removal service. Manage GPC weekend removal work and color matching contract performance. Update GTF Web page with current information. Attend community meetings to promote Anti-Graffiti Program. Provide monthly graffiti update reports to Council.
Police Department	 Develop plan to implement the Graffiti Tracker program. Attend community meetings/school meetings to promote anti-graffiti related programs. Assist with the design of anti-graffiti marketing materials to be distributed at community meetings and anti-graffiti presentations. Three full-time GTF detectives work proactive graffiti suppression citywide. Provide mediation references for first-time offenders. Conduct weekly probation searches to ensure probationers are in compliance. Promote the City's Graffiti Rewards Program and facilitate its regular use.
Parks & Recreation	 Inspect, identify, and eradicate graffiti on park sites, bike trails, recreation centers, and senior centers each day using a variety of methods. Manage the Youth Court Referral and Graffiti Removal Program. The program provides first time juvenile graffiti offenders with the opportunity to complete their assigned community service hours in a supervised setting. Provide Court Referral and Graffiti Removal Program orientation to youth and parents. Track completion hours for the Court Referral and Graffiti Removal Program and prepare reports for referral agencies and program participants.
Planning & Building	 Enforce new anti-graffiti ordinance, conduct citywide proactive enforcement. Address calls for service for graffiti enforcement and graffiti hotline referrals within 48 hours. Recommend building modifications to property owners and business owners to prevent recurrence of graffiti; refer business owners' graffiti concerns to SAPD. Promote anti-graffiti program through presentations at schools, parent-teacher associations, neighborhood association meetings, Communication Linkage, and business associations. Participate in the Public Education/Marketing Subcommittee to promote the Anti-Graffiti Campaign.
Community Development	 Establish neighborhood volunteer program. Discuss the activities of the GTF at neighborhood association meetings. Produce marketing materials.
City Attorney	 Enforcement of Santa Ana Municipal Codes designed to prevent the proliferation of graffiti throughout Santa Ana. Criminal prosecution of individuals and businesses charged with violations of Santa Ana's antigraffiti ordinances. Review and research pertinent to Santa Ana Municipal Code and California Penal Code sections to be used in anti-graffiti enforcement. Educate the Police, Community Preservation, and other enforcement agencies on the legal tools available for enforcement and prosecution in the fight against graffiti.
Santa Ana Unified School District	 Remove graffiti from School District property. Work with SAPD to set up graffiti presentations at school sites. Continue truancy program. Work proactive graffiti suppression at all school sites. Provide mediation references for first-time offenders.

Source: Graffiti Task Force Annual Report, 2008

Santa Ana Municipal Code

Santa Ana's Municipal Code, Chapter 10: Crimes and Miscellaneous Law Enforcement Provisions, Article IV Graffiti Regulations, begins by defining eleven graffiti terms. The ordinance then addresses the sale and possession of graffiti implements by minors and that it is "unlawful for any person under the age of eighteen (18) years to possess any graffiti implement while on school property..." (City of Santa Ana Municipal Code Section 10-222,2009). Santa Ana's ordinance also states that it is unlawful for any person to help another individual plan to apply graffiti. Sec. 10-224 (2009) addresses the penalties and describes the violation as a misdemeanor. Individuals will be punished with restitution and if the individual is a minor, this penalty falls on the shoulders of the individual's legal guardian.

In lieu of such penalties, there is also the consequence of community service. Santa Ana's municipal code describes the minimum requirements:

• First Offense: 40 hours

• Second Offense: 80 hours

• Third Offense: 120 hours

 If the individual is a minor, a legal guardian must be present for a minimum of 50 percent of the assigned community service

Sec. 10-225 (2009) describes the City's Anti-Graffiti Trust Fund. All monetary penalties from violators will be placed in the fund as well donations from outside sources that wish to contribute to the fund. The City also offers rewards for "information leading to the apprehension and conviction of any person who places graffiti on any public or private property..." (City of Santa Ana Municipal Code Section 10-226, 2009).

