



**ABAG PLAN CORPORATION**  
375 Beale Street, Suite 700  
San Francisco, CA 94105

**MEMO**

**Date:** October 4, 2016  
**To:** PLAN Risk Management Committee Members  
**From:** Jill Stallman, ABAG PLAN Claims Manager  
**Re:** **Bicycle Accident Analysis**

**ACTION REQUIRED**

This report is for information purposes only. No action is required.

**OVERVIEW**

A member was experiencing an uptick in serious bicycle accidents and asked if this was indicative of the experiences of the rest of the members or if this might be specific to their jurisdiction. As a data driven organization we responded by engaging in a study of bicycle losses across the pool and amongst members. In June an analysis was done to determine what information we can extract from the claims data regarding bicycle accidents, both solo accidents and bicycle vs auto accidents.

Bicycle accident data was pulled from across the pool over the last five full fiscal years (2011/12 through 9/14/16 which encompasses part of the 2016/17 fiscal year). Over the past five plus years there are 39 occurrences in total; 30 were solo bicyclist losses and 9 involved a bicyclist versus an auto.

Attached are reports sorting the losses in different ways for solo bicycle accidents and also for bicycle versus auto losses:

- By Fiscal Year (DOL)
- By Member
- By Cause
- By Department
- By Sub-Department
- By Day of the Week

## **OBSERVATIONS**

### **SOLO BICYCLE ACCIDENTS**

#### **SOLO BICYCLE ACCIDENTS – by fiscal year**

There is little change in frequency (claim count) from year to year with the general range being 5-8 solo bicycle accidents per year. 2013/14 yielded not only the highest number of claims but also the highest total incurred (cost). In that year there were 3 more serious exposures with a total incurred of \$100k or more. Of the 8 claims in that time period 2 are still open and are in active litigation with one being a bicyclist fatality. Then in 2014/15, although the frequency is similar to the prior year the total incurred is less than half of 2013/14. All files in 14/15 are closed but 2 that are in active litigation. \$160k of the \$200,503 total incurred went to one loss that we were able to resolve pre-litigation.

12 out of 30 (40%) of the solo bike accidents closed without payment (including the 1 incident that never developed into a formal claim). 2 out of 30 (7%) closed with payment – both a result of litigation.

Some of the more severe injuries are resulting from tires getting caught in storm drain grates for the shared use bike lanes on the roadway. *We are not able to successfully argue trail immunity or recreational immunity for these scenarios.*

#### **SOLO BICYCLE ACCIDENTS – by member**

Over the five-year period the claim count per member ranged from 1-3 solo bicycle claims presented. The severity aligned to a member with a single loss represents a matter that is open in litigation and is being actively defended so we expect this to ultimately be much lower as we are optimistic about the outcome. The lower chart uses colors to code the regions of the Bay and we see the majority of the single accident activity (22 out of 30) occurring in the Peninsula and South Bay.

#### **SOLO BICYCLE ACCIDENTS – by cause**

From a claim count (frequency) perspective by cause of loss, we see the most solo bicycle accidents alleged to have been cause by issues in the bike lanes/paths (7 out of 30, 23%) and due to roadway/street repair (7 out of 30, 23%). These two leading causes are followed by collision with a pedestrian/bike or accidents in construction zones at 3 each (3 = 10% of the total claim count). Then with 2 claims each the other leading causes are curb/sidewalk hazards, unsafe grates/covers/lids and ground surface hazards.

Regarding severity (claim cost) roadway/street repair is the single leader on cost exposure at \$515,456 or 49% of the total incurred and is the cause most often litigated under via the allegation of dangerous condition.

### **SOLO BICYCLE ACCIDENTS – by sub-department**

By sub-department we see streets as the leading area with 22 of the 30 (73%) of the claim count. Sidewalks follows at 4 out of 30 claims or 13%.

From a severity (cost) perspective, streets also takes the top position with \$982,428.53 of the total incurred (94%) with sidewalks still following in the #2 position but the severity on streets is \$20,345.22 or 5% of the total incurred for all which is \$1,050,393.91.

### **SOLO BICYCLE ACCIDENTS – by day of the week**

We also captured the day of the week on which these solo accidents occurred. The data shows the frequency of bicycle accidents occurring more on Saturdays and the severity does correlate. 10 out of 30 (33%) of the losses on Saturdays carry \$612,748.88 of the total \$1,050,393.91 total incurred for all (or 58%). These are more of the recreational riders while Tuesdays and Thursdays also carry some frequency and severity tied to those days, as well, at 7 claims (23% of the 30 total) for Tuesday and \$200,200 or 19% of the collective total incurred. Then Thursday aligns with 4 of the 30 losses (13%) and \$142,964 or 14% of the total incurred. During the claim investigations we are told that commuting to work in shared use bike lanes is a reason these people are on their bikes.

