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June 2012

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TO: Interested Individuals

FROM: Cynthia Burke Ph.D., Director, Criminal Justice Research Division

SUBJECT: *Graffiti Tracker: An Evaluation of the San Diego County Multi-Discipline Graffiti Abatement Program*

The SANDAG bulletin, "*Graffiti Tracker: An Evaluation of the San Diego County Multi-Discipline Graffiti Abatement Program*", is enclosed for your information. This bulletin summarizes results from a regional pilot project to combat graffiti. The goal of this pilot was to utilize technology (*Graffiti Tracker*) to better document graffiti and identify and convict the most prolific offenders through a coordinated regional effort.

To ensure that the project was documented and the region's policy makers had a clear understanding of the usefulness of the system, SANDAG conducted a process and outcome evaluation. Some of the key findings from the evaluation include the following:

- A total of 82,482 graffiti incidents were documented in *Graffiti Tracker* across the region in 2011, which equates to about 226 incidents per day.
- The cost to remove this graffiti, which encompassed almost 619,000 square feet, was conservatively estimated at almost \$16 million.
- Nearly all (94%) of pilot project participants surveyed in 2012 said they would personally recommend continued use of the *Graffiti Tracker* system across the region.
- Court-ordered restitution for these cases increased from \$170,626 in 2010 to \$783,412 in 2011.

The bulletin is also available at [www.sandag.org/cj](http://www.sandag.org/cj). If you need assistance accessing the report or prefer an e-mail notification rather than a hard copy, please contact Liz Doroski at (619)699-6921 or [Liz.Doroski@sandag.org](mailto:Liz.Doroski@sandag.org). We invite you to visit our Web site and review the numerous reports and projects pertaining to public safety. Thank you for your interest.

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***Graffiti Tracker:***  
An Evaluation of the San Diego County  
Multi-Discipline Graffiti Abatement Program

June 2012

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As of May 22, 2012

# GRAFFITI TRACKER: AN EVALUATION OF THE SAN DIEGO COUNTY MULTI-DISCIPLINE GRAFFITI ABATEMENT PROGRAM

## Introduction

The presence of graffiti in a neighborhood can be described as a quality of life issue, contributing to a neighborhood’s sense of cohesiveness and decreased feeling of safety. It can also be a costly problem for public entities and private citizens, and graffiti done in the interest of gang identification can relate back to incidents of violent crime.

Demonstrating their understanding of the significance of this issue, in January 2011, Supervisor Greg Cox, and other city and civic leaders, announced the launch of a regional pilot project to combat graffiti. The goal of this pilot, the San Diego County Multi-Discipline Graffiti Abatement Program, was to utilize technology (*Graffiti Tracker*) to better document graffiti and identify and convict the most prolific offenders through a coordinated regional effort. To ensure that this project was documented and the region’s policy makers had a clear understanding of the usefulness of the system, SANDAG provided resources to conduct a process and outcome evaluation of this effort. This bulletin presents the results of this evaluation, including feedback from users, statistics from prosecution and restitution records, analyses of data from the *Graffiti Tracker* system, and recommendations for consideration should the pilot be continued.

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## EVALUATION HIGHLIGHTS

- A total of 82,482 graffiti incidents were documented in Graffiti Tracker across the region in 2011, which equates to about 226 incidents per day.
- Almost three-quarters (74%) of the graffiti in the region is described as tagging, as opposed to gang-related.
- The cost of removing this graffiti, which encompassed almost 619,000 square feet, is conservatively estimated at almost \$16 million.
- Survey feedback from system users across the region revealed that 94 percent would recommend continued use of the system by their jurisdiction.
- Between 2010 and 2011 the number of adults prosecuted for graffiti by the District Attorney or City Attorney increased by 33 percent. However, the number of juvenile cases decreased by 21 percent.
- Despite the fact that fewer graffiti cases were prosecuted in 2011 than 2010 overall, court-ordered restitution for these cases increased dramatically from \$170,626 in 2010 to \$783,412 in 2011, suggesting that regional information sharing may enable law enforcement to build stronger cases for prosecution.
- Some recommendations for consideration should this pilot continue is the need for more on-going regional coordination and communication, on-going training, and identification of secure funding to ensure regional participation.

## PROJECT OVERVIEW

*Graffiti Tracker* is a Web-based intelligence sharing and analysis service that allows photographs and locations of graffiti incidents to be submitted into a national database. Intelligence reports can then be generated that include information and statistics regarding the name or group monikers, location and size of incidents, trends or paths of damage, migration of vandals, and arrest information. According to law enforcement officials, systems such as *Graffiti Tracker* can enhance their ability to identify graffiti taggers and gather evidence for prosecution of multiple acts of vandalism, as well as provide expert analysis and intelligence toward identifying gang members and coded messaging and alerts to other illegal street gang activities.

Prior to January 2011, *Graffiti Tracker* was utilized by three law enforcement agencies in San Diego County: the Escondido Police Department (implemented in 2006), Oceanside Police Department (implemented in 2007), and San Diego County Sheriff's Department (implemented in 2009). The other municipal law enforcement agencies (Carlsbad, Chula Vista, Coronado, El Cajon, La Mesa, National City, and San Diego), as well as the Port of San Diego, and local public transit agencies (Metropolitan Transit System or MTS, and North County Transit District or NCTD) did not have a formal tracking system in place, although many tracked reports of graffiti from citizens.

When the pilot project began, the total cost of the system to the County and other new partners, including the transit agencies and Port of San Diego, was estimated at \$292,800. To facilitate this project, the County of San Diego executed an amendment to their contract with *Graffiti Tracker* that extended it through June 30, 2012, and added the other jurisdictions to the project. When Escondido and Oceanside, who had their own contracts with *Graffiti Tracker*, are included the total regional cost for the 18-month pilot period was \$346,800 (Table 1). This figure does not include the \$44,000 in

private donations<sup>1</sup> that were utilized to purchase cameras and replacement parts<sup>2</sup>.

**Table 1**  
**COST TO LOCAL AGENCIES FOR THE GRAFFITI TRACKER 18-MONTH PILOT PROJECT**

Carlsbad	\$7,875
Chula Vista	\$17,475
Coronado	\$1,800
El Cajon	\$7,350
Escondido <sup>1</sup>	\$36,000
La Mesa	\$4,275
MTS	\$7,500
National City	\$4,275
NCTD	\$7,500
Oceanside <sup>1</sup>	\$18,000
Port of San Diego	\$7,500
San Diego	\$101,250
Sheriff	\$126,000
<b>TOTAL</b>	<b>\$346,800</b>

<sup>1</sup>The Cities of Escondido and Oceanside already had their own contracts in place and were not part of the Sheriff's contract for the pilot period.

SOURCE: SANDAG and Agency Documentation, 2012

During the pilot, the contracting cities agreed to have assigned employees participate by reporting, documenting, and recording all acts of vandalism and submitting these reports to the appropriate law enforcement agency. In addition, members were responsible for setting up and managing their own abatement teams to remove any graffiti once it was documented. As a result of the three contracts (Escondido, Oceanside, and the Sheriff), the region's agencies were able to enter up to 24,000 cases per month or 288,000 annually, into the system.

<sup>1</sup> According to the County of San Diego, private donations were secured in the amount of \$44,000 from AT&T, SDG&E, and Cox Communications. These funds were used to provide eleven cameras to San Diego, four to Chula Vista, three to Carlsbad, two each to El Cajon, La Mesa, and National City, and one to Coronado.

<sup>2</sup> The two transit agencies and Port of San Diego also contributed an additional \$11,310 for the purchase of eight cameras for their use (4 for MTS, 2 for NCTD, and 2 for the Port).

## EVALUATION METHODOLOGY

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To determine if the anticipated benefits of *Graffiti Tracker* were realized, SANDAG conducted an evaluation to document how implementation varied across the region (e.g., who takes and submits the pictures, how graffiti is removed, how cases are prosecuted) and the effectiveness after regional implementation. To accomplish this, SANDAG worked closely with law enforcement personnel, staff members from the San Diego County District Attorney's Office and the City of San Diego City Attorney's Office, as well as 211 San Diego, *Graffiti Tracker*, and the County of San Diego's Auditor and Controller Office of Revenue and Recovery. The assistance of staff from these agencies is gratefully acknowledged.

### Process Evaluation

#### RESEARCH QUESTIONS

To better understand the nature of the graffiti issue in San Diego County and document the implementation of this pilot, answers to three process evaluation questions were researched

- What is the scope of the graffiti problem in the region?
- How did each of the jurisdictions in the region implement *Graffiti Tracker* and how did implementation vary?
- How did the jurisdictions view the *Graffiti Tracker* system?

