

**CITY AND COUNTY OF SAN FRANCISCO**  
**BOARD OF SUPERVISORS**  
BUDGET AND LEGISLATIVE ANALYST

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**POLICY ANALYSIS REPORT**

To: *Supervisor Mar*  
From: *Budget and Legislative Analyst*  
Date: *May 24, 2013*  
Re: *Bicycle Theft Prevention and Improving the Return of Recovered Stolen Bicycles*



**Summary of Requested Action**

Pursuant to your request, the Budget and Legislative Analyst has: analyzed bicycle theft data occurring in the City and County of San Francisco; analyzed data on the cost of removing vandalized/abandoned bicycles; estimated the financial impact, including the costs to the City of bicycle theft from that cost data; examined existing bicycle theft policies and procedures of the San Francisco Police Department, the Bay Area Rapid Transit Police Department, and the San Francisco District Attorney's Office; and, developed recommendations that could aid in the reduction of bicycle thefts and aid in the recovery of stolen bicycles.

**Executive Summary**

The San Francisco Municipal Transportation Agency (SFMTA) has a goal in its Draft Bicycle Strategy for bicycles to comprise an eight to ten percent share of all transit modes in the City by 2020 as part of the SFMTA's larger goal of reaching a 50 percent reliance on sustainable modes of transit, such as bicycling, walking, public transit, and vehicle sharing. According to SFMTA, approximately 3.5 percent of all trips made in San Francisco were made by bicycle in 2011, a 75 percent increase since 2000 when bicycling was two percent of all trips.

Reported bicycle thefts increased by 70.2 percent between 2006 and 2012 in San Francisco. In 2012, there were 817 reported actual and attempted bicycle thefts. Supervisorial District 6 has disproportionately more bicycle thefts within its boundaries than other Supervisorial Districts, with approximately 40.4 percent of total reported actual and attempted bicycle thefts reported between 2006 and 2012. Supervisorial District 4 has the lowest number of reported actual and attempted bicycle thefts, with 1.4 percent of the total. Supervisorial District 1 comprised 4.8 percent of total reported actual and attempted bicycle thefts.

Given the increase in bicycle ridership in recent years, the SFMTA policy goal for increased ridership in the future and the increase in reported bicycle theft in recent years, the City should strengthen its attempts to ensure that adequate programs and policies are in place to prevent bicycle theft and to effectively assist citizens in recovering stolen bicycles.

Bicycle theft is typically significantly underreported because victims of bicycle theft assume that little can be done by police departments to recover their bicycle. According to the U.S. Department of Justice’s Center for Problem-Oriented Policing, for every one bicycle reported stolen, another four (or more) is estimated to have occurred. Therefore, rather than 817 reported actual and attempted bicycle thefts in 2012, there were likely an estimated 4,085 actual and attempted bicycle thefts, based on the Department of Justice’s multiplier. An overview of bicycle theft statistics and data is presented on the table to the right.

The Budget and Legislative Analyst’s estimate of the value of bicycles stolen in San Francisco in 2012, including those unreported, is \$4.6 million.

When parts of bicycles are stolen in public places in San Francisco and then abandoned, the Department of Public Works (DPW) is responsible for removing those bicycles. DPW estimates that it expended a total of \$192,465 on these types of bicycle removals from 2006 through 2012.

<b>Overview of Bicycle Theft in SF</b>	
Estimated number of daily bicycle riders in SF	75,000
Bicyclists’ share of all transit modes, 2011	3.5%
SFMTA goal for bicyclists’ share of all transit modes by 2020	8-10%
Reported actual & attempted bicycle thefts, 2012	817
Total actual, attempted and estimated unreported bicycle thefts, 2012	4,035
Increase in Bicycle Theft from 2006 to 2012	70%
Estimated value of 2012 reported & unreported stolen bicycles	\$4.6 mn.
Number of stolen bicycles recovered by SFPD, 2012	864
Number of stolen bicycles released to owner by SFPD, 2012	142 (16.4%)

The San Francisco Police Department (SFPD) returned only 142 of the 864 stolen bicycles recovered by the Department in 2012 to the bicycles’ owners, or 16.4 percent of the total bicycles taken into custody by the SFPD in 2012. The low return rate is primarily due to the inability of SFPD to reconnect bicycles with their owners because many bicycle owners do not have their bicycle serial number or other means of identifying their bicycle or, as is often the case, the bicycle’s owners do not attempt to recover their bicycles from SFPD. There are currently 858 bicycles in the custody of SFPD.

The prioritization of investigating reported bicycle thefts varies by SFPD station. Multiple SFPD Station staff were interviewed by the Budget and Legislative Analyst and reported that competing priorities and staffing challenges often make it difficult to devote significant resources to bicycle theft. However, there are SFPD police stations that have SFPD staff devoted to investigating bicycle theft, including the Mission and Park Police Stations.

Bicycle thefts are handled by Bay Area Rapid Transit (BART) Police in the same manner as any other theft or crime committed on BART property or on BART transit lines. BART Police officers have a four-prong approach to helping to combat bicycle thefts in San Francisco as follows:

1. Monitoring of station cameras at bicycle racks;
2. Officers’ patrolling of BART stations;
3. Community Service Officers patrolling of 16<sup>th</sup> and 24<sup>th</sup> Street Mission BART stations;

4. Educating BART passengers who lock their bicycles at BART stations on various strategies to decrease the chance of bicycle theft.

The San Francisco District Attorney's Office reports that they review each bicycle theft case independently and, based upon the case's merits, make a decision on whether or not to prosecute. A case worthy of prosecution would include evidence, such as the property (bicycle) taken as well as evidence that the perpetrator knew the property was stolen, if that can be proven beyond a reasonable doubt. The District Attorney's Office could not provide any data on bicycle theft cases that were prosecuted because the District Attorney's Office does not separately collect such caseload data for this type of crime.

There are several contributing factors to bicycle theft that, if remedied, could result in lower bicycle theft rates. These factors include:

- Lack of awareness of proper locking techniques;
- Issues establishing proof of ownership of bicycles;
- Insufficient secure bicycle parking;
- Lack of a centralized SFPD approach to bicycle theft;
- SFPD staffing challenges.

While bicycle theft is a problem that is difficult to solve entirely through government action, there are many actions that can be taken to educate the public as to how to protect themselves and deter bicycle theft through law enforcement including the options listed below which the Board of Supervisors may wish to consider:

1. Creation of a Citywide bicycle registration program;
2. Analysis of bicycle theft data consistently conducted throughout the City;
3. Bicycle-baiting, or sting operations strategically increased throughout the City;
4. Construction of increased manned/secured bicycle shelters in local MUNI stations and in City-owned parking garages;
5. Creation of more open source information available to the public on stolen and recovered bicycles;
6. Creation of a centralized SFPD bicycle theft unit to investigate and prevent bicycle theft as well as to educate the public on how to deter bicycle theft.