According to Santa Ana's ordinance, graffiti constitutes a public and private nuisance. The City is authorized to remove graffiti on City property by using public funds and can do so by painting, repairing, water blasting, or use any other reasonable graffiti removal technique. Private property owners have ten days to remove graffiti. The City can enter into consent with the owner to remove the graffiti and recover the costs pursuant to California Penal Section 594. Chapter 17 of Santa Ana's municipal code states the City Council has the ability to adopt a resolution to specify the amount assessed against each offender, using information from the report filed by the officer that records the expenses used in abatement, as well as the assessment against each parcel of land exposed. A hearing is held and collection is due to the Director of Finance.

Graffiti Protective Coatings, Inc.

Santa Ana's Police Department's website (2014a) claims tagging "is not an art form or about expressing oneself. It is vandalism and the destruction of private and public property...the difference between graffiti being art or a crime is permission" (Paragraph 1 & 2). Santa Ana has contracted out graffiti removal services to GPC since 1999 (R. Ruiz, personal communication, February 21, 2014). In 2008, the City Council approved a Monday through Friday colormatching program in the commercial corridors of the City with GPC (Santa Ana Police Department, 2008a). This was added to GPC's contract of graffiti removal on the weekends. In February 2011, City Council entered into an agreement with GPC, for a one-year period with provisions for 4 one-year renewals, for seven days a week, including weekends and holidays (City of Santa Ana, City Council Minutes, 2011).

GPC is responsible for removing graffiti within 24 hours based on requests received from City staff and residents through the City's graffiti hotline and the mySantaAna Smartphone application. Since the inception of the contract, GPC has "consistently demonstrated the ability

to meet contract specifications by providing color matching and daily upper-level graffiti removal, and facilitating graffiti crime analysis citywide" (City of Santa Ana, Request for Council Action, 2014). In 2014, the City reported that the graffiti removal program realized a 30 percent decrease in calls for service, as well as a 65 percent decrease in Code Enforcement referrals. This is attributed to the proactive performance by GPC and the removal of graffiti from windows and commercial signs (City of Santa Ana, Request for Council Action, 2014). The City has realized a 90 percent success rate for responding within 24 hours of receiving service requests.

The City of Santa Ana has downsized their graffiti abatement program as a result of their contract with GPC. As depicted in Table 13there are currently 1.5 full-time equivalents and 2 part-time equivalents. The city's abatement program is funded as part of the Sanitation Enterprise Fund. Court restitutions from graffiti violations are placed in the Graffiti Abatement Enterprise Fund. Performance measures found in the city's annual budget are based on service level provided by past City abatement crews and the contractor (Figure 7). Since 2011, GPC is the sole provider of graffiti removal in the city.

Table 13: Santa Ana Graffiti Abatement Program

	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14
FTE	12	7	7	1	1.5	1.5
PTE	7	7	7	7	2	2
Sanitation	\$2,317,558	\$2,381,710	\$2,240,829	\$1,539,085	\$1,711,455	\$1,488,060
Enterprise						
Fund						
Graffiti	\$53,529	\$32,106	\$35,304	\$48,419	\$35,000	\$30,000
Restitution-						
Courts						

Source: City of Santa Ana Budget Documents, FY 2008-2014

Figure 7: Sanitation Enterprise Fund: Graffiti Abatement Program Performance Measures

PERFORMANCE MEASURES	Actual	Actual	Estimated	Objective
PERFORMANCE WEASURES	FY 09-10	FY 10-11	FY 11-12	FY 12-13
Service Level By City crews By Contractor	2,990,890 1,520,980	2,239,982 2,952,740	N/A 6,100,000	N/A 6,000,000
# of graffiti locations cleaned By City crews By contractor	100,660 67,100	88,353 54,728	N/A 122,153	N/A 120,000
Total painted Total water-blasted	4,060,600 451,270	4,673,344 519,378	5,490,000 610,000	540,000 600,000
# of signs (graffiti removal)	10,716	8,044	5,372	6,000

Source: City of Santa Ana FY 2012-2013 Annual Budget

As previously stated, after 2011, the City's abatement crew began to include GPC during weekday services. The Crew works seven days a week, from 6a.m. to 4p.m. The 2014 Request for Council Action included GPC's fee schedule, depicted in Figure 8 below.