#### DATA SOURCES

**Project Documentation:** To better understand program implementation, copies of all contracts and cost matrices were compiled. Cost matrices are used by jurisdictions as recommendations for the amount of restitution that should be ordered for each incident of graffiti. While there is variance across jurisdictions in how these costs are calculated, they typically consider the approximate square-footage of the damaged area and include costs related to paint,

brushes, rollers, liners, other paint supplies, vehicles, staff (field, supervision, and office) charges including benefits, safety equipment and uniforms, administrative fees (e.g., cell phones, computer equipment, office supplies, building and other equipment), and shop overhead (i.e., for the area where supplies are stored and staff meet).

**Graffiti Tracker:** As part of this pilot, SANDAG had access to the *Graffiti Tracker* system and was able to run reports and also download data for analysis and mapping purposes. Data that were compiled from the system included the date the graffiti incident was documented; location of the incident; the tagger, tagging crews, or gang responsible for the incident if available; the type of graffiti; and the size of the damage (in terms of square footage).

**211 San Diego:** On a monthly basis, SANDAG received data downloads from 211 San Diego that documented all calls their agency received that pertained to graffiti. 211 San Diego is a free 24-hour information and referral service available by dialing 2-1-1. Specialists are on-call to connect people to community, health, public safety, and disaster services. Information available from this system included the location of the graffiti, the type of property, and where the individual reporting the incident was referred.

**Pre- and Post-Implementation Survey:** During the course of the evaluation, pre- and post-implementation surveys were conducted. The pre-survey was distributed in April 2011 to one individual at each of the implementing law enforcement agencies. The purpose of this survey was to gain a better understanding of how graffiti and tagging was handled prior to the pilot project and help guide further evaluation efforts. A total of 26 surveys were distributed, with 25 surveys returned, representing a 96 percent response rate.

The post-survey was distributed in March 2012 to all staff at the law enforcement and any other municipal agency that had used the system. Overall, a total of 109 individuals were invited to participate in the survey, and completed surveys were returned by 80, a 73 percent response rate. While this response rate was lower than the first survey, it is worth noting that at least one survey was returned from each of the participating agencies<sup>3</sup>. Three-quarters (75%) of the respondents represented law enforcement, with the other quarter (25%) representing public works or general services, parks and recreation, code enforcement, transit, or city administration. More than four in every five (83%) respondents said they were still involved in the pilot project at the administration of the survey. Questions on the post-survey pertained to ease and helpfulness of different system components, how tasks were fulfilled within different jurisdictions, and what recommendations users would have if the pilot was continued.

## Impact Evaluation

### RESEARCH QUESTIONS

To determine if the expected outcomes were realized, two impact evaluation questions were addressed, based on the data available that could be compared over time for the jurisdictions<sup>4</sup>

- Were cases more successfully prosecuted in 2011 than they were in 2010?
- Was more restitution ordered for cases in 2011, compared to 2010?

<sup>3</sup> Ten surveys each were returned by National City and Oceanside, eight by San Diego, seven by Encinitas/Del Mar/Solana Beach, six by Chula Vista, five each by Coronado, Escondido, and the Port of San Diego, three each by El Cajon, Fallbrook, and Poway/45 Ranch, two each by La Mesa and Vista, and one each by Carlsbad, Imperial Beach, Julian, Lemon Grove/Spring Valley, MTS, NCTD, Ramona, San Marcos, Santee, Sheriff's administration, and Valley Center/Pauma.

<sup>4</sup> While the original intention was to compare more statistics over time, this was not possible because data regarding the number of graffiti incidents was not as reliably documented prior to the start of the pilot.

## DATA SOURCES

**Prosecution Data:** Due to issues with reliable documentation prior to the implementation of the pilot (i.e., vandalism includes graffiti as well as other incidents), SANDAG worked closely with District Attorney and City Attorney staff to run prosecution-related statistics for 2010 and 2011 using consistent methodology. However, it is important to note the actual numbers here could still be an underestimate. For the adult cases accepted for prosecution, DA staff selected cases that included one of six crime codes (CVMC 9.20.030(b), PC 594(a)(b)(2)(B), PC 594.2(a), PC 594.7, PC 640.5(a)(1), and SDMC 54.0405(b)) listed on the complaint. In addition, if a case did not have a specific graffiti charge, but did include the word "graffiti," "tagging" or "tagged" in the statement of the case, it was included. For the juvenile data, a case was selected if it was assigned to the Juvenile Graffiti Division of the District Attorney's Office or it was marked as being part of the *Graffiti Tracker* system.

**Revenue and Recovery Data:** To better understand if cases were more successfully prosecuted after the implementation of *Graffiti Tracker*, staff from the local prosecutors office shared case information with the County of San Diego's Office of Revenue and Recovery, a division within the San Diego County's Auditor and Controller's Department that has direct responsibility for managing the collection of debts as a result of court ordered debt for felony probation as well as the payment for services rendered by county departments. Through their assistance, data was provided as of December 31, 2011 regarding juvenile and adult felony cases that had been successfully prosecuted for a graffiti-related charge and resulted in a court order that restitution be paid.

## PROCESS EVALUATION RESULTS

### Scope and Nature of Graffiti in San Diego County

#### NUMBER OF GRAFFITI INCIDENTS

According to the “Broken Windows Theory,” physical disorder such as graffiti and tagging that is left ignored in a neighborhood can cause an increase in crime, because criminals will perceive the neglect as indifference on the part of residents, and therefore the community, as an easy target for committing crime. Determining the number of incidents of graffiti historically is difficult, however, because there is no specific penal code for graffiti/tagging, not all incidents of graffiti/tagging or vandalism are reported to law enforcement, and not all acts of graffiti result in a crime report being completed. Furthermore, prior to this pilot project, the methods used to document the number of graffiti incidents varied across jurisdictions and in general, were not captured in a reliable manner. Therefore, the focus here will be on those incidents of graffiti that occurred during calendar year 2011.

During 2011, the first 12 months of the pilot project, a total of 82,482 incidents of graffiti/tagging were entered into *Graffiti Tracker* by local jurisdictions/departments, 29 percent of the number of the maximum number contracted for. According to *Graffiti Tracker* staff, each of the entries into the system represented an independent incident, and even if one large image required several pictures to be captured in its entirety, it would only be captured once. As Table 2 shows, the greatest number of incidents were entered by the City of San Diego (22,563), followed by those that occurred in Vista (15,124), Escondido (7,863), Oceanside (5,811), and National City (5,025). Sheriff’s contract cities and the unincorporated areas entered a total of 28,035 incidents and it is worth noting that the three original departments entered just over half (51%) of all of the 2011 incidents, even though they represented only 38 percent of the County’s population (not shown), possibly reflecting a better familiarity and comfort level with using this technology.

Maps 1 through 5 provide a geographical representation of where these incidents were located around the region. Specifically, Map 1 shows the percent of *Graffiti Tracker* incidents located in each jurisdiction and Map 2 presents the number of incidents by police/sheriff beat. Maps 3, 4, and 5 show the results of “hot spot” analysis in which Census blocks were used to determine those areas with the highest density of graffiti that are also in close proximity to other areas with a high density of graffiti, as reflected by the darker shade(s) of red. As these show, in the north map of the County, hot spots exist in Carlsbad, Encinitas, Escondido, Fallbrook, Oceanside, Vista, and San Marcos; and in the south map of the County, the areas with the greatest amount of concentrated activity are located in Chula Vista, El Cajon, Imperial Beach, La Mesa, Lemon Grove, National City, San Diego, Santee, and Lemon Grove.

**Table 2**  
**NUMBER OF GRAFFITI INCIDENTS**  
**ENTERED IN GRAFFITI TRACKER BY**  
**JURISDICTION, 2011**

Carlsbad	473
Chula Vista	3,592
Coronado	36
El Cajon	4,412
Encinitas <sup>1</sup>	1,751
Escondido	7,863
Imperial Beach <sup>1</sup>	1,737
La Mesa	2,066
Lemon Grove <sup>1</sup>	915
MTS	811
National City	5,025
NCTD	7
Oceanside	5,811
Port of San Diego	1,788
Poway <sup>1</sup>	322
San Diego	22,563
San Marcos <sup>1</sup>	4,589
Santee <sup>1</sup>	1,178
Solana Beach <sup>1</sup>	339
Vista <sup>1</sup>	15,124
Unincorporated <sup>1</sup>	2,080
<b>TOTAL</b>	<b>82,482</b>

<sup>1</sup> Cities/areas served by the Sheriff’s Department.