## Introduction

On October 26, 2010, the Board of Supervisors of the City and County of San Francisco (the City) approved a resolution that encouraged City departments and agencies to adopt a goal of having 20 percent of all trips<sup>1</sup> in San Francisco made by bicycle by the year 2020 (Resolution No. 511-10). According to its Draft Bicycle Strategy, the San Francisco Metropolitan Transportation Agency (SFMTA) currently has the goal of bicycles achieving an eight to ten percent share of all transit modes in the City (known as mode share), by 2020 as part of the larger goal of reaching a 50 percent reliance on sustainable modes of transit, such as bicycling, walking, public transit, and vehicle sharing. In order to achieve that goal, SFMTA released its Draft Bicycle Strategy in December, 2012 with the final Bicycle Strategy scheduled to be released in March, 2013.

According to the U.S. Census Bureau's American Community Survey, San Francisco is third in the nation (behind Portland, Oregon and Seattle, Washington) in bicycle ridership among major U.S. cities. According to SFMTA, approximately 3.5 percent of all trips made in San Francisco were made by bicycle in 2011<sup>2</sup>, a 75 percent increase since 2000 when bicycling was 2 percent of all trips.

As bicycles increase in popularity in San Francisco, the inherent risks of riding, including risk of theft, correspondingly increase. According to the U.S. Department of Justice's (DOJ) Center for Problem-Oriented Policing, fear of bicycle theft may discourage bicycle use and many bicycle owners do not replace their bicycles if stolen. Therefore, the Budget and Legislative Analyst concludes that a serious effort to prevent and combat bicycle theft should be a piece of the larger strategy to promote cycling in San Francisco and elsewhere.

## San Francisco Reported Bicycle Theft Data 2006 - 2012

Reported bicycle theft data from 2006 through 2012 are summarized below in Exhibit 2, by Supervisorial District. These numbers also include attempted theft since attempted bicycle theft is also useful in analyzing bicycle theft levels. As can be seen in Exhibit 2, there has been a steady increase in reported bicycle thefts each year, a 70.2 percent increase from 2006 through 2012, nearly equal to the approximately 71 percent increase in bicycles counted for the same years. The highest number of reported and attempted bicycle thefts has occurred within the boundaries of Supervisorial District 6, amounting to approximately 40.4 percent of total bicycle thefts reported from 2006 through 2012. This is likely due to its location and flat terrain, which makes bicycling more prevalent. The Supervisorial District with the lowest number of reported bicycle thefts is District 4, with 1.4 percent of total reported bicycle thefts.

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<sup>1</sup> A trip is a one-way journey from one destination to another by foot, bicycle or any other type of transportation.

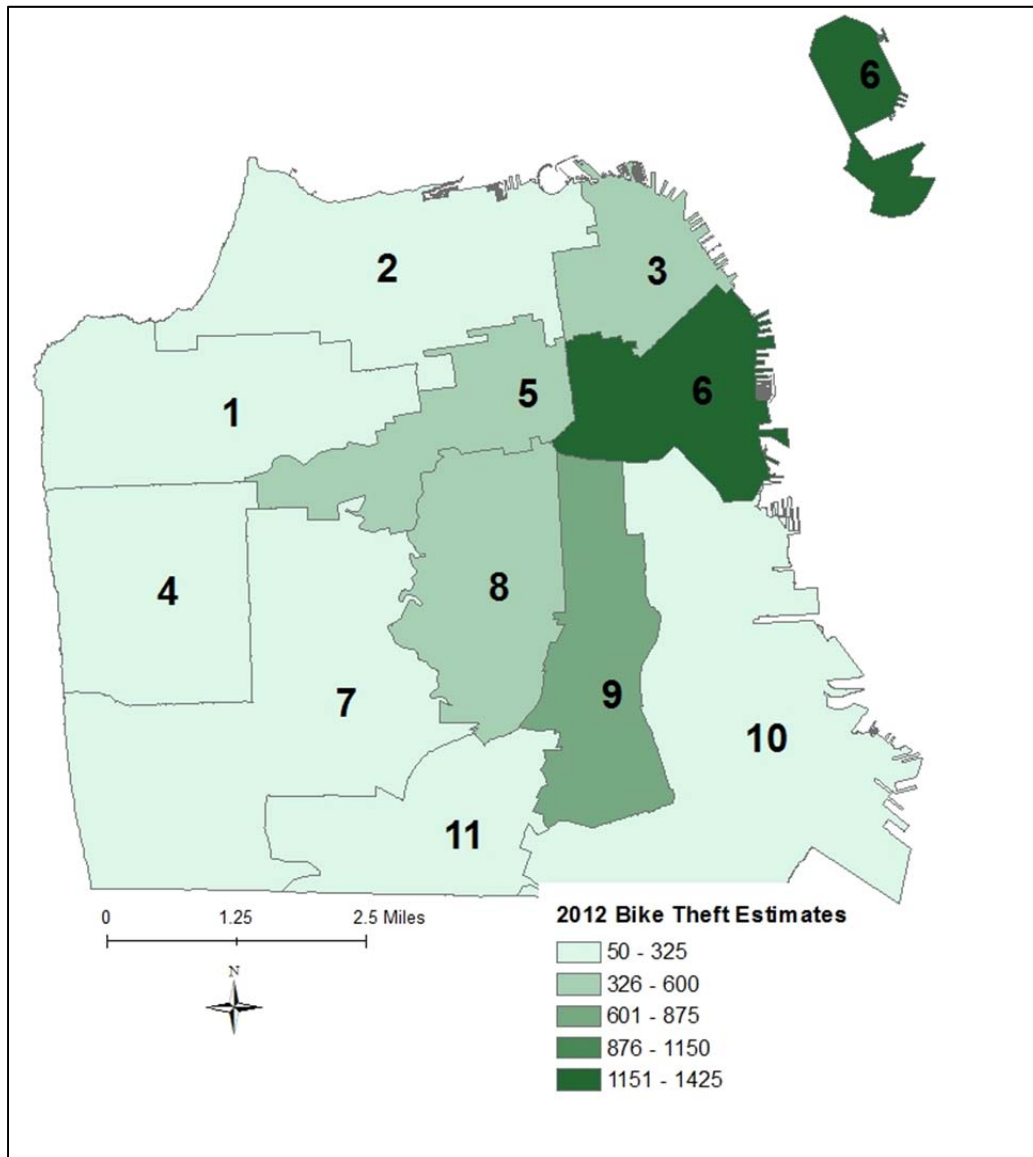
<sup>2</sup> SFMTA and Corey, Canapary & Galanis Research conducted two random telephone surveys of San Francisco residents in 2011. Both indicated 3.5 percent of trips in the City were made by bicycle. Absolute numbers of bicycle or other trips was not presented as part of the research results.