Figure 8: GPC Fee Schedule

Contractor will provide five (5) graffiti removal personnel- Paint and water blast combo, each working 40 hours per week.

Contractor shall schedule personnel such that graffiti removal occurs seven (7) days per week, including weekends and holidays.

Contractor employees working pursuant to this Agreement will perform approximately 2,500 to 3,000 removals per month and remove 50,000 to 60,000 sq. ft. of graffiti per month.

City shall pay \$10,000 per Contractor employee assigned to City graffiti abatement (40 hours per week) for a total not to exceed amount of \$50,000 per month.

City may increase the number of graffiti removal personnel at no additional increase in the unit bid price.

Said fee shall include all Contractor costs including direct and indirect labor costs, overhead, materials, printing, travel, and mileage.

Source: City of Santa Ana Request for Council Action February 4, 2014

The City of Santa Ana is pleased with GPC because of their outstanding work. GPC has demonstrated the ability to provide a high standard of service(R. Ruiz, personal communication, February 21, 2014). Santa Ana continues to renew the contract annually with no increase in pricing. In 2014, the city reported that GPC provided additional services at no cost, which included support at city park cleanup days; a sixth maintenance truck for 20 hours a week to help with graffiti abatement in parks; unlimited upgrades and support for the graffiti tracking software; a 4G network for the Gang Task Force to access the graffiti tracking system in the field; and a free Smartphone application for reporting and managing graffiti service requests.

Graffiti Removal Data

Table 14 displays graffiti removal data for the City of Santa Ana. The inconsistent dates and data are a result of limited data available in the past five calendar years.

Table 14: City of Santa Ana Graffiti Removal Program Activity

		07/2009	07/2010			
	2008	- 12/2009	- 12/2010	2011	2012	2013**
Graffiti Removal						
Hotline Calls	15,546	6,225	6,470	5,935	9,709	7,421
mySantaAnna App						
Orders	-	-	-	400	542	573
Locations responded to						
by Abatement Crew	14,591	5,540	5,768	6,162	10,294	7,994
Volunteers	35*	19	17	12	28	4
Average Response						
Time						
Same Day	-	-	-	58%	65%	49%
Within 24 Hours	-	-	-	25%	20%	38%
Within 48 Hours	-	-	-	13%	11%	10%
Police						
Arrests by SAPD	339	151	103	112	152	145
Restitution received for						
graffiti cases	\$42,301	\$17,455	\$18,270	\$22,102	\$31,573	\$23,661
Outreach						
Presentations	41	3	2	0	0	0
Anti-graffiti poster						
distributed	415	-	-	-	-	-

^{*}March 08-Dec 08

Source: City of Santa Ana, Graffiti Task Force Monthly Reports, 2008-2013

Public Outreach and Coordination

Santa Ana encourages efficiency and faster graffiti removal response times with its mySantaAna Smartphone application. It allows residents with iPhones and Android phones to immediately report graffiti. The built-in global positioning system allows the application to add a location to the picture and send the information to the Public Works Department for resolution. Aside from Santa Ana's graffiti hotline, mySantaAna is growing in popularity as it continues to be marketed to Santa Ana residents. Also available to residents is a 25 percent discount for paint through Vista Paints for color matching.

^{**} Missing December information

In 1994 the City adopted a reward program to encourage individuals to inform the police graffiti taggers. The City of Santa Ana will pay \$500 for information leading to the arrest and prosecution of suspects for graffiti related vandalism (City of Santa Ana, 2014b). Information is reported to the Graffiti Task Force Investigative Unit and once the case is successfully prosecuted, the investigator involved prepares a recommendation for payment of reward.

The Santa Ana Police Department (SAPD) has an education strategy to help decrease blight. The strategy includes graffiti education information aired on cable television, local news media articles in Spanish, community education seminars to help legal guardians recognize the signs that their children are involved in graffiti activity, marketing the graffiti hotline, and meetings with business owners regarding the proper steps to reduce the likelihood of graffiti (Santa Ana Police Department, 2008). Currently, educational information to the public is available in English, Spanish, and Vietnamese.