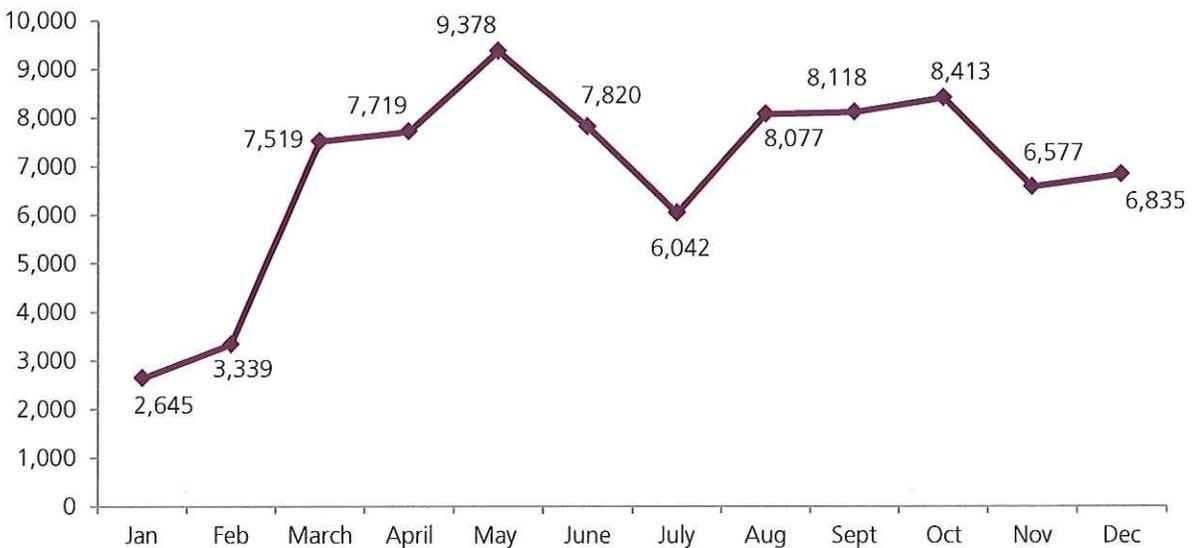
SOURCE: SANDAG and Graffiti Tracker System Download, 2012

Demonstrating the start-up time associated with any large scale effort, while all of the original participating agencies (Escondido, Oceanside, Sheriff) entered incidents into the system in January, none of the ten pilot jurisdictions did. Rather, four began entering in February, four in March, one in April, and one in August (not shown). With this background, it is not surprising that the number of incidents

entered into *Graffiti Tracker* increased the first five months of the year, peaking in May at 9,378 documented incidents, and then varying from 6,042 (July) to 8,413 (October) the remaining seven months of the year (Figure 1).

**Figure 1**

**NUMBER OF INCIDENTS ENTERED INTO GRAFFITI TRACKER BY MONTH, 2011**



SOURCE: SANDAG and Graffiti Tracker System Download, 2012

Another source of information regarding graffiti around the region was calls placed to 211 San Diego. For the 15-month period between January 2011 and March 2012, 211 San Diego received a total of 139 reports of unduplicated graffiti incidents. Perhaps unsurprisingly, about half (53%) of these incidents were reported soon after the kick-off event for this pilot project, during the first three months of 2011. About one-quarter (24%) were reported during the next three months (April – June 2011), and the other quarter (23%) over the remaining nine months, suggesting the need for more community outreach to encourage

reporting. In further analyzing where these incidents had occurred, 62 percent were from the City of San Diego, 11 percent from El Cajon, 10 percent Chula Vista, and the rest from Escondido, Bonita, Spring Valley, La Mesa, Carlsbad, Encinitas, Lakeside, National City, Oceanside, Ramona, San Marcos, and Vista. Just under half (47%) were reported as graffiti or tagging at a private property, 42 percent at a public location, and 11 percent were not sure if the area was private or public (not shown).

## TYPE OF GRAFFITI

In general, tagging and gang-related graffiti are the most prevalent types of graffiti. However, the two differ in a number of ways. Specifically, tagging is primarily an activity in which fame and notoriety are the main goals, and taggers often seek to put their “tag” in hard-to-reach places as frequently as possible and in an artistic way. Gang graffiti, on the other hand, serves as a medium for on-going dialogue between rivals to create and identify particular enemies (e.g., crossing out rival members’ names, disrespectful tags, overt threats and challenges) or to strengthen alliances among fellow gang members (e.g., honoring dead members, listing all members’ gang names in a “roll call”).

According to analysis by *Graffiti Tracker* of these pictures, almost three-quarters (74%) of the graffiti entered into *Graffiti Tracker* was described as tagging, 16 percent as gang-related, and the type could not be determined in 10 percent. However, as Table 3 shows, there was variation in these breakdowns by jurisdiction, ranging from 2 percent of the graffiti incidents in Vista described as gang-related, compared to 52 percent in San Marcos<sup>5</sup>. Maps 6 and 7 show where gang-related and tagging incidents documented in *Graffiti Tracker* were located across the region.

Of the 12,840 gang-related graffiti incidents, 59 percent were described as being done for the purpose of publicity, 28 percent for roll call (with a list of monikers), 13 percent involved a threat, and 1 percent were related to sympathy for fallen gang members or marking territory (not shown).



Picture of a graffiti incident documented by MTS. This individual, who was arrested in June 2011, was identified as being responsible for three incidents.

<sup>5</sup> It is important to note that these analyses were conducted by *Graffiti Tracker* and were not validated as part of this evaluation. In addition, these patterns of data could reflect true differences in the nature of the graffiti in different jurisdictions or alternatively, differences in the photos that were taken and entered into the system (e.g., a jurisdiction was more likely to take a gang versus a tagging photo or vice versa due to limited resources).

**TABLE 3**  
**GRAFFITI TYPE BY JURISDICTION, 2011**

	Gang-Related	Tagging	Unknown
Carlsbad	19%	70%	11%
Chula Vista	15%	72%	13%
Coronado	11%	58%	31%
El Cajon	9%	82%	9%
Encinitas <sup>1</sup>	18%	66%	16%
Escondido	11%	84%	5%
Imperial Beach <sup>1</sup>	25%	66%	9%
La Mesa	4%	75%	21%
Lemon Grove <sup>1</sup>	23%	67%	11%
Oceanside	4%	89%	7%
Poway <sup>1</sup>	47%	36%	17%
San Diego	22%	70%	8%
San Marcos <sup>1</sup>	52%	36%	12%
Santee <sup>1</sup>	10%	66%	24%
Solana Beach <sup>1</sup>	19%	45%	37%
Vista <sup>1</sup>	2%	83%	14%
MTS	13%	66%	21%
National City	16%	79%	5%
NCTD	14%	71%	14%
Port of San Diego	22%	61%	17%
Unincorporated <sup>1</sup>	15%	70%	15%
<b>TOTAL</b>	<b>16%</b>	<b>74%</b>	<b>10%</b>

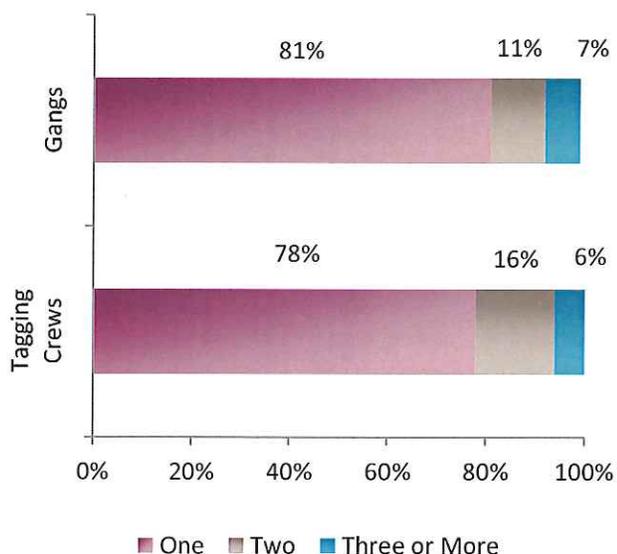
<sup>1</sup>Cities/areas served by the Sherriff's Department.

SOURCE: SANDAG and Graffiti Tracker System Download, 2012

### MOST COMMON TAGGERS AND GANGS

A report function in *Graffiti Tracker* enables users to document the most common tagging crews, as well as the gangs in each jurisdiction and for the region overall. Analysis of these reports for this evaluation helps to shed some light on how many tagging crews and gangs may be responsible for graffiti in different jurisdictions of the county<sup>6</sup>. In terms of tagging, a total of 170 different crews were identified as “most active” for the different jurisdictions, as were a total of 70 gangs. As Figure 2 shows, while about four in five of each group were only identified as being “most active” in one jurisdiction, the other one-fifth were noted as being primarily responsible for the majority of graffiti in more than one jurisdiction.

**Figure 2**  
**PERCENT OF TAGGING CREWS AND GANGS ACTIVE IN ONE OR MORE JURISDICTIONS**



SOURCE: SANDAG and Graffiti Tracker System Download, 2012

<sup>6</sup> In interpreting this information, it is important to note that this may be an underrepresentation of cross-jurisdictional activity because no assumptions were made about similar crew/gang names actually representing the same group and because the analysis was based on the most common/active groups and not all groups overall.