<b>Exhibit 2: Reported Actual and Attempted Bicycle Thefts in San Francisco from 2006 – 2012 by Supervisorial District</b>									
<b>Supervisorial District</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Total</b>	<b>% Total</b>
1	24	30	39	34	27	16	35	205	4.8%
2	49	35	26	32	27	21	21	211	4.9%
3	46	55	83	61	65	72	102	484	11.2%
4	6	10	8	4	12	6	15	61	1.4%
5	57	63	34	41	52	72	67	386	9.0%
6	144	183	246	253	346	284	285	1,741	40.4%
7	20	12	20	13	11	19	26	121	2.8%
8	45	32	47	93	51	65	67	400	9.3%
9	35	31	41	30	35	83	157	412	9.6%
10	19	23	20	20	31	28	32	173	4.0%
11	35	45	3	3	14	5	10	115	2.7%
<b>Total</b>	<b>480</b>	<b>519</b>	<b>567</b>	<b>584</b>	<b>671</b>	<b>671</b>	<b>817</b>	<b>4,309</b>	<b>100.0%</b>
<b># Attempted Thefts</b>	<b>9</b>	<b>6</b>	<b>6</b>	<b>13</b>	<b>17</b>	<b>14</b>	<b>20</b>	<b>65</b>	<b>1.5%</b>

Source: SFPD and BART Police

The Budget and Legislative Analyst notes that research on the topic shows that bicycle theft is typically significantly underreported because victims of bicycle theft assume that little can be done by police departments to recover their bicycles. According to the U.S. DOJ’s Center for Problem-Oriented Policing, for every one bicycle reported stolen, another four (or more) is likely to have occurred. Therefore, rather than the 817 bicycle thefts and attempted bicycle thefts reported in 2012, there were an estimated 4,085 bicycle thefts and attempted bicycle thefts in San Francisco using the DOJ multiplier. Exhibit 3 below illustrates the distribution of reported bicycle thefts and attempted bicycle thefts in San Francisco in 2012, applying the DOJ multiplier to SFPD and BART’s reported actual and attempted bicycle theft data for the year. The data is presented as well in Exhibit 4 below.

**Exhibit 3: Graphical Profile of Estimated Actual and Attempted Bicycle Thefts in San Francisco  
By Supervisorial District, 2012**



Source: SFPD and BART Police

Note: the total number of estimated actual and attempted bike thefts is based on data reported by SFPD and BART for the year, increased by the DOJ multiplier of a factor of 4 (formula is thus base number x 5), to account for unreported thefts. However, the relative frequency of thefts by Supervisorial District is the same as presented in this exhibit using either dataset.

<b>Exhibit 4: Estimated Actual and Attempted Bicycle Thefts in San Francisco in 2012</b>		
<b>Supervisory District</b>	<b>Reported</b>	<b>Estimated</b>
1	35	175
2	21	105
3	102	510
4	15	75
5	67	335
6	285	1425
7	26	130
8	67	335
9	157	785
10	32	160
11	10	50
<b>Total</b>	<b>817</b>	<b>4,085</b>

Source: Base data from SFPD and BART Police. Calculations of estimated actual and attempted bicycle thefts by Budget and Legislative Analyst

### **Estimated Financial Impact of Bicycle Theft in 2012**

A theft of objects valued at \$950 or less is classified petty theft<sup>3</sup>, a misdemeanor, under California Law and thefts over \$950 are classified grand theft<sup>4</sup>, a felony. In order to estimate the financial impact of bicycle theft in San Francisco, the 797<sup>5</sup> estimated bicycle thefts that occurred in 2012 (excluding attempted thefts, as shown in Exhibit 2) have been categorized by petty theft and grand theft based on SFPD's reported bicycle theft data, multiplied by 5 based on the DOJ multiplier. A midpoint bicycle value was assumed out of a broad range of possible values for bicycles in both crime categories. The Budget and Legislative Analyst notes that there is a wide range of bicycle values and it is therefore difficult to estimate an average value of stolen bicycles without data on the actual value of stolen bicycles, which is not available. Using the assumed bicycle values shown in Exhibit 5 for 2012, the total estimated value of bicycles stolen in San Francisco in 2012 is estimated by the Budget and Legislative Analyst to be \$4,637,875.

<sup>3</sup> California Penal Code Section 488

<sup>4</sup> California Penal Code Section 487

<sup>5</sup> 20, or 2.5 percent of the 817 reported bicycle thefts and attempted bicycle thefts were attempted bicycle thefts and therefore were not used to estimate financial value of bicycle thefts. The 797 actual bicycle thefts were used to estimate financial value.



<b>Exhibit 5: Estimated Financial Impact of Bicycle Theft in San Francisco in 2012</b>			
<b>Type of Theft</b>	<b>Number of Reported Bicycle Thefts</b>	<b>Estimated Actual Number of Bicycle Thefts including Unreported <sup>1</sup></b>	<b>Total Estimated Value</b>
<i>Assumed midpoint bicycle value</i>			<b>\$2,000</b>
Grand Theft	360	1,800	\$3,600,000
<i>Assumed midpoint bicycle value</i>			<b>\$475</b>
Petty Theft	437	2,185	\$1,037,875
<b>Total</b>	<b>797</b>	<b>3,985</b>	<b>\$4,637,875</b>

Source: Base data from SFPD and BART Police. Calculations of total estimated value by Budget and Legislative Analyst.

<sup>1</sup> The number of unreported bicycle thefts was determined by applying the DOJ multiplier (base number x5) to the number of reported bicycle thefts.

### City Costs of Removing Bicycles 2006 - 2012

When bicycle parts are stolen in public places in San Francisco (as compared to theft of an entire bicycle) and the remaining bicycle parts are abandoned, the Department of Public Works (DPW) is responsible for removing the remaining bicycles parts. As shown in Exhibit 6 below, a total of \$192,465 was estimated to be spent on these types of bicycle removal from 2006 through 2012. The costs steadily increased each year, with a 54.7 percent increase from 2006 to 2012.

<b>Exhibit 6: Estimated Cost of Bicycle Removal</b>		
<b>Year</b>	<b>Number of Requests</b>	<b>Cost of Removal<sup>6</sup></b>
2006	236	\$22,125
2007	238	22,312
2008	239	22,405
2009	350	32,812
2010	336	31,500
2011	289	27,093
2012	365	34,218
<b>Total</b>	<b>2,053</b>	<b>\$192,465</b>

Source: DPW

<sup>6</sup> Cost of removal estimates are in 2013 dollars.



## Bicycle Theft Policies and Procedures: San Francisco Police Department

### Reporting a Theft

When a bicycle theft is reported to the San Francisco Police Department (SFPD), a report is written and entered into the Crime Data Warehouse, the web-based crime reporting system SFPD uses. At that time, SFPD will collect pertinent identifying information from the person reporting the theft, including, if available, a picture of the bicycle and its serial number. With this information, SFPD personnel will attempt to locate the bicycle by conducting searches within the Property Control Division's database as well as in the Crime Data Warehouse system.

### Recovered Bicycles

The Property Control Division of the SFPD books bicycles, or takes them in to custody, in the same manner as any other piece of property that falls into SFPD custody. Typically, the bicycles are booked by the initiating officer and tagged with one of two types of tags: Property for Identification<sup>7</sup>, or Personal Property of Arrested Person.<sup>8</sup> Then, the bicycles are entered into log books (paper binders located in the SFPD property room) with identifying information such as the serial number, case number (if appropriate), and the year hyphenated by the Bicycle Number.<sup>9</sup>

The three classifications of property booked by SFPD are:

1. **Evidence** – A bicycle can be considered Evidence when it is stolen and then recovered by the SFPD. There are other examples of when a bicycle can be considered evidence, such as when an individual is arrested using the bicycle to commit another crime, such as drug sales. Bicycles booked as Evidence are tagged with Property for Identification tags. If a bicycle is booked as evidence, it must be kept for a minimum of 18 months, possibly longer, before being purged from the system and either donated or auctioned. An owner can reclaim these bicycles before the 18 months has concluded if he or she has proper proof of ownership and the SFPD Investigator of the case in which the bicycle is being held decides that is appropriate to release the bicycle.
2. **Found Property** – A bicycle can be considered Found Property when a police officer takes possession of an abandoned bicycle either by finding it themselves or when a citizen turns the property in after finding it. These bicycles may or may not be stolen and bicycles booked as Found Property are tagged with Property for Identification tags. Found property must be kept a minimum of 120 days before being purged from the system and either donated or auctioned. An owner can reclaim these bicycles before the 120 days has concluded if he or she has proper proof of ownership.