As seen in Table 14, the number of volunteers has declined in recent years. Santa Ana's abatement program is working well and removal consistently takes place within 24 to 48 hours. Volunteers are not a necessary component of their program and graffiti Clean-Up Days are for educating the community on their efforts to remove graffiti and to have the community help in a specific area during the events, which are held in parks and walking trails (R. Ruiz, personal communication, February 21, 2014).

The City refers all freeway and highway graffiti to Caltrans. Employees report graffiti incidents to Caltrans' Graffiti Hotline. The City does not have any history of issues with Caltrans removing graffiti (R. Ruiz, personal communication, February 21, 2014).

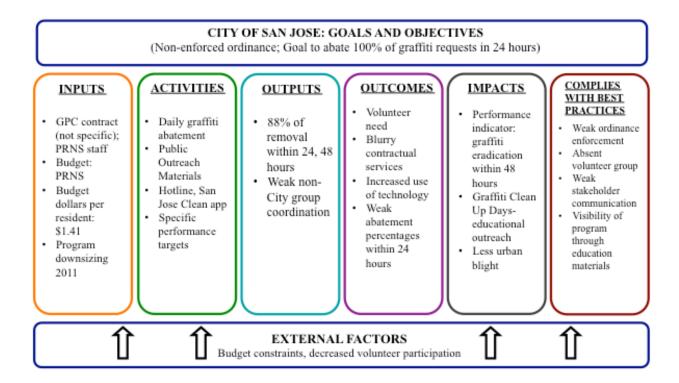
V. ANALYSIS

The intent of this analysis is to determine whether the San José's City Auditor's recommendations, seen as best practices standards, are imperative for a successful graffiti removal program. Performance data collected from the three benchmark cities suggest what practices may be best suited for San José. This analysis will determine if one city's strategies are more effective than another's, leading to a recommendation for structuring a successful city graffiti removal program in San Jose.

Based on these findings, it is clear that municipalities approach graffiti abatement in various forms. The logic models below summarize each city's graffiti removal program structure

Figure 9: Summary of Graffiti Removal Programs

A. City of San José

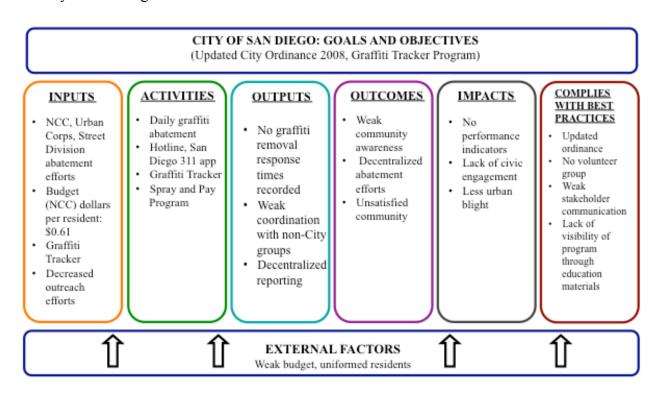


B. City of Long Beach

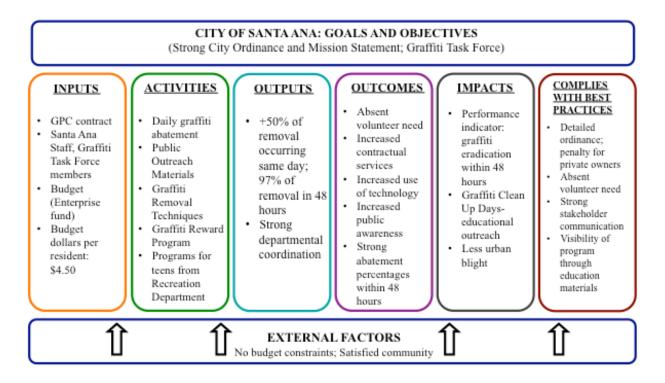
CITY OF LONG BEACH: GOALS AND OBJECTIVES (Strong City ordinance against graffiti on private property) ACTIVITIES COMPLIES OUTCOMES INPUTS OUTPUTS IMPACTS WITH BEST No volunteers PRACTICES Performance · GPC contract Daily graffiti Continuous Increased indicator: Ordinance (detailed, abatement 99% graffiti contractual graffiti detailed for specific) Public Outreach removal in 24 services eradication graffiti on Materials Budget: Increased use hours within 24 private property Public Works Free graffiti of technology Strong nonhours No volunteer Budget removal Strong City group Graffiti Clean group dollars per services; free abatement Up Dayscoordination Stakeholder resident: paint program percentages educational communication Color \$2.30 Mural & Cultural within 48 outreach Minimal matching Public Works Arts program hours Less urban visibility of staff Hotline, Go blight program through Long Beach app education materials EXTERNAL FACTORS