### COST OF GRAFFITI CLEAN-UP

Further analysis by SANDAG staff of the 82,482 instances that included latitude/longitude data and removing duplicate cases (locations where multiple incidents may be but require only one clean-up) revealed a total of 57,737 unique cases, or primary incidents. The total square footage of these incidents was 618,851 square feet, with two-thirds (67%) representing areas less than 10 square feet and the other third of the areas (33%) between 10 and 2,100 square feet (not shown). As Table 4 shows, San Diego led the jurisdictions with the greatest amount of documented damage over the 12-month period (129,639), followed by Escondido (80,201), Vista (65,340), San Marcos (58,878), and Oceanside (51,460).

**Table 4**  
**SQUARE FOOTAGE OF GRAFFITI DAMAGE BY JURISDICTION, 2011**

Carlsbad	5,973
Chula Vista	46,189
Coronado	88
El Cajon	36,111
Encinitas <sup>1</sup>	24,395
Escondido	80,201
Imperial Beach <sup>1</sup>	19,341
La Mesa	9,041
Lemon Grove <sup>1</sup>	7,729
MTS	2,585
National City	44,375
NCTD	6
Oceanside	51,460
Port of San Diego	4,724
Poway <sup>1</sup>	2,401
San Diego	129,639
San Marcos <sup>1</sup>	58,878
Santee <sup>1</sup>	12,214
Solana Beach <sup>1</sup>	2,638
Vista <sup>1</sup>	65,340
Unincorporated <sup>1</sup>	15,523
<b>TOTAL</b>	<b>618,851</b>

<sup>1</sup> Cities/areas served by the Sherriff's Department.  
SOURCE: SANDAG and Graffiti Tracker System Download, 2012

To determine a conservative estimate of how much it cost the region to remove this graffiti, information from the jurisdictions' cost matrices were aggregated to compute a regional average. As Table 5 shows, the cost to clean graffiti that was less than 10 square feet averaged \$267, but varied considerably across jurisdictions, from \$56 in Del Mar/Encinitas/Solana Beach to \$453 in Oceanside. The next cost category, for incidents 10 to 29 square feet had a regional average of \$294. Considering these costs, and the square footage previously described, it cost the region almost \$16 million (\$15,934,881) to remove this graffiti (not shown).

**Table 5**  
**COST OF GRAFFITI REMOVAL BY JURISDICTION**

	< 10 SF	10 - 29 SF
Chula Vista <sup>1</sup>	\$292	\$319
Coronado <sup>1</sup>	\$188	\$241
Del Mar/Encinitas/ Solana Beach <sup>2</sup>	\$56	\$56
El Cajon	\$288	\$385
Escondido	\$199	\$207
Imperial Beach <sup>1, 2</sup>	\$383	\$394
La Mesa	\$91	\$122
Lemon Grove <sup>2</sup>	\$228	\$241
National City	\$395	\$405
Oceanside	\$453	\$453
San Diego <sup>1</sup>	\$247	\$279
San Marcos <sup>1, 2</sup>	\$263	\$277
Vista <sup>2</sup>	\$433	\$438
<b>REGIONAL AVERAGE</b>	<b>\$267</b>	<b>\$294</b>

<sup>1</sup>These cities used different estimates for the cost of painting over graffiti versus spray washing it. The numbers shown here represent the average of the two.

<sup>2</sup>These Cities/areas served by the Sheriff's Department.

NOTE: All figures represent the most current when obtained mid-year 2011. The San Diego Unified Port District, rural areas and Poway/4S Ranch served by the Sheriff did not utilize a cost matrix during the pilot project period.

SOURCE: SANDAG and Local Agency Documentation, 2012



Picture of a graffiti incident by the most active tagger in the City of Escondido, responsible for 187 incidents in *Graffiti Tracker*. This individual was arrested in April 2012.

## Jurisdictions' Response to Graffiti

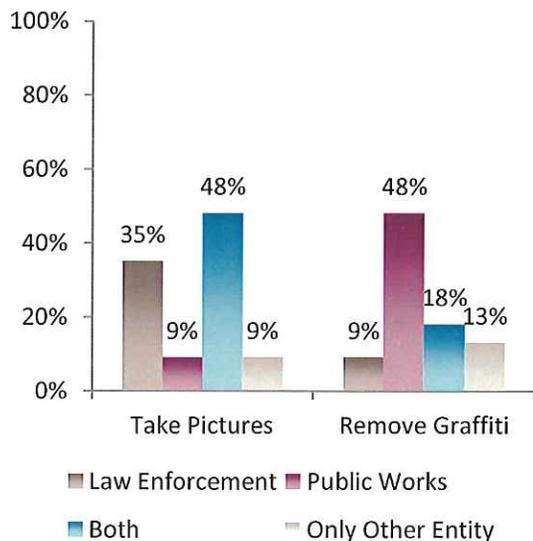
There are a variety of tasks associated with tracking, documenting, and removing graffiti. As part of the post-implementation survey, respondents were asked if law enforcement, public works, another entity (e.g., volunteers, a private contractor), or some combination were responsible for taking the pictures to be entered into *Graffiti Tracker* and removing the graffiti. As Figure 3 shows<sup>7</sup>, there was considerable variation in the processes utilized across the jurisdictions. In terms of taking pictures, almost half (48%) reported that it was a shared responsibility between law enforcement and public works, just over one-third (35%) that it was the responsibility of law enforcement, and 9 percent each that it was the responsibility of public works or another entity, such as a volunteer or private contractor<sup>8</sup>. In comparison, public works was responsible for removing the graffiti in almost half of the jurisdictions (48%), with others reporting removal was a responsibility shared by law enforcement and public works (18%), another entity (13%), or law enforcement (9%)<sup>9</sup>.

<sup>7</sup> Data from the 80 surveys for this question were collapsed so that only one answer for the 23 different jurisdictions are presented, including the two original cities, the 10 pilot jurisdictions, and 11 of the jurisdictions served by the Sheriff's Department.

<sup>8</sup> Another 35 percent of those who reported law enforcement, public works, or both took pictures also noted that on some occasions another entity would fulfill this obligation.

<sup>9</sup> Another 48 percent of those who reported law enforcement, public works, or both cleaned up the

**Figure 3**  
**GRAFFITI-RELATED RESPONSIBILITIES BY**  
**ENTITY REPORTED BY JURISDICTIONS**



SOURCE: SANDAG and Post-Implementation User Survey, 2012

When all of the respondents were asked to rate the level of inter-department coordination within their jurisdiction as part of this project, 27 percent described it as “excellent,” 58 percent as “good,” 6 percent as “fair,” 8 percent as “poor,” and 2 percent as “extremely poor” (not shown). While the decision for who fulfills different roles and responsibilities is most likely guided by a variety of factors in each jurisdiction, these results, coupled with the diversity in how roles are divided suggests opportunity for information sharing across different agencies for how coordination can be most effective and duplication of efforts avoided.

graffiti also noted that on some occasions another entity would fulfill this obligation.

## JURISDICTIONS’ OPINIONS OF GRAFFITI TRACKER

As part of the post-implementation survey, regional users were also asked to describe the usefulness of the training and technical assistance they received, the ease and helpfulness of different system components, and their level of initial and subsequent enthusiasm for the system.

### TRAINING AND TECHNICAL ASSISTANCE

Around two-thirds (65%) of the survey respondents reported that they had received some type of formal training on the *Graffiti Tracker* system, most often from *Graffiti Tracker* staff (75% of the 51 who had received training), but also from a local law enforcement agency (34%) and the District Attorney’s Office (22%). When asked to describe how helpful this training was, over half (59%) described it as “very useful,” 35 percent as “somewhat useful,” and 6 percent as “not very useful.” When asked to describe what could have made the training more helpful, respondents noted that the initial training was too long ago and should have been followed up with more on-going training opportunities, it was too large and should have been held in smaller sessions, and more hands-on training would have been helpful (not shown).

In addition, around four in five of the respondents (81%) also noted that formal technical assistance from *Graffiti Tracker* would have been useful, especially training related to the cameras and synching them with the GPS and being able to generate reports. Only about two in five (42%) said they had sought technical support or assistance from *Graffiti Tracker*, but of those who had, three-quarters (75%) rated the support they received as “very helpful” (with 22% describing it as “somewhat helpful” and 3% as “not very helpful”) (not shown). Comments provided by users regarding *Graffiti Tracker* staff referred to their responsiveness, knowledge, and willingness to help. For example, one user noted “They are very helpful and really know their product. They have been able to walk me through any of the problems I’ve had.”