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<sup>7</sup> Property for Identification tags include essential identifying information, such as case number, offense type, description of item, including serial number, and date that the property was booked.

<sup>8</sup> Personal Property for Arrested Person tags include essential information, such as name of individual who owns the property being booked, date of birth of that individual, case number, and date that the property was booked.

<sup>9</sup> A bicycle number is a sequential number which starts at "1" at the beginning of the calendar year and is assigned to each bicycle booked by the SFPD. Each SFPD property classification has its own set of Bicycle Numbers.

3. **Personal Property** – A bicycle can be considered Personal Property when a person being arrested is in possession of a bicycle at the time of arrest and that bicycle is taken into SFPD custody.<sup>10</sup> Bicycles booked as Personal Property are tagged with Personal Property of Arrested Person tags. Bicycles of this type must be kept a minimum of 120 days before being purged from the system. Bicycles taken into police custody as Personal Property will be returned to their owners upon the individual's release from jail with the presentation of identification to the Property Control Division.

Once information on booked bicycles is entered into the respective hard copy log books, information is then entered into SFPD's Property Evidence Tracking System (PETS) where the bicycles can be tracked for the duration that they are in SFPD custody. Every movement or transfer of the bicycle between SFPD locations or status is entered into the PETS system. The PETS system is a standalone system that is not integrated into the new system that SFPD uses to prepare police reports, the Crime Data Warehouse.<sup>11</sup> Therefore, a separate query would need to be made through the PETS system to determine whether or not a bicycle is in the system and therefore in police custody. The only way a bicycle can be identified in the PETS system is by serial number.

Once a bicycle is in SFPD custody, it is taken to the SFPD's Building 606 in Hunters Point for storage. A photograph of bicycles housed at Building 606 as of March 20, 2013 is presented below in Exhibit 7.

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<sup>10</sup> The arresting officer may check to see if a bicycle taken during an arrest has been reported stolen and not return the bicycle to the arrested party if that is found to be the case.

<sup>11</sup> Crime Data Warehouse is a web-based system for police reports that allows the SFPD to search by keywords, including by serial numbers of stolen objects. The Crime Data Warehouse went online in July, 2012.

**Exhibit 7: Bicycles in SFPD Custody at Building 606, March 20, 2013**



Like the process of booking bicycles, the process of releasing bicycles varies by the bicycles' SFPD property classification.

Pieces of evidence, or stolen bicycles recovered by SFPD personnel, are only released to individuals that have a completed Property Release form issued and signed by the Sergeant or Inspector handling the case indicating that the bicycle can be released to this person. Since most bicycles are housed in Building 606, there must be arrangements made prior to release for the bicycle to be delivered to the Hall of Justice for pick-up. Once the bicycle has been brought to the Hall of Justice and identification matching the Property Release Form has been produced, the bicycle will be released.

Found Property, or abandoned bicycles found by SFPD personnel or turned in by a member of the public, can be released to individuals with proof of ownership provided to the satisfaction of the SFPD.<sup>12</sup> Proof of ownership may include providing a receipt for the bicycle with the bicycle's serial number, a picture of the bicycle which identifies it as the one in SFPD custody, a police report with a detailed description of the bicycle, or another unique marker on the bicycle which can identify it as belonging to the individual seeking release of the bicycle. If ownership is proven to the satisfaction of the SFPD, a

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<sup>12</sup> Police Code Section 1402

Property Release will be issued and the bicycle released. If ownership is not proven to the satisfaction of the SFPD, the individual will be directed to SFPD's Legal Department for follow-up.

Personal property, or bicycles in the possession of individuals when they are arrested, can be released with presentation of identification matching the name and date of birth that was originally logged on the Personal Property of Arrested Person tag.

As shown below in Exhibit 8, only 16.4 percent of the total recovered bicycles booked by SFPD in 2012 were released to an owner. The low return rate is primarily due to the inability of SFPD to reconnect bicycles with their owners because many bicycle owners do not have their serial number or other means of identifying their bicycle or, as is often the case, the bicycle's owner does not attempt to recover their bicycle from SFPD at all.

<b>Exhibit 8: Bicycles Recovered and Released by SFPD in 2012</b>			
<b>Property Classification</b>	<b>Recovered &amp; Booked</b>	<b>Released to Owner</b>	<b>Percentage Released</b>
Evidence	465	25	5.4%
Found Property	98	4	4.1%
Personal Property	301	113	37.5%
<b>Total</b>	<b>864</b>	<b>142</b>	<b>16.4%</b>

Source: SFPD

The City's Police Code<sup>13</sup> allows the SFPD to either donate or auction off bicycles that are not recovered. In 2012, over 300 bicycles of unknown value were donated to a variety of nonprofit organizations and churches, in response to requests to the SFPD.

### **Investigations**

The prioritization of investigating reported bicycle thefts varies by SFPD station. The Budget and Legislative Analyst requested input from SFPD's Central Office to obtain a department-wide perspective and policy statement on how these thefts are prioritized and treated Citywide but SFPD Command (Central Office) did not provide a response to these inquiries. However, multiple SFPD Station staff were interviewed and reported that competing priorities and staffing challenges often make it difficult to devote significant resources to bicycle theft and that the approach varies by station. However, there are police stations that have SFPD staff dedicated to investigating bicycle theft, such as the Mission and Park Stations.

Bicycle thefts of bicycles over \$950, considered Grand Theft, are typically investigated. If reported immediately, SFPD may be able to process the theft area for fingerprints, locate video surveillance footage, or obtain suspect information. Police officers may aid in recovery of stolen bicycles found in internet-based classified advertising by the theft victim and some police officers reported posting

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<sup>13</sup> Police Code Section 1404 and Section 1405.1

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internet advertisements for bicycles suspected of being stolen in an attempt to locate the bicycle's owner. Other SFPD officers reported visiting local flea markets (in Oakland and Berkeley) when informed by a resident that a bicycle previously reported stolen was found there for sale. The Mission and Park Stations both have websites where police officers post pictures of stolen (provided by the theft victim) and recovered bicycles for identification. However, without proof of ownership, bicycles cannot be released. Creating a single SFPD-wide website which consolidates all stolen and recovered bicycles is currently being attempted by one police officer. However, the officer has so far received little response from other stations wishing to contribute.

SFPD officers report that bicycle theft victims do not typically provide serial numbers, which makes reconnecting a recovered bicycle with its owner nearly impossible. Without a serial number or any other evidence which can serve as a means of investigating the crime, SFPD officers report that they usually get in touch with the bicycle theft victim to recommend resources on preventing bicycle theft in the future.