No budget constraints; Satisfied community

C. City of San Diego



D. City of Santa Ana



It is important to note the size of each jurisdiction: San José, 176 square miles, Long Beach, 50 square miles, San Diego, 325 square miles, and Santa Ana, 27 square miles. Intuitively, a larger jurisdiction has a larger arena to combat graffiti. Based on the provided data, both San José and San Diego are working hard to improve their graffiti removal programs to obtain positive outcomes. San José is striving toward 100 percent of requests to be removed within 24 hours and San Diego is aiming to record response times for future analysis. Long Beach and Santa Ana report strong graffiti abatement data with 99 percent and 97 percent of graffiti removed within 24 hours of reporting, respectively.

Graffiti is a cyclical trend that is affected by weather, gang graffiti, and the aggressiveness of a jurisdiction's police department and district attorney. California has experienced warmer temperatures and a lack of rainfall in the past few years. These contingencies create a welcoming environment for graffiti artists (O. Williams, personal

communication, April 1, 2014). The appearance of gang graffiti also increases the chances of future vandalism, thus it is good practice for an agency to remove gang graffiti within 24 hours, a primary goal of San José. In addition, aggressiveness from police and district attorneys help to decrease the appearance of graffiti, as both agencies work towards the reduction of blight and increased safety in communities.

Contracting Services: Cost-Benefit Analysis

Although San Diego is the largest city in this research, it spends the least amount of money annually on outsourcing (City of San Diego, Office of the City Auditor, 2014). It is difficult to analyze the impact this may have on the community because of the lack of response time data available. Table 15 compares all four cities based on population size, the dollar amount allocated for removal, and time response outcomes. Long Beach and Santa Ana completely outsource for removal, and city staff helps manage the reporting system and provide resources to residents (police departments in both cities play a large role in graffiti vandalism cases). Both cities have consistent graffiti removal response times and do not need a volunteer program to support removal.

As illustrated in Figure 4, San José estimated \$631,901 per year on graffiti removal services, but actual annual spending was over \$800,000. Equipment and employee salaries are fixed costs that did not change in San José. However, variable costs were tied to the amount of square feet abated, and because GPC abated unassigned areas more effectively due to the lack of a robust volunteer program (88 percent within 24 hours) and incorrectly logged abatement efforts, San José exceeded estimated costs. The larger annual costs did not result in effective graffiti removal response times.

In order to decrease spending in the remaining contract period (2 years), the City of San José may need to reevaluate its current contract with GPC, and create stronger language, to ensure that the contractor is removing graffiti in assigned areas first. Increased community outreach may help build its volunteer program to assist the City in its abatement efforts. The ultimate goal of any city's abatement program is to decrease blight in its communities and improve the overall livability in a community, and as seen in Table 15, higher costs do not necessarily result in a strong, positive benefit to the community. Rather, the target is effectiveness and efficiency, the ultimate goal of contracting services.