### **BICYCLE vs AUTO ACCIDENTS**

These are our more severe injuries. Although there are fewer of these types of losses than there are solo bicycle accidents (9 vs 30 respectively), accidents involving motor vehicles hardly result in a minor injury. Of the 9 bike vs auto accident claims presented in the last 5 years (DOL) the majority (5 out of 9 or 56%) are currently open with 3 of those in active litigation.

### **BICYCLE vs AUTO ACCIDENTS – by fiscal year**

There were 9 accidents in total reported for this five year time period. From a claim count perspective 2011/12 reveals our highest number of bicycle versus auto claims at 4 (44%). The five year range is 0-4 claims per year with none reported during 2013/14. At the second highest year for claim frequency at 3 (33%), 2014/15 posted our greatest severity (cost) with \$541,002 of the total

incurred for that five year period being \$619,534 making 87% of the total incurred aligned with 2014/15.

### **BICYCLE vs AUTO ACCIDENTS – by member**

The data reveals that all bicycle versus auto losses occurred in the South Bay and Peninsula. During the past 5 fiscal years none were reported from the East Bay or North Bay regions yet from a frequency standpoint no single jurisdiction has more than 2 of these types of losses during the five FY time frame. Of these 9 total losses 5 are still open and are being defended optimistically. Although we currently have 29 members in the pool, during this analysis period we had 29. From the data we see that 7 or the 29 members experienced bicycle losses with automobiles making that 24% of the pool bearing these exposures.

### **BICYCLE vs AUTO ACCIDENTS – by cause**

The causes of these claims are mainly attributed to issues in the bike lanes and paths with 3.3 \* of the 9 (37%) falling in this area with 3 of the 9 (33%) caused by a collision with a pedestrian /bicyclist or other object. (*\*Note that this data is reported at the occurrence level. There are actually 12 claims tied to 9 occurrences. To clarify further, there are some multi-claimant losses in which a spouse is claiming loss of consortium /mental stress and their claim is coded differently from that of the injured party.*) As to severity and cost, although issues with signage represents .3 (3%) of the total claims as to claim count, they represent \$350,000 of the \$619,534 total incurred of all, or 56%. The issues with bike lane make up 31% or \$190,002 of the total incurred.

### **BICYCLE vs AUTO ACCIDENTS – by sub-department**

This data was worth checking but in the end did not reveal any notable surprises. 78% of the bicycle versus auto losses fell in the Streets area with 7 of the 9 claims falling here and the other two were tied to police activity. Similarly, 91% (\$561,002) of the total claim costs (619,534) relate to Streets.

### **BICYCLE vs AUTO ACCIDENTS – by day of the week**

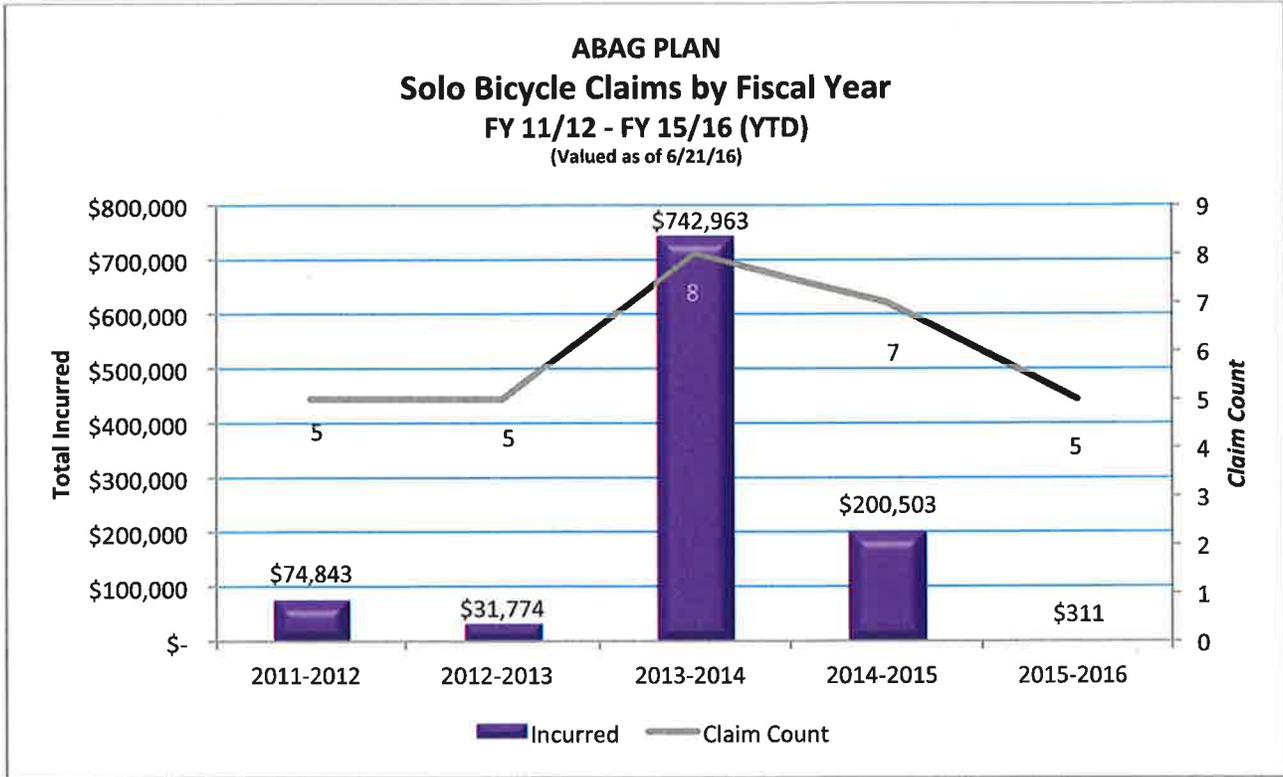
Similar to the solo bicycle accident analysis, Tuesdays and Thursdays show a higher level of occurrences (3 each) than on the other days of the week. But severity stays tied to the weekends. Here this is one severe Friday loss that carries 61% of the \$619,534 total incurred at \$381,000. This matter is still open. Of interest is that in the last 5 years there are no bicycle versus auto accidents amongst any of the 29 members occurring on Saturday or Sunday.