### **Bicycle Theft Prevention Efforts**

There are no SFPD-wide theft prevention efforts for bicycles currently taking place though some efforts are taking place at individual stations. For example, a police officer from Mission Station coordinated two bicycle theft workshops where attendees were educated on proper locking techniques, garage security, and how bicycle thefts are investigated by the SFPD. The most recent workshop, which took place in December, 2012, was held at Google's San Francisco office and was co-sponsored by Google, SF Safety Awareness for Everyone (SAFE)<sup>14</sup>, the San Francisco Bicycle Coalition and local bicycle shops.

One method that some SFPD officers and other law enforcement agencies employ to catch repeat bicycle thieves is called a "bike-bait" operation, in which police officers lock a bicycle with the intent of it being stolen in order to catch bicycle thieves in the act. Police officers will lock the bicycle using bicycle locks that can be easily broken, such as a cable lock, and station officers at key intersections around where the bicycle is locked. When the bicycle is stolen, the police pursue the bicycle thief immediately and make an arrest. Some stations with sufficient staff and resources conduct bike-bait operations on a monthly or quarterly basis. Other stations have not been authorized to conduct a bike-bait operation in months because doing so would result in overtime. SFPD staff report that bike-bait operations are useful in catching repeat bicycle thieves and in serving as a deterrent in additional bicycle thefts because bicycle thieves become aware that the bike-baiting operations are occurring and are more wary of stealing bicycles due to fear of arrest.

### **Bicycle Theft Policies and Procedures: Bay Area Rapid Transit (BART) Police**

#### **Reporting a Theft**

Bicycle thefts are handled by BART Police in the same manner as any other theft or crime committed on BART property or on BART transit lines. When a bicycle is reported stolen, a police report is written. Reports are then forwarded to BART Police's Crime Analyst and Detective Division for tracking and follow-up.

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<sup>14</sup> SF SAFE is a community crime prevention and public safety program that works in cooperation with SFPD and other City agencies to build safer neighborhoods through crime prevention, education, and public safety services.



### *Recovered Bicycles*

BART Police policy requires that all bicycles recovered from theft or abandoned and found on BART property be recorded in BART property records, or “booked”. Bicycles booked by BART Police are classified as either Evidence or Found Property. Unlike SFPD’s classification system, Personal Property is not a type of property used by BART Police because they do not operate a jail and therefore do not hold Personal Property for individuals being arrested until released. Bicycles are booked by Property and Evidence clerks by:

1. Completing an evidence/property page which describes each item of property separately, listing all serial numbers, owner's name, finder's name, and other identifying information or markings;
2. Assigning a property number to the bicycle;
3. Completing an evidence/property tag with the property number and attaching it to the bicycle;
4. Storing the booked bicycle in the bicycle storage area once booked.

Any changes in the location of the bicycle being held by BART Police are tracked and recorded. BART Police make all reasonable attempts to identify the rightful owner of bicycles classified as Found Property and contacting them. In order to release property of any kind, a Release of Property form must be issued listing the name and address of the person to whom the property is to be released and must be signed by the authorizing supervisor or detective. BART Police may auction any property not held for any other purpose and not claimed within 90 days of receipt.<sup>15</sup>

### *Bicycle Theft Prevention Efforts*

Bay Area Rapid Transit (BART) Police has a four-prong approach to helping to combat bicycle theft in San Francisco:

1. Monitoring of station cameras at bicycle racks;
2. Officers’ patrolling of stations;
3. Community Service Officers patrolling of 16<sup>th</sup> and 24<sup>th</sup> Street Mission BART stations;
4. Educating BART passengers who lock their bicycles at stations on various strategies to decrease the chance of bicycle theft.

BART Police have taken steps to educate BART passengers on proper locking techniques by “tagging” bicycles parked at BART stations once every other month with paper hangtags which give various tips on the type of lock recommended for purchase, where to lock a bicycle to deter theft, how to properly lock a bicycle to a bicycle rack, and how to find BART’s Bicycle Stations and lockers to provide additional security as well as providing a Bicycle Identification Form for bicycle owners to fill out with identifying information, including make, model, year, style, color, and serial number to aid recovery of a bicycle if stolen. BART also plans to install signs around bicycle parking areas in BART stations advising bicyclists on the most effective locks to use and how to lock to deter theft.

### *Bicycle Theft Policies and Procedures: San Francisco District Attorney’s Office*

The San Francisco District Attorney’s (DA) Office could not provide specific data on the number of prosecutions of bicycle thefts because their cases are recorded by the general crime classification only and bicycle thefts are grouped with other theft-related crime in the Office’s caseload reports. The DA’s

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<sup>15</sup> California Civil Code 2080.6

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Office reviews each case independently and, based upon the case's merits, makes a decision on whether or not to prosecute. A case worthy of prosecution would include evidence, such as the property (bicycle) taken as well as evidence that the perpetrator knew the property was stolen which could be proven beyond a reasonable doubt. The way a bicycle theft case is charged is dependent upon the amount of items taken and the perpetrator's prior criminal history.

### **Contributing Factors to Bicycle Theft and Low Levels of Stolen Bicycle Recovery in San Francisco**

There are several contributing factors to bicycle theft that, if remedied, could possibly result in lower bicycle theft rates. These factors include:

- Lack of awareness of proper locking techniques;
- Issues establishing proof of ownership of bicycle;
- Insufficient Secure Bicycle Parking;
- Lack of Central SFPD Approach to Bicycle Theft;
- SFPD Staffing Challenges.

#### **Lack of Awareness of Proper Locking Techniques**

A significant contributing factor to bicycle theft is the bicyclist's failure to lock their bicycle sufficiently to deter, if not entirely prevent, bicycle theft. First, the bicyclist must be aware of the most secure lock types. As shown in Exhibit 8 below, the two common types of bicycle locks are u-locks<sup>16</sup>(left) and cable locks<sup>17</sup> (right).

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<sup>16</sup> A u-lock is a rigid metal ring in the shape of the letter U.

<sup>17</sup> A cable lock is a chain, often case-hardened with plastic, with a key or combination lock attached to it.



**Exhibit 9: Common Bicycle Locks**



According to the DOJ's Center for Problem-Oriented Policing, a lock is considered secure if it can withstand an attack of three minutes or more by a thief using readily available hand tools. U-locks are widely considered to be the most secure lock to use to prevent bicycle theft because cable locks, depending on the individual lock's quality, are typically easy for thieves to cut using simple wire cutters. It is often recommended to use more than one type of lock, like both a u-lock and a cable lock, to make theft more difficult. Second, the locks used must be secured to an appropriate stationary object, such as a bicycle rack, in such a way that makes the bicycle more difficult to steal. Of the 180 possible locking configurations to secure a bicycle using a standard u-lock, only 23 are considered secure while 109 of those configurations are considered poor and 48 are considered semi-secure. Failure to lock a bicycle with the right lock and in the right way may result in that bicycle being stolen. Exhibit 10 below illustrates two proper bicycle-locking techniques.

**Exhibit 10: Effective Bicycle Locking Techniques**

**Locking without wheel removal**



**Position your bike frame and wheels** so that you fill up or take up as much of the open space within the lock's U portion as possible. The tighter the lock up, the harder it will be for a thief to insert a pry bar and pry open your lock. Notice here that 2 different locks are used.