Table 15: Four Cities Comparison

City	FTE	Contractor	2013 Annual Cost for Contractor	Population	Response Times
San José	3.75	GPC	\$631,901 (\$800,000)*	982,765	Assigned Areas: 63% within 24 hours Unassigned Areas 88% within 24 hours Citywide, Urgent 85% within 24 hours Citywide, All 67% within 24 hours
Long Beach	1.5	GPC	\$1,077,660	467,892	98.8% within 24 hours
San Diego Santa Ana	1.5	Urban Corps GPC	\$463,000 (\$795,654)* \$1,488,060	1,338,000 330,920	No data available 87% within 24 hours

^{*} Actual annual spending

The use of restitution towards a city's graffiti abatement program can be effective and another source of revenue for a municipality. However, it can be challenging to prosecute the cases and collect the funds. For example, San José Police Department continues to experience a shrinking budget and low recruitment levels. It is difficult to capture restitution at its highest potential without a designated officer assigned to graffiti vandalism. The City of Santa Ana has assigned two investigators to graffiti-related cases and continues to use restitution to fund their program.

^{**}Total annual budget

City Municipal Codes

San José's Municipal Code states that property owners are responsible for graffiti removal on their property. However, the City continues to remove graffiti from private property without consent from the owner, without notifying the owner, and without seeking reimbursement. Long Beach, San Diego, and Santa Ana seek cost recovery when removing graffiti from private property, or public property not owned by their respective cities. As noted in the findings, San Diego will abate a location five times in one year before proceeding to reimbursement. Santa Ana only allows owners ten days to remove graffiti from private property. Similarly, Long Beach allows owners seven days before they are faced with a civil penalty and a debt charged against each individual.

As recommended by the City of San José City Auditor's Office, San José needs to enforce its current ordinance to penalize private property owners when graffiti appears and is not removed, which requires amending the current Code to specify a number of days before consequences ensue (Recommendation #7). Notification will help solve this issue and reimbursement will help with the administrative costs associated with notifying owners. San José's current ordinance states it needs consent prior to graffiti removal on private property, but this has not been done in practice. Enforcement of a strong, detailed Municipal Code is part of best practices of graffiti abatement, and as proven by the Cities of Long Beach, San Diego, and Santa Ana, it is necessary to continue to decrease blight in communities.

Non-City Group Coordination

Long Beach does not have strong partnerships with non-City groups. When removal is required by Caltrans, the City contacts the appropriate individual and uses the agency's designated hotline. Santa Ana also contacts Caltrans for graffiti on its property, and reports that

they have not had issues in the past when working with the state agency. As stated in the Findings section, the City of San Diego Office of the City Auditor claims the city has the potential to improve its abatement efforts if it could strengthen its partnerships with various non-City groups, including Caltrans and the United States Postal Service. San José also struggles with working with non-City groups but has improved in terms of meeting with involved parties, including Union Pacific, Caltrans, San José Police Department, and California Highway Patrol

Cooperation among all stakeholders involved in graffiti removal is essential for optimal outcomes (Recommendation #11). During the interviews, the benchmark cities did not express a high need for coordination among other agencies within its jurisdiction. San Diego is expected to follow the audit's recommendation to explore options of working with non-City groups to help abatement efforts. It is evident that the City of San José has made this a high priority, and the administration stated in the audit that they would seek out memorandums of understanding with the appropriate groups to improve abatement efforts. No further headlines of such cooperation have appeared in the present fiscal year.

City Volunteer Programs

As stated in the Literature Review, volunteers and free supplies are an aspect of best practices for an efficient and cost effective graffiti removal program. San Jose assumed that its large pool of graffiti removal volunteers would continue to work with the new vendor, which was a factor in the decision to downsize and outsource the program. The volunteer force did not materialize and the City was faced with a program that exceeded its budget for the first two years (Recommendation #17).

San Diego currently has a weak volunteer program due to its decrease in public outreach efforts. The City may benefit in its abatement efforts if it improves its outreach efforts and

sustains a volunteer program. The Public Works Department of Long Beach does not have a special volunteer program for graffiti removal. Rather, the City depends on GPC to complete all graffiti removal reports. The City does provide programs for residents to become informed in ways to clean up graffiti, such as Safe Streets Now! and the Mural and Cultural Arts program. Santa Ana depends on GPC for all removal and does not need a volunteer force. Both Long Beach and Santa Ana use cleanup and paint-out days to educate the public on graffiti related topics.