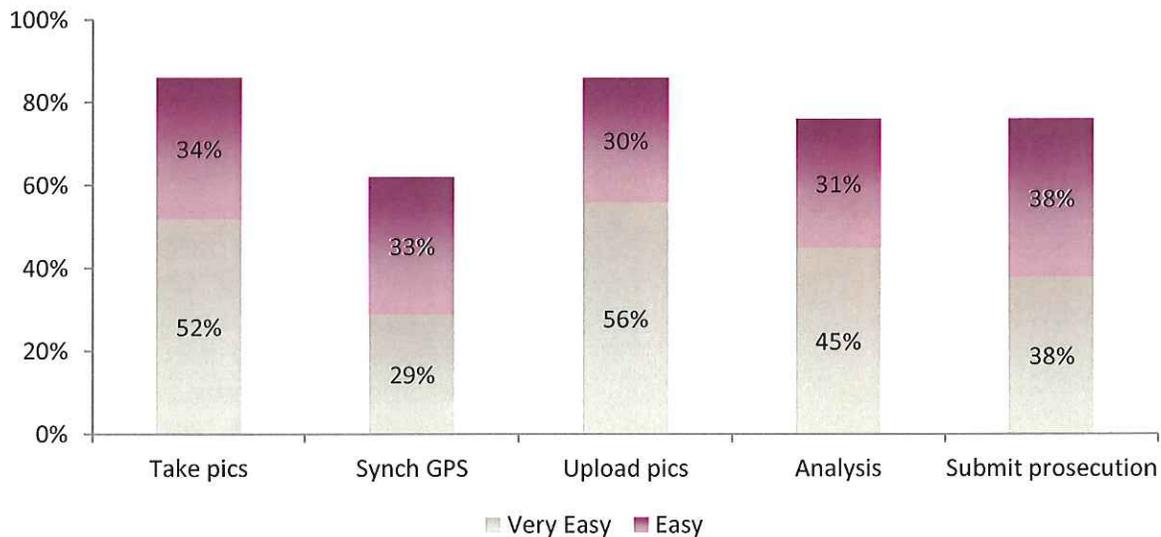
Picture of a graffiti incident by a tagger in the City of Lemon Grove, responsible for 17 incidents. This individual was arrested in June 2011.

### EASE AND HELPFULNESS OF DIFFERENT COMPONENTS

To better understand what factors could possibly contribute to a reluctance to use the system, survey respondents were asked to rate how easy different system components were on a four-point scale from “very easy” to “not easy.” As Figure 4 shows, individuals who were familiar with taking pictures and uploading them were most likely to report these features were “very easy” to use. In addition, just under half (45%) gave the report and analysis components the highest rating possible. However, only 38 percent described the process for submitting cases for prosecution via the *Graffiti Tracker* system and only 29 percent described the process for synching GPS on the cameras as “very easy,” suggesting the need for further training and assistance for these components. For example, one user noted that “The program itself is awesome, but the time and phone calls we have spent trying to get the cameras to synch with the GPS has been beyond frustrating. My entire team feels the same way and have often reverted to using their own cellular phones to take the photos instead of the *Graffiti Tracker* cameras.”

**Figure 4**

#### EASE OF DIFFERENT GRAFFITI TRACKER COMPONENTS AND FUNCTIONS



SOURCE: SANDAG and Post-Implementation User Survey, 2012

When asked to provide additional information regarding the two most helpful reports and analysis features in *Graffiti Tracker*, around two-thirds each noted they found the ability to see the most active monikers and most active taggers/gangs (67% and 64%, respectively) as most helpful. In terms of the three other report/analysis features, 29 percent described the total damage report as most helpful, 25 percent gave this rating to the total incident report, and 7 percent gave it to the camera activity overview report (not shown). Some feedback provided by users regarding how the report and analysis functions could be made more useful referred to the ability to link tagging crews/gangs that have several tags associated with them. In addition, they felt having the ability to design or filter information rather than relying on pre-made reports that may take a long time to upload would be helpful.

#### OVERALL VIEWS OF THE SYSTEM

When survey respondents were asked to describe how enthusiastic they felt about using the *Graffiti Tracker* system before the pilot project began, more than nine in every ten users described themselves as “very enthusiastic” (49%) or “somewhat enthusiastic” (42%) (not shown). Interestingly, when asked to describe how they felt after having used the system, the ratings were identical, suggesting the system met the expectations the users had.

When asked to describe what they liked best about *Graffiti Tracker*, the ability to better organize and maintain photographs was noted by around three-quarters (76%) of survey respondents followed by the ability to better monitor the most active taggers (47%) and improve the likelihood of making an arrest (41%) (Table 6).

**TABLE 6**  
**MOST USEFUL ASPECTS OF GRAFFITI TRACKER**

Ability to organize photos	76%
Ability to monitor most active taggers	47%
Improved likelihood of arrest	41%
Improved likelihood of prosecution	38%
Ability to monitor most active gangs	35%
Ability to run reports	20%
<b>TOTAL</b>	<b>66</b>

SOURCE: SANDAG & Post-Implementation User Survey, 2012

The following quotes, extracted directly from the surveys, provide some additional insight into how users across the region feel about the system

- “I like the idea of having a consistent way of documenting graffiti.”
- “Anything that saves time and man hours is a great selling point.”
- “It has been a great tool for investigations.”
- “I liked the idea of a coordinated system that would allow for increased prosecution and understanding among cities, law enforcement and the DA.”
- “It was a better way of tracking graffiti. It made running cost recovery so much easier.”
- “I think any technology that helps improve our lives and saves us time is very beneficial.”
- “The manner in which we were tracking graffiti was very antiquated and time consuming.”
- “Much easier to research all incidents of graffiti conducted by each individual tagger than having to read through all crime reports and figure out a way to categorize for future reference.”
- “It is a great program that has helped free up my investigators and proven to be effective in arrests and prosecutions.”

- “Means of centralizing all data into one system regionally.”
- “Initially, I thought that this was just a GPS camera and that the same could be accomplished with any GPS camera. I soon learned of the value of the program because of its ability to put together reports and intelligence. Also, the warning messages from *Graffiti Tracker* when threats are painted up is invaluable.”
- “I love the idea of an easier method to track taggers and their locations. The idea that all the time and costs that go into graffiti removal can be reimbursed is awesome.”



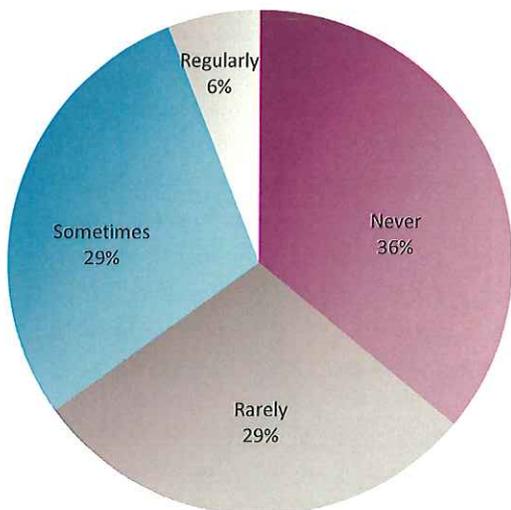
*Picture of a graffiti incident by the most active tagger in the City of San Diego, responsible for 124 incidents in *Graffiti Tracker*. This individual was arrested in February 2012.*

However, despite these consistently high ratings and positive feedback, about one in three (38%) of the respondents reported that they felt their agency had not used *Graffiti Tracker* to its full potential during the pilot period. When asked why they thought *Graffiti Tracker* had not been implemented to its full potential, the 22 respondents noted that there was not enough staff (59%), roles and responsibilities were not clearly understood (50%), there were not enough cameras (32%), there were not enough training (27%), and that the cameras did not operate correctly (14%) (not shown).

Another area for possible improvement, should the pilot continue, is in the area of cross-jurisdictional communication. As Figure 5 shows, over half of the survey respondents reported that they never (36%) or rarely (29%) communicated with other agencies during the pilot regarding the use of *Graffiti Tracker*, and almost nine in ten (88%) agreed that more communication with other jurisdictions would have been useful (not shown). When asked how more communication would be helpful, responses tended to focus on the ability to share tips on how the system could best be used and troubleshoot issues, as well as sharing intelligence to maximize the potential for multi-jurisdictional arrests. As one user explained, “More communication to discuss trends, arrests, and investigation techniques would help increase overall arrests.”

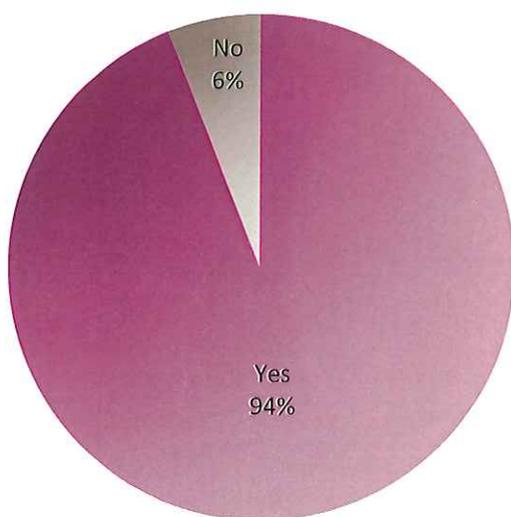
Despite these areas mentioned for increased focus or resources, 94 percent of the survey respondents said that they would personally recommend the continued use of *Graffiti Tracker* in their region (Figure 6). However, one in three (33%) did note that if it did continue, some program modifications should be considered (not shown). Specifically, these modifications most often related to the need for cameras with GPS ability in one unit, having more clearly defined roles and protocols (e.g., related to cost recovery) within jurisdictions, the need for more on-going hands-on training, and the need for more regional information sharing through electronic means, as well as in-person meetings.