**Locking with removing front wheel**



**Lock to a fixed, immovable object**, a parking meter; or a permanent bike rack cemented or anchored into the ground. It must prevent a thief from slipping the locked bike off over the top of the pole. Beware of locking to items that can easily be cut, broken or removed.

**These graphics are courtesy of Kryptonite - [www.kryptonite.com](http://www.kryptonite.com)**

While no survey of San Francisco cyclists has been done to date to gauge awareness of bicycle locking techniques, SFPD staff reports that improper locking of bicycles is a significant contributor to bicycle theft in the City. SFMTA issued its Draft Bicycle Strategy in December, 2012 with the final Bicycle Strategy scheduled to be released sometime in March, 2013. However, bicycle theft awareness was not highlighted as an identified need in the draft document and no outreach is planned by SFMTA to educate the public on proper bicycle locking techniques.

**Insufficient Secure Bicycle Parking**

Insufficient secure bicycle parking can result in bicyclists being forced to lock their bicycles to street furniture not intended for that purpose, such as street signs. According to SFPD staff, bicycles locked in such a manner are more at risk of theft than bicycles locked to bicycle racks because locks are often easier to remove from these locations. In addition, the context in which the bicycle is parked can also greatly influence whether or not a bicycle is stolen. This includes access, length of stay, lighting, surveillance, guardianship, and signage regarding appropriate use of bicycle parking and locking practices. The most secure forms of bicycle parking are guarded bicycle parking facilities and caged bicycle parking facilities. According to the SFPD staff, bicycles are most secure when locked in off-street facilities such as bicycle cages in parking garages or transit stations.

According to the SFMTA's Draft Bicycle Strategy, there are approximately 8,800 bicycle racks in the City. Since 2008, SFMTA has added 1,400 additional bicycle racks. In addition, SFMTA has installed 32 on-

street bike corrals<sup>18</sup> in the City with more planned. Finally, SFMTA administers and maintains 52 bicycle lockers in six separate parking garages in the downtown area. However, unlike BART, there are currently no MUNI stations that offer SFMTA-provided secure bicycle parking to facilitate transit connections and to combat bicycle theft occurring due to bicycles being left unattended on City streets for long period of times.

The SFMTA Draft Bicycle Strategy includes the objective of increasing short-term bicycle parking by achieving the baseline level of one bicycle rack on each neighborhood commercial block by 2014 as well as providing additional short-term bicycle parking by 2018 in areas to be identified by future surveys of San Francisco cyclists. As mentioned above, there are currently 8,800 bicycle racks in the City. SFMTA also plans to replace the existing 52 SFMTA-owned bicycle lockers, now housed in downtown parking garages, with electronic bicycle lockers and to install an additional 50 new electronic bicycle lockers by FY 2017-18.<sup>19</sup> The locations of these future bicycle parking installations have yet to be determined.

The Draft Bicycle Strategy also includes the objective of increasing long-term bicycle parking with a new type of structure by adding one unattended and one attended bicycle parking station each in FY 2013-14, FY 2015-16, and FY 2017-18 for a total of 3 unattended and 3 unattended bicycle parking stations by the end of FY 2017-18.<sup>20</sup>

BART currently provides various types of bicycle parking in or near all BART stations in San Francisco except for the Montgomery station, which currently has no bicycle parking. In San Francisco, bicycle racks are provided both inside and outside stations and a 130-space bicycle station is currently in place at the Embarcadero BART station that requires a keycard for entry<sup>21</sup>. Exhibit 11 below pictures the bicycle cage at the Embarcadero BART station.

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<sup>18</sup> Bicycle corrals are a series of bicycle racks installed in a traditional car parking space on a City street. SFMTA reports that installation of a 20-foot bicycle corral costs \$2,600.

<sup>19</sup> SFMTA estimates that the cost of installing an electronic bicycle locker is \$3,400.

<sup>20</sup> SFMTA estimates that the cost of installing an unattended bicycle parking station which houses 100-150 bicycles is \$500,000, including installation of an electronic key card system.

<sup>21</sup> BART charges \$0.03 per hour to secure a bicycle in any of its bicycle stations primarily as a means of discouraging bicycle storage at the locations.

**Exhibit 11: Bicycle Parking Cage, Embarcadero BART Station**



BART is in the process of implementing its Bicycle Plan, issued in July, 2012. Included in the BART Bicycle Plan's goals is to increase bicycle parking of all types to encourage BART passengers to bicycle to stations and to deter bicycle theft by improving lighting in bicycle parking areas and by increasing bicycle parking availability. BART plans to add two additional bicycle parking stations in two San Francisco stations, the 24<sup>th</sup> Street Mission and Civic Center stations, by 2014. The Civic Center bicycle station will be outside the paid area of the BART station and therefore accessible by both BART and MUNI riders. BART also plans to track bicycle theft data more closely to facilitate the development of measures to combat theft.

The most secure form of bicycle parking is manned indoor bicycle parking facilities or caged bicycle parking facilities. While SFMTA and BART have plans to increase indoor bicycle parking facilities at local transit stations, those bicycle parking facilities are aimed at cyclists who are using bicycles as one leg of a trip or commute, as opposed to parking facilities for cyclists using their bicycles as their sole or primary mode of transportation to and from their destinations. One possible way that SFMTA could improve safe bicycle parking availability in downtown San Francisco, the most popular destination due to the high volume of office buildings and the commercial activity taking place (as well as the area with the most bicycle theft) and in other key locations is to prioritize adding indoor bicycle parking at City-owned parking garages, such as the Union Square, Mission-Bartlett, and Fifth & Mission garages. City-owned garages are ideal locations for large bicycle cages because the City already owns the real estate and the locations are in high-traffic areas where demand for bicycle parking is high.

An example of extensive indoor bicycle parking being provided is in the city of Groningen in the Netherlands. In 2006, there were 30 guarded bicycle parking facilities which charge fees for their use. The daily fee is €0.90, equivalent to \$1.15<sup>22</sup>, or cyclists may purchase an annual fee of €25, equivalent to

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<sup>22</sup> Estimates in U.S. dollars are based on an exchange rate of \$1.00 being equal to €0.78.

\$32.05. In addition, there were 15 schools in Groningen in 2006 that provided guarded bicycle parking for an annual fee of €22.50, equivalent to \$28.85. The parking fees charged for guarded bicycle parking fully cover the costs of hiring the necessary staff for surveillance<sup>23</sup>. Groningen's bicycle mode share is 40 percent, significantly higher than San Francisco's current bicycle mode share of 3.5 percent. Groningen's population is approximately 181,000 people compared to San Francisco's population of 812,826<sup>24</sup>.

### **Lack of Central SFPD Approach to Bicycle Theft**

There is no central SFPD approach to bicycle theft. While individual SFPD stations devote staff and resources to investigating bicycle theft as well as attempting to reconnect recovered bicycles with their owners, other stations devote little to no time investigating such cases. This is largely due to competing priorities and insufficient staffing levels. SFPD staff report that bicycle theft is typically a lower priority when other, more serious crimes are on the rise.