Volunteers are an unstable labor force and it is difficult to be certain of their future input. It is in San José's best interest to increase volunteer efforts, but the administration has already indicated that there will be limitations in budgetary resources and staffing. This is a conflicting remark published in the 2013 audit with the 2013-2014 adopted PRNS budget. The Anti-Graffiti Program received \$75,000 to increase its "market volunteer efforts" because "[v]olunteers are a vital part of the service delivery" (2013-2014 adopted budget, p. 204). With this challenge, San José may want to research further why municipalities, such as Long Beach and Santa Ana, are not dependent on a volunteer force and still reach impressive goals of 99 percent of graffiti removal within 24 hours. San Jose's contract with GPC was designed with volunteers doing non-emergency removals in non-target areas, but with the lack of volunteers the contractor answered more non-assigned area calls. The city may want to work with GPC to alter the contract to include more areas for removal and analyze the cost-benefit.

Visibility of Program

Downsizing significantly affects the degree to which cities can supply education materials to the public. Referring to Table 15, all four cities have endured significant downsizing in staffing and budgetary resources, limiting their capabilities of producing and maintaining up-

to-date educational materials. Public outreach information is an important piece for cities to incorporate in their graffiti removal program. It is listed as a component in best practices and increases a city's visibility of its program (Recommendation #19). With the advent of social media outlets the anti-graffiti message could become part of a city's Facebook, Twitter and website outreach in multiple languages at little incremental cost.

Although Long Beach only provides information online, the city maintains information in English, Spanish, and Khmer and clearly displays multiple ways for the public to report graffiti: through email, use of the hotline, or use of the Go Long Beach Smartphone application. Santa Ana's Public Works Department and SAPD work together to effectively display graffiti information for the City. Presently, San Diego is working towards reaching previous public outreach efforts. This is required to inform residents of available resources and ways to report graffiti in the City.

According to the Anti-Graffiti Program 2013 audit, San Jose PRNS claims in FY 2013-2014 the program will improve its public outreach efforts. The department will work towards updating its website with new outreach materials. Additionally information will be available online; the depth is dependent on staffing and budgetary resources. Materials will be available in English, Spanish, and Vietnamese and will be located in areas deemed accessible to the public, which is a best practice for graffiti removal.

VI. CONCLUSION

Unfortunately, graffiti removal programs tend to be among the first to experience budget cuts in the wake of a financial crisis. As a result of the 2008 recession, all four municipalities discussed have experienced significant program downsizing due to shrinking budgets. Practicing cost-saving strategies, staff is eliminated and positions are contracted out. San Diego is currently

working towards a more efficient contract with Urban Corps to improve response times of removal and the overall effectiveness of their program.

Referring back to The Graffiti Consultants' 10 steps to a successful graffiti removal program, and based on the results of this research, an effective abatement program should include a strong anti-graffiti ordinance, constant cooperation and coordination with affected agencies, and active civic engagement efforts, such as the creation of brochures, language accessibility, physical accessibility, unified contact information, and a user-friendly website. A robust volunteer program is not necessarily required for the success of a program, if the contract can be funded adequately.

The cities of Long Beach and Santa Ana are examples that a municipality can succeed in obtaining positive response times for graffiti removal with the absence of a strong volunteer force. This may be due to the size of the municipality, but this would require further research to determine if this is a significant contributing factor. However, for the success of the San José Anti-Graffiti Program, a strong volunteer basis is necessary, thus the current increased efforts for public outreach and a focus on prevention to tackle the cyclical nature of the City's graffiti dilemma.

Appendix A

California Graffiti Removal Program Interview Questions

- 1. What is your role in relation to the City's graffiti removal program?
- 2. How long have you been in this role?
- 3. Please describe a typical day in your job position.
- 4. What would you describe as the successes of the City's graffiti removal program?
- 5. Is the program facing any issues in regards to funding?
- 6. Are there internal or external factors that help the growth of the program? Hinder the growth of the program? Please explain.
- 7. Does the City's program work well with other agencies such as Caltrans? In what type of capacity?
- 8. Have you seen any particular changes regarding graffiti removal in the past five years?
- 9. What are the goals of programs (i.e. remove graffiti within 24 hours) and recent outcomes?
- 10. What languages is graffiti abatement education material provided in to the community?

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