**Figure 5**  
**FREQUENCY OF CROSS-JURISDICTIONAL COMMUNICATION REPORTED BY GRAFFITI TRACKER USERS**



SOURCE: SANDAG and Post-Implementation User Survey, 2012

**Figure 6**  
**USERS' OPINION ON WHETHER GRAFFITI TRACKER SHOULD CONTINUE TO BE USED**



SOURCE: SANDAG and Post-Implementation User Survey, 2012

## IMPACT EVALUATION RESULTS

### Cases Prosecuted

To determine if more cases were prosecuted by the District Attorney and San Diego City Attorney's Office in 2011, compared to 2010, data were compiled by these offices as previously described. With these data, analyses were conducted to determine if more cases were prosecuted, if there was a change across all of the jurisdictions, and what the outcomes of these cases were.

### Juvenile Cases

As Table 7 shows, the number of juveniles prosecuted for a graffiti-related offense declined from 405 in 2010 to 318 in 2011, a decrease of 21 percent. Interestingly, the overall number of cases declined over the year for the original jurisdictions (205 to 154), although the numbers were up slightly for Oceanside, as well as the new pilot jurisdictions and other departments, overall (173 and 27 versus 144 and 20). In terms of these cases, the highest or most serious charge was most often malicious mischief 73 percent in 2010 and 78 percent in 2011. However, of these cases, a greater percentage resulted in an admission of guilt or a true finding in 2011. Specifically, in 2010, just under two-thirds (65%) of these cases resulted in a true finding, compared to 72 percent in 2011 (not shown).

When local prosecutors were informally asked about this difference they attributed the change to the use of *Graffiti Tracker* and the ability to build stronger cases with multiple documented incidents of graffiti, rather than just one or two.

**Table 7**  
**NUMBER OF JUVENILE GRAFFITI CASES**  
**PROSECUTED BY JURISDICTION AND**  
**YEAR**

	2010	2011
<b>Original Jurisdictions/Departments</b>		
Escondido	72	45
Oceanside	19	27
Sheriff's Department	114	82
<b>Total</b>	<b>205</b>	<b>154</b>
<b>New Pilot Jurisdictions/Departments</b>		
Carlsbad	2	0
Chula Vista	29	24
El Cajon	26	26
La Mesa	7	6
MTS	1	3
National City	6	5
Port of San Diego	3	2
San Diego	99	78
<b>Total</b>	<b>173</b>	<b>144</b>
<b>Other Departments</b>		
College/University Police	1	0
School	22	17
Probation	4	3
<b>Total</b>	<b>27</b>	<b>20</b>
<b>TOTAL</b>	<b>405</b>	<b>318</b>

*SOURCE: SANDAG and County of San Diego District Attorney's Office, 2012*

## ADULT CASES

While the number of juveniles prosecuted for graffiti decreased during the pilot project period, the number of adults prosecuted actually increased. As Table 8 shows, for adult cases prosecuted by the San Diego County District Attorney's Office, there was a 34 percent increase from the numbers prosecuted in 2010 (133), compared to 2011 (178). In addition, this increase was seen for both the original jurisdictions (which increased from 51 to 69) and the new jurisdictions (which increased from 82 to 108). Similar to juveniles, for both years, the highest (or most serious) charge was malicious mischief for 86 percent and almost all resulted in a felony (50% and 51%) or misdemeanor/infraction conviction (48% and 42%) (not shown).

Similarly, the number of cases prosecuted by the City Attorney as misdemeanors that involved adults increased from 63 in 2010 to 82 in 2011. The majority of these cases were also malicious mischief (97% and 96%) and more than four in five resulted in a conviction or guilty plea (90% and 84%) (not shown).

**Table 8**  
**NUMBER OF ADULT FELONY-LEVEL GRAFFITI CASES PROSECUTED BY THE DISTRICT ATTORNEY BY JURISDICTION AND YEAR**

	2010	2011
<b>Original Jurisdictions/Departments</b>		
Escondido	7	8
Oceanside	9	17
Sheriff's Department	35	44
<b>Total</b>	<b>51</b>	<b>69</b>
<b>New Pilot Jurisdictions/Departments</b>		
Carlsbad	1	0
Chula Vista	10	22
Coronado	0	1
El Cajon	8	14
La Mesa	2	1
MTS	4	8
National City	2	8
San Diego	55	54
<b>Total</b>	<b>82</b>	<b>108</b>
<b>Other Departments</b>		
College/University Police	0	1
<b>TOTAL</b>	<b>133</b>	<b>178</b>

SOURCE: SANDAG and County of San Diego District Attorney's Office, 2012

## Court-Ordered Restitution

Another key question addressed as part of this evaluation is whether *Graffiti Tracker* enables law enforcement to build stronger cases, which were more likely to result in more cases involving restitution orders, and in turn, more restitution paid to jurisdictions tasked with the cost of graffiti/tagging removal. Statistics regarding restitution from criminal felony-level cases for both juvenile and adult offenders were provided by the County of San Diego’s Auditor and Controller, Office of Revenue and Recovery<sup>10</sup>.



Picture of one of the most active gang monikers documented in the City of San Diego. This individual was arrested in October 2011.

<sup>10</sup> It should be noted that while the focus of the data collection for this evaluation was on court-ordered restitution, the City of Escondido is unique in that it also generates demand letters to parents through its City Attorney’s Office when a juvenile is identified as having caused graffiti damage to city property that would cost \$1,000 or more to remove. In these cases, parents may pay all or partial restitution before the court process is even begun, further increasing the amount of payments that are received to offset the cost of clean-up.

## JUVENILE CASES

Statistics were provided by the Office of Revenue and Recovery for 62 juvenile graffiti cases in 2010 and 126 in 2011<sup>11</sup>. As Table 9 shows, the number of juvenile cases that resulted in restitution being ordered increased 103 percent in 2011, compared to 2010.

To determine if the amount of restitution ordered in each year also increased, the average amount per case (Figure 7) and the total amount ordered (Figure 8) were compared for 2010 and 2011, as well as by type of jurisdiction (original versus new/other). As Figure 7 shows, the average amount of restitution ordered was greater in 2011 (\$2,344), compared to 2010 (\$1,592), overall, as well as by jurisdiction type (\$3,702 versus \$2,443 for original jurisdictions and \$985 versus \$623 for new/other jurisdictions). Because this average amount was higher, and more cases were also prosecuted in 2011, the total amount of restitution ordered was also higher overall, as well as for both of the jurisdiction types. These differences are noteworthy and should continue to be tracked if this effort proceed beyond the end of the pilot period<sup>12</sup>.

<sup>11</sup> Cases that originated outside San Diego County or could not be linked to one of the agencies tracked here were excluded from the analysis.

<sup>12</sup> The amount of restitution paid could not be reliably calculated since the data could not be extracted from the County database across years in equitable timeframes (e.g., 3 or 6 months) for valid comparisons to be made. However, it is interesting to note that the amount of restitution paid in 2010 for these juvenile cases represented 57 percent of what was ordered. Therefore, if more restitution was ordered in 2011, it is reasonable to assume a greater amount would also be paid if proportions remain constant.

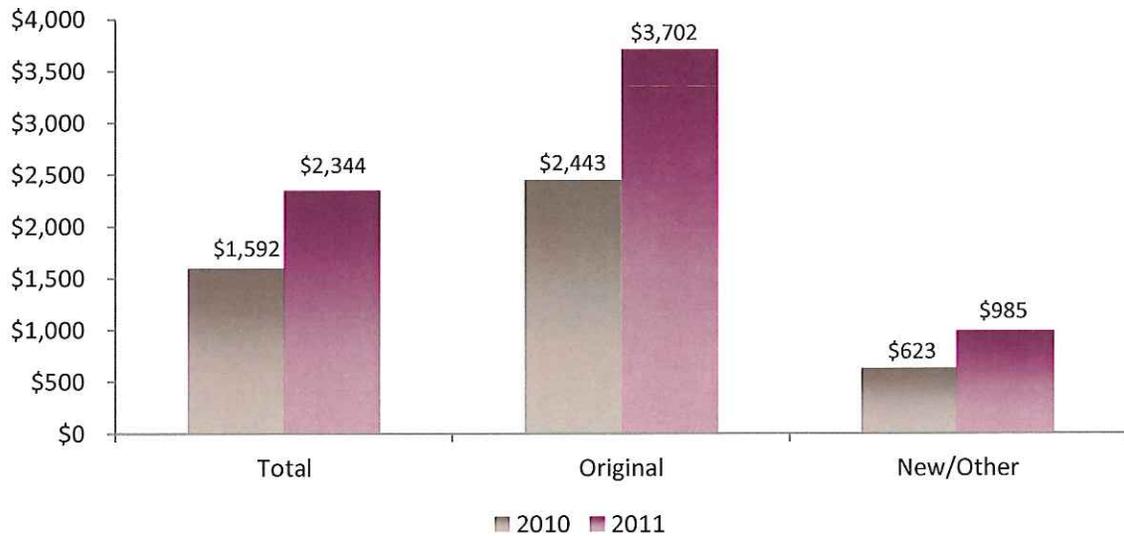
**Table 9**  
**NUMBER OF JUVENILE GRAFFITI/TAGGING CASES THAT RESULTED IN RESITUTION ORDERED BY JURISDICTION AND YEAR**