SFPD currently employs the Computer Statistics (CompStat) method of analyzing crime data, which employs Geographic Information Systems (GIS) to map crime data and identify problem areas, known as hotspots, to aid in law enforcement efforts. SFPD's lack of a central approach to bicycle theft results in inconsistent use of CompStat for bicycle theft data analysis and proactive efforts to reduce future thefts. While some stations use CompStat to locate bicycle theft hotspots and attempt to prevent such thefts, other stations do not have the staff time given other crimes taking place, which are higher priority due to the severity and frequency of those crimes. As a result, citizens living in different parts of the City may not be receiving the same level and type of service pertaining to bicycle theft.

### **Issues Establishing Proof of Ownership**

One of the most significant issues related to bicycle theft is the low rate of return of stolen bicycles taken into custody by SFPD to their owners. The low return of stolen bicycles is primarily due to the inability of many owners to identify their bicycles with serial numbers or any other identifying information as well as an assumed generally low reporting rate of thefts resulting in many bicycles being left unclaimed in SFPD's possession, as shown above in Exhibit 6. In addition, inability to establish proof of ownership can result in bicycle thieves being released and the stolen bicycle returned to them rather than having the bicycle returned to the proper owner.

### **Insufficient Bicycle-Theft Operations**

While SFPD does engage in bicycle bait operations, these operations are not performed consistently enough in most stations to serve as a deterrent or to sufficiently catch enough repeat bicycle thieves to a degree sufficient to decrease bicycle thefts. This is largely due to staffing challenges. According to SFPD staff, a bike-baiting operation requires 6 – 8 officers for an entire 8-hour shift to conduct the operation. As previously discussed, while some stations undergo bike-baiting operations regularly, other stations do not.

Staffing challenges and competing priorities often result in bicycle theft, and bike-baiting operations in particular, not being performed. However, according to SFPD staff, such operations are extremely

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<sup>23</sup> Dutch Bicycling Council, 2006; van der Klaauw, 2006.

<sup>24</sup> 2011 U.S. Census



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effective at both arresting bicycle thieves through that specific operation as well as serving as a deterrent for future bicycle thefts through word of mouth that they are taking place. SFPD staff reports that one bicycle being used for bike-baiting operations needed to be painted because local bicycle thieves learned the color and were avoiding stealing bicycles that same color. Given the reported effectiveness of bike-baiting operations, increasing them strategically across the City would likely result in decreased bicycle theft.

New technologies such as using Global Positioning System (GPS) tracking systems in bicycles in bike-baiting operations to track a bicycle's movements and possibly catch criminals involved in bicycle theft who are knowingly fencing the stolen property could also be beneficial.

### **Best Practices for Combatting Bicycle Theft and Low Levels of Stolen Bicycle Recovery in San Francisco**

#### **Citywide Bicycle Registration Program**

Key to helping decrease bicycle theft in the City is to create a citywide bicycle registration program administered by SFPD or another City agency for cyclists to register their bicycles. Bicycle registration programs create a database for police to check when a bicycle comes into their possession, which would likely result in more bicycles being returned to their owners. Bicycle registration programs also allow bicyclists to record and store essential information that can be retrieved in case of bicycle theft and provided to law enforcement. There are currently three different types of bicycle registration programs: 1) registering serial numbers, 2) registering and engraving bicycles with unique codes, or 3) attaching microchips which, when scanned by a microchip reader, can provide owner information. Bicycle registration can be mandatory or voluntary. Currently, SFPD's Ingleside Station is administering a voluntary bicycle registration program. However, it is not a Citywide program.

One bicycle registration program in the United States that registers bicycles with serial numbers is the run by the City and County of Honolulu, Hawaii. Honolulu's bicycle registration program is mandatory and requires that all bicycles with 20 inches or larger wheels be registered in person at any of the available seven City Hall satellite locations. Bicycles without a bill-of-sale are required to fill out an additional form. A one-time \$15 fee is charged when a bicycle is first registered and an additional fee of \$5 when ownership of a bicycle is transferred. All taxes collected from the registration fees are deposited into a special bicycle fund to be used for bicycle-related projects and programs in Honolulu. The bicycle owner receives a sticker upon registration and is required to place the registration sticker on the bicycle frame's seat tube facing the forward direction.

The City of Oakland, California's bicycle registration program is also mandatory and requires that all bicycles be registered every three years in person at any City fire station. Boulder, Colorado's voluntary bicycle registration program is free and also must be done in person at two Boulder Police Department locations. Austin, Texas offers free online bicycle registration and updates to existing registries on a voluntary basis.

An example of a bicycle registration program which engraves bicycles with unique codes on the seat tube of the frame is the one in place in Amsterdam, Holland. The engraving is free and bicycles are registered with local police. The City of Copenhagen, Denmark ran a pilot bicycle registration program that ended in May, 2010 where microchips were given out and used to track 5,000 bicycles.

### Predictive Policing

An alternative to simply increasing staffing devoted to crime data analysis is to employ new software technologies, collectively termed predictive policing, which algorithmically predicts crime, rather than having police department staff examine past criminal behavior to determine future criminal behavior. These technologies are fairly new in their employment. One software package, PredPol, built on the model used to predict aftershocks from earthquakes, was beta-tested in 2012 by the City of Santa Cruz Police Department and one City of Los Angeles police precinct. The Santa Cruz Police Department utilized the software initially for car and vehicle burglaries and then expanded its use to bicycle thefts, battery, assault, and prowling. During the year that the software was tested, the City of Santa Cruz saw a 19 percent reduction in burglaries. Data on the result of the use of predictive policing for bicycle theft was unavailable. The Los Angeles precinct employing the technology saw similar dips in burglaries and other property crimes.

### Options for Consideration by the Board of Supervisors

#### Citywide Bicycle Registration Program

1. The Board of Supervisors could request that SFPD report back with a plan, including funding options, to establish a voluntary Citywide bicycle registration program to be administered either by SFPD or by another organization such as SF SAFE.

*The nonprofit organization SF SAFE is in the planning stages of creating a voluntary Citywide bicycle registration program that they would administer. The San Francisco Bicycle Coalition is also in support of the creation of the voluntary registration program. SF SAFE's current plan is to have the program be free with registration of serial numbers and provision of registration stickers, similar to the program that the City and County of Honolulu has in place. SF SAFE estimates the total annual cost of implementing and running the program to be between \$32,400 and \$90,000. No funding for the bicycle registration program has been secured to date.*

2. The Board of Supervisors could consider legislation mandating that bicycles in San Francisco be registered, similar to the City and County of Honolulu's bicycle registration program, in order to increase the number of registered bicycles and the chances of stolen bicycles recovered being returned to their owners. A nominal registration fee could be charged for this program.

*Charging a nominal fee for each bicycle registration would help to finance the program. State law<sup>25</sup> limits the amount of bicycle registration fees to \$4 per registration and \$2 for a transfer of registration.*

#### Analysis of Bicycle Theft Data Consistently Conducted Throughout the City

3. The Board of Supervisors could request that SFPD report back with a plan for Board of Supervisors review on how the CompStat program could be used by SFPD personnel to analyze bicycle theft data Citywide and how the Department's new predictive policing software, PredPol, can be used to combat bicycle theft when it is fully implemented.