	2010	2011
<b>Original Jurisdictions/Departments</b>		
Escondido	15	19
Oceanside	4	10
Sheriff's Department	14	34
<b>Total</b>	<b>33</b>	<b>63</b>
<b>New Pilot Jurisdictions/Departments</b>		
Carlsbad	1	0
Chula Vista	4	8
El Cajon	4	6
La Mesa	1	2
MTS	0	2
National City	0	2
Port of San Diego	0	1
San Diego	16	33
<b>Total</b>	<b>26</b>	<b>54</b>
<b>Other Departments</b>		
College/University Police	0	1
School District Police	3	7
Probation	0	1
<b>Total</b>	<b>3</b>	<b>9</b>
<b>TOTAL</b>	<b>62</b>	<b>126</b>

SOURCE: SANDAG and County of San Diego Auditor and Controller's Office, 2012

**Figure 7**

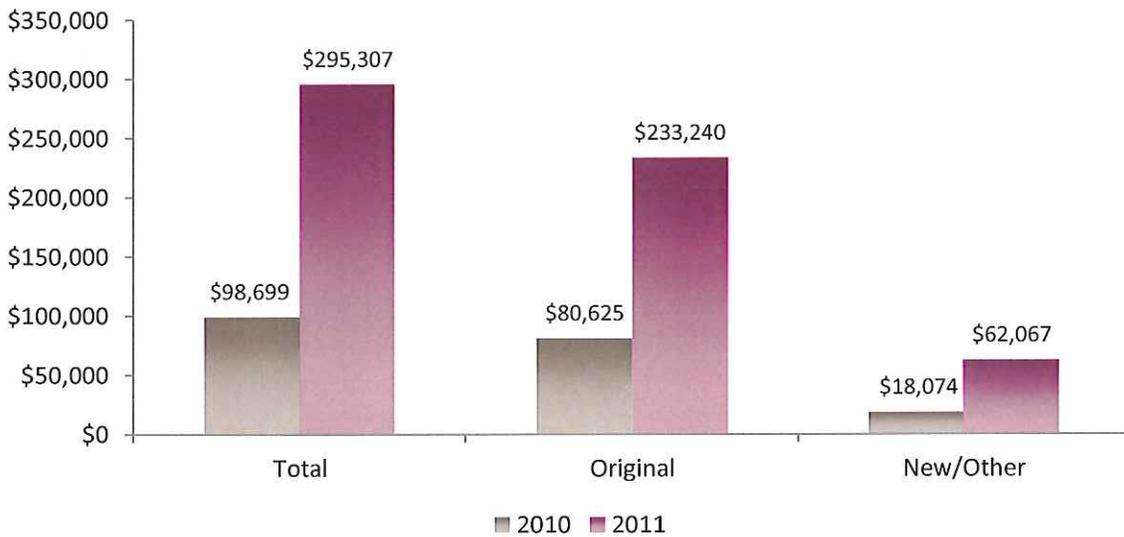
**AVERAGE AMOUNT OF RESTITUTION ORDERED IN JUVENILE GRAFFITI CASES**



SOURCE: SANDAG and County of San Diego Auditor and Controller's Office, 2012

**Figure 8**

**TOTAL AMOUNT OF RESTITUTION ORDERED IN JUVENILE GRAFFITI CASES**



SOURCE: SANDAG and County of San Diego Auditor and Controller's Office, 2012

## ADULT CASES

Statistics were provided by the Office of Revenue and Recovery for 34 adult graffiti cases in 2010 and 88 in 2011<sup>33</sup>. As Table 9 shows, as was the case for juveniles, a greater number of adult cases resulted in restitution being ordered in 2011, compared to 2010. This increase of 159 percent was even greater than the increase in juvenile cases, consistent with the fact that a greater number of cases were prosecuted. In addition, it is interesting to note that of the 88 cases with restitution ordered in 2011, there were actually only 66 defendants, with 14 of these individuals having two cases brought forth by different jurisdictions and 8 having more than two cases associated with different jurisdictions; further demonstrating that tagging crews and gangs do not necessarily follow jurisdictional boundaries. None of the defendants in restitution-ordered cases in 2010 had more than one case in the data provided by the County (not shown).

To determine if the amount of restitution ordered in each year also increased, the average amount per case (Figure 9) and the total amount ordered (Figure 10) were again compared for 2010 and 2011, as well as by type of jurisdiction (original versus new/other). As Figure 9 shows, the average amount of restitution ordered was greater in 2011 (\$5,547), compared to 2010 (\$2,116), overall, as well as by jurisdiction type (\$5,412 versus \$3,463 for original jurisdictions and \$5,620 versus \$1,281 for new/other jurisdictions). Because this average amount was higher, and more cases were also prosecuted in 2011, the total amount of restitution ordered was also higher overall, as well as for both of the jurisdiction types. These differences are also of practical relevance and should be continued to be tracked if this effort proceeds beyond the end of the pilot period<sup>34</sup>.

<sup>33</sup> Cases that did not include any information regarding the amount of restitution ordered were not included in this analysis.

<sup>34</sup> As was the case for the juvenile data, the amount of restitution paid could not be reliably calculated since the data could not be extracted from the County database

**Table 9**  
**NUMBER OF ADULT GRAFFITI/TAGGING CASES THAT RESULTED IN RESTITUTION ORDERED BY JURISDICTION AND YEAR**

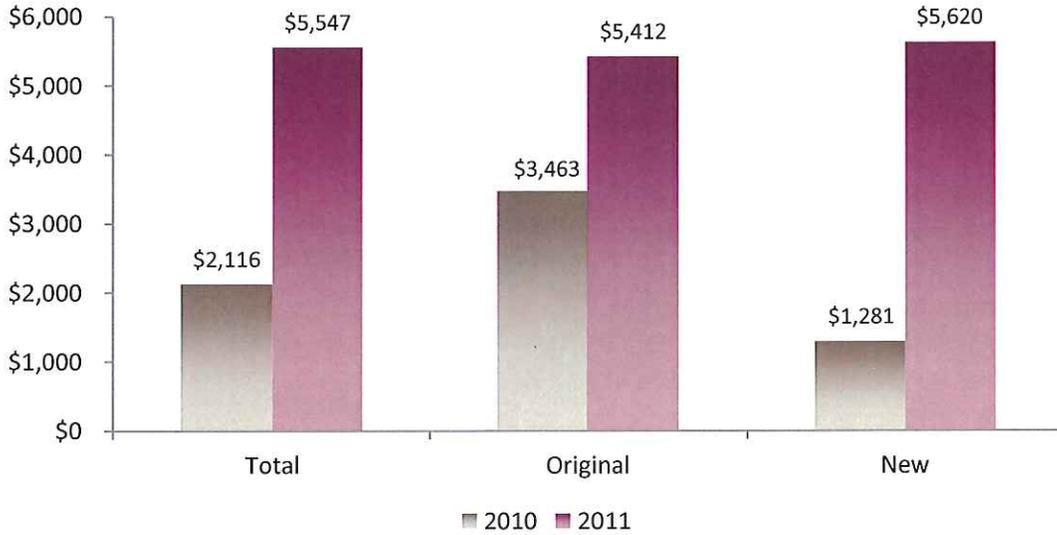
	2010	2011
<b>Original Jurisdictions/Departments</b>		
Escondido	2	1
Oceanside	1	10
Sheriff's Department	10	18
<b>Total</b>	<b>13</b>	<b>29</b>
<b>New Pilot Jurisdictions/Departments</b>		
Carlsbad	0	1
Chula Vista	2	7
Coronado	0	1
El Cajon	4	5
La Mesa	1	0
MTS	1	4
National City	0	5
San Diego	13	36
<b>Total</b>	<b>21</b>	<b>59</b>
<b>TOTAL</b>	<b>34</b>	<b>88</b>

*SOURCE: SANDAG and County of San Diego Auditor and Controller's Office, 2012*

across years in equitable timeframes (e.g., 3 or 6 months) for valid comparisons to be made. However, it is interesting to note that the amount of restitution paid in 2010 for these adult cases represented 16 percent of what was ordered. Again, if more restitution was ordered in 2011, it is reasonable to assume more was also paid.

**Figure 9**

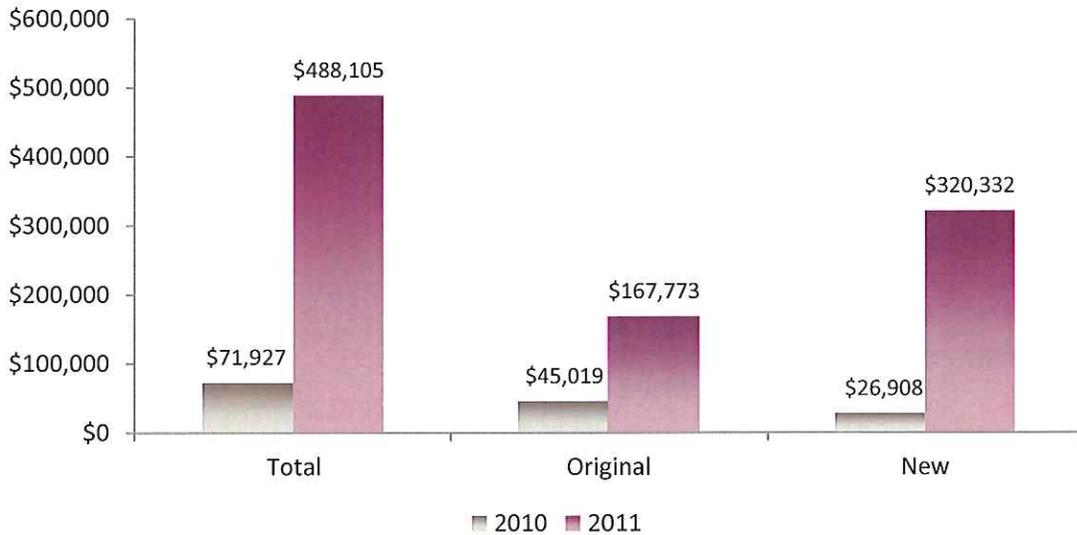
**AVERAGE AMOUNT OF RESTITUTION ORDERED IN ADULT GRAFFITI CASES**



SOURCE: SANDAG and County of San Diego Auditor and Controller’s Office, 2012

**Figure 10**

**TOTAL AMOUNT OF RESTITUTION ORDERED IN ADULT GRAFFITI CASES**



SOURCE: SANDAG and County of San Diego Auditor and Controller’s Office, 2012

## CONCLUSIONS AND RECOMMENDATIONS

Graffiti, whether an artistic endeavor or a communication tool among opposing gangs, is a negative reflection upon a community. While on its own graffiti may appear to be “harmless,” the research has soundly argued that if left unchecked, graffiti and other nuisance crimes can threaten the safety of a community. This social price, along with the economic costs associated with removal and enforcement, warrants investigation in effective practices to reduce and deter graffiti in all communities.



*Picture of a graffiti incident by a National City tagger, responsible for 202 incidents in Graffiti Tracker. This individual was arrested September 2011.*

While comparisons over time in the number of graffiti incidents in the region are limited by unreliable documentation prior to the implementation of the San Diego County Multi-Discipline Graffiti Abatement Program, data from the first 12 months of the pilot project revealed that 82,482 incidents of graffiti were documented across the region in 2011, which equates to 226 per day. These incidents resulted in almost 619,000 square feet of damage to property across the region, at an estimated clean-up cost of around \$16 million. Further analysis revealed multiple graffiti hot spots,

that most of the region’s graffiti is the result of tagging crews, and that about one in five of the most prolific taggers and gangs are active across different jurisdictions. The implementation of the *Graffiti Tracker* system varied across jurisdictions in terms of which departments were responsible for which tasks, but the vast majority of users reported satisfaction with the system and said they would recommend its continued use. The results of the outcome evaluation revealed that while fewer graffiti cases were prosecuted in 2011, than 2010, a greater amount of restitution was ordered after the pilot project was implemented, suggesting the usefulness of being able to build stronger cases through regional information sharing.

As a result of this evaluation, the following recommendations are offered for discussion and consideration.

- During 2011, the region’s partners did not reach the maximum number of graffiti incidents into the *Graffiti Tracker* system that they were eligible to do (82,482 of a possible 288,000). Therefore, usage should continue to be monitored to determine if this larger number is necessary as the system is more fully implemented or a better cost could be negotiated based on a smaller number of incidents being entered.
- If the regional pilot continues, a system for more on-going coordination and communication across jurisdictions should be explored that utilizes in-person meetings, as well as opportunities for electronic information sharing. For example, the City of Escondido shared that they found it was difficult to compile location information for private property cases and as a result, began using a “white board” that included the specific address and property owner, if available. They also found the need to update the cost matrix every year. Lessons learned from one jurisdiction should be shared with others to avoid duplication of effort.

- Because agency staff can be reassigned, it is important that on-going training opportunities be offered on a more regular basis to supplement technical assistance opportunities and ensure regular use. Cross-jurisdictional trainings would also serve as a vehicle for inter-department information sharing.
- This evaluation did not compare *Graffiti Tracker* to other technical options. When the County of San Diego moved forward in 2009 with their contract with *Graffiti Tracker*, they exercised a sole source option, noting that no other firm was able to provide a complete system or service. While pilot project system users reported a high level of satisfaction with the program, and the investment in this system should be considered when deciding next steps, it is important to note that this evaluation effort did not compare the effectiveness of *Graffiti Tracker* to other programs that may be available at a similar or lower cost.
- The maximum benefit of this system can only be realized if all of the region's agencies continue to participate. Given the continued tight budget situations many jurisdictions are facing, it is important, that a reliable funding source be identified to ensure all partners can participate.
- While the increase in restitution ordered was a positive change, the total amount was still lower than the estimated cost of cleaning up all of the documented graffiti. As such, other jurisdictions are encouraged to explore more aggressive legal action through civil channels, as Escondido has done for several years.
- The number of calls to 211 San Diego documented during the first 15 months of the project was relatively small, compared to the number of incidents entered into *Graffiti Tracker*. Therefore, on-going outreach to the community to report graffiti to jurisdictions is encouraged. In addition, continuing to get the message out across the region that graffiti will not be tolerated and is being addressed using a comprehensive approach may be useful in sending a deterrent message to would-be vandals.

## PILOT PROJECT SUCCESS STORIES

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“Over the past two weeks, undercover security personnel arrested five minors believed responsible for 277 individual tagging crimes that collectively caused damage in excess of \$25,000 to **Metropolitan Transit System** property, the transportation agency reported Tuesday. Altogether, the accused vandals, whose names were withheld because they are underage, are suspected of defacing buses, trolley cars, and buildings with roughly 3,580 square feet of graffiti, according to MTS officials. Investigators identified the suspects via a regional system launched last year to track tagging crimes in the San Diego area through GPS-enabled cameras and a photo database of perpetrators’ individual monikers and slogans.” (San Diego Channel 6, March 6, 2012.)

“San Diego’s **Metropolitan Transit System** is celebrating a win in court today, as an unnamed juvenile was ordered to pay \$14,710 in restitution for vandalism damage to MTS property. The youth used spray paint, permanent markers, and glass-etching tools to damage MTS property in at least 20 locations. The vandal’s graffiti was identified by *Graffiti Tracker*.” (San Diego Reader, September 23, 2011.)

“Police said Monday they have arrested an 18-year-old **National City** man suspected of causing more than \$60,000 in graffiti damage to city property. Detectives said that over the past several months the suspect tagged with spray paint more than 100 pieces of city property, including building and street and traffic signs. Gang detectives were able to catalog the tagging using *Graffiti Tracker*.” (San Diego Union Tribune, September 19, 2011.)

“**La Mesa** police served a warrant Thursday and arrested a 17-year old suspected of 71 tagging incidents in the city. The same tagging name had been written in locations through the city. Damage from the vandalism was estimated at more than \$8,000.” (San Diego Union Tribune, August 19, 2011.)

“A 19-year old **Vista** man was arrested Thursday on suspicion of 231 counts of felony vandalism causing more than \$100,000 in damage in the city, the Sheriff’s Department said.” (San Diego Union Tribune, August 18, 2011.)

“That’s what **Imperial Beach** Sheriff’s Deputy Martin Ryniec discovered when he and fellow deputies and **National City** police officers searched four homes and arrested two men and a 16-year old last week on suspicion of working with tagging crews. They are suspected of causing an estimated \$70,000 in damage in Imperial Beach over the past two years.” (San Diego Union Tribune, April 26, 2011.)

“Stone and Michalke said the four suspects are responsible for a total of more than \$100,000 in damage in North County cities including **Vista, San Marcos, and Oceanside**. Authorities said they may be arresting more prolific taggers in the future as regional law enforcement agencies put more information into *Graffiti Tracker*.” (North County Times, April 5, 2011.)

“A boy was arrested Tuesday on suspicion of 71 counts of felony vandalism that caused an estimated \$30,800 in damage, Sheriff’s officials said. **Vista** Sheriff’s deputies investigating prolific tagging in the city conducted a probation check on the juvenile in Oceanside and found several items relating to graffiti at his home.” (San Diego Union Tribune, March 15, 2011.)

Maps

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