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<sup>25</sup> California Vehicle Code Section 39004



*A Citywide approach would be beneficial to allow for effective law enforcement and prevention of bicycle theft. SFPD staff report that the current method of data analysis employed by the SFPD to identify crime hotspots and trends is extremely labor-intensive and therefore limits the amount of analysis that can be done. While some SFPD stations utilize staff time to analyze bicycle thefts, others do not. SFPD staff advises that, once implemented, the Department's new predictive policing software, PredPol, will allow SFPD stations to quickly and efficiently predict crimes and free up staff time for analyzing the data.*

#### **Bike-Baiting Operations Throughout the City**

4. The Board of Supervisors could request that SFPD report back with a plan for how bike-baiting operations could be strategically increased Citywide, including the possible use of Global Positioning System (GPS) tracking systems as part of these operations.

#### **Increased Manned/Secured Bicycle Shelters**

5. The Board of Supervisors could request that SFMTA report back on its plans, priorities and schedule for adding indoor bicycle parking at City-owned parking garages.

#### **Increase Bicycle Theft Education**

6. The Board of Supervisors could request that SFPD prepare a plan for Board of Supervisors review, including private funding ideas, to regularly conduct bicycle theft prevention education workshops on topics such as proper locking techniques, proper bicycle parking locations, and documenting identifying information, such as the serial number, in order to aid in the recovery of bicycles once stolen.

*The most efficient and cost-effective way to combat bicycle theft is to educate the public on bicycle theft prevention. SFPD should seek sponsors for bicycle theft prevention workshops, like the two previously coordinated by SFPD staff, on a regularly scheduled basis. Signage educating people on the best locks to use, like the types of signs BART is planning to install, in the most bicycled areas would also be an effective way of educating people on proper locking.*

#### **More Open Source Information of Stolen and Recovered Bicycles**

7. The Board of Supervisors should recommend that SFPD enhance their efforts to educate the public about bicycle theft by mapping specific bicycle thefts in the same manner that SFPD now displays mapping of other crimes on its website.<sup>26</sup>

*This would help to educate the public on where bicycle theft is occurring so cyclists can take the appropriate precautions. An alternative would be to make the data available to the public so bicycle advocacy organizations like the San Francisco Bicycle Coalition could map the data themselves and make it available to the public.*

*A publicly available database that allows bicycle purchasers who are purchasing a used bicycle through means such as Craigslist to check to see if the bicycle they are considering purchasing is*

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<sup>26</sup> <http://www.crimemapping.com/map/ca/sanfrancisco>

*stolen would also be beneficial, especially if a bicycle registration program is implemented. Bicycle shop owners considering purchasing a bicycle for resale in their shop could also use such a database. The information in its entirety should not be available to decrease fraud (fraudulently claiming a stolen bicycle as personal property) but should be able to be queried by individual serial number. The database should have a public Application Programming Interface (API) in order to allow private software developers to create additional ways for the public to access the data, such as through smartphone apps or websites, which would allow the data to further help decrease purchases of stolen bicycles.<sup>27</sup>*

8. The Board of Supervisors should request that SFPD establish a Citywide website in which pictures of stolen and recovered bicycles can be posted for identification.

*The Mission and Park Stations both have websites where police officers post pictures of both stolen (provided by the theft victim) and recovered bicycles for identification. Ingleside Station has posted pictures of some recovered bicycles. However, other SFPD stations do not have these websites and therefore there is no means of identifying a stolen bicycle in those stations' jurisdictions.*

### **Create a Bicycle Theft Unit**

9. The Board of Supervisors should request that SFPD prepare and report back with an analysis on the costs and benefits of creating a Bicycle Theft Unit within the Department as well as the appropriate staffing levels and positions for such a unit.

*Many of the above recommendations could be difficult to staff in local SFPD stations due to competing priorities and staffing issues. One way that SFPD could centralize bicycle theft operations and ensure that there are devoted staff working to decrease bicycle theft and educate bicyclists on strategies to decrease the odds of being a theft victim is to create a central "Bike Theft Unit" with both civilian and sworn staff to work on bicycle theft issues. A bicycle theft unit could:*

- *Work with local SFPD stations to increase bike-baiting operations throughout the City using minimal station officers to decrease overtime needs for such operations;*
- *House a bicycle registration program operated by civilian staff;*
- *Conduct analysis of bicycle theft data;*
- *Coordinate and participate in regularly scheduled bicycle education workshops;*
- *Maintain anti-theft technologies providing open-source bicycle theft data, including a Citywide webpage of stolen bicycles, a bicycle theft crime map, and a stolen bicycle database for used bicycle purchasers;*
- *Conduct regular visits to local flea markets to determine whether bicycles being sold there were stolen;*
- *Aid residents in recovering stolen bicycles located by the resident independently of SFPD.*

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<sup>27</sup> There are now many precedents for the value of providing a public Application Programming Interface (API) to government data. The UN and World Bank provide data on international development, and the federal government provides a wide range of its data on Data.gov, in standard formats and public APIs. For examples of the creative uses that volunteer software developers can create using such data, see the initiative Code for America (<http://codeforamerica.org/>).

*As shown in Exhibit 12 below, based on a Bike Theft Unit staffing level of 5 full-time employees (FTE) consisting of 1 Sergeant, 2 Officers and 2 Principal Clerks, the total cost of staffing a Bike Theft Unit would be approximately \$687,012 per year, including fringe benefits. The Budget and Legislative Analyst notes that the creation of a Bike Theft Unit would enable the reallocation of some existing staff resources to combat bicycle theft and therefore would not necessarily be \$687,012 per year in additional costs to the City. Another possibility is to create a smaller Bike Theft Unit of 3 full-time employees consisting of 1 Sergeant, 1 Officer, and 1 Principal Clerk which would result in an estimated cost of \$343,506 per year, including fringe benefits. Another possibility is for SFPD to dedicate SFPD staff to a Bike Theft Unit on a part-time basis with specific hour amounts dedicated to bike theft across the City. The Budget and Legislative Analyst also notes that the cost of staffing a Bike Theft Unit represents 14.8 percent of the estimated value of the stolen bicycles in 2012 alone. In addition, a strong effort on the part of SFPD to combat bicycle theft would likely be instrumental in increasing bicycle mode share in the City consistent with City policy, as discussed above.*

<b>Exhibit 12: Estimate of Possible Costs of Bike Theft Unit Staff</b>				
	<b>FTE</b>	<b>Annual Salary</b>	<b>Annual Fringe</b>	<b>Total</b>
Officers	2	\$221,052	\$95,052	\$316,104
Sergeants	1	128,284	55,162	183,446
Principal Clerk	2	131,092	56,370	187,462
<b>Total</b>	<b>5</b>	<b>\$480,428</b>	<b>\$206,584</b>	<b>\$687,012</b>

### Conclusion

While bicycle theft is a problem difficult to solve entirely through government action, there are many actions that can be taken to educate the public on how to protect themselves and deter bicycle theft through law enforcement such as the options described above in detail. In summary, those options include:

1. Creation of a Citywide bicycle registration program;
2. Analysis of bicycle theft data consistently conducted throughout the City;
3. Bicycle-baiting, or sting operations strategically increased throughout the City;
4. Construction of increased manned/secured bicycle shelters in local MUNI stations and in City-owned parking garages;
5. Creation of more open source information available to the public on stolen and recovered bicycles;
6. Creation of a centralized SFPD bicycle theft unit to investigate and prevent bicycle theft as well as to educate the public on how to deter bicycle theft.