### **Summary**

Overall the data specific to bicycle losses at the pool level shows fewer bicycle related losses than expected. Here in the Bay we live in an environment where greener options

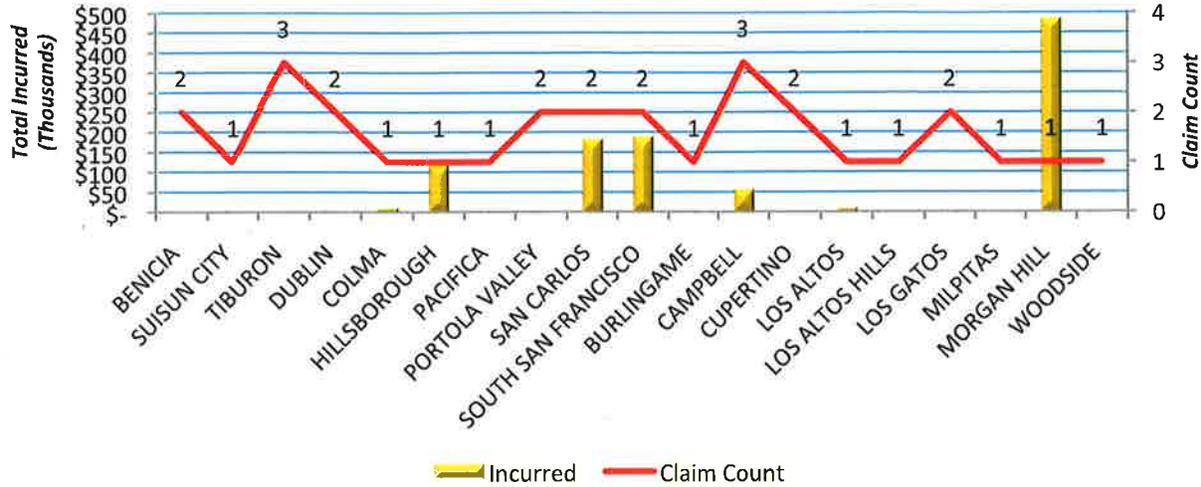
for commuting are encouraged and recreational cycling is optional throughout the year given few weather impediments. There is some trend information we are able to glean from the five years of data that the frequency increases on the weekends are certain jurisdictions in the South Bay and Peninsula have more cycling activity than in other areas of the region. Bicycle losses will remain on our watch list mainly due to concerns regarding exposure to severity. If any notable changes develop in the future we will revisit this analysis.

Solo Bicycle Claims  
 Fiscal Years 2011/2012 thru Fiscal Year 2015/2016 (YTD)  
 As of June 21, 2016



Fiscal Year	Claim Count	Loss Paid	Total Paid	Total Reserves	Incurred	LAE Paid	% of Count	% of Incurred
2011-2012	5	\$ 35,175.00	\$ 74,842.74	\$ -	\$ 74,842.74	\$ 39,667.74	17%	7%
2012-2013	5	\$ 8,094.55	\$ 29,274.29	\$ 2,500.00	\$ 31,774.29	\$ 21,179.74	17%	3%
2013-2014	8	\$ 201,180.05	\$ 295,669.49	\$ 447,293.45	\$ 742,962.94	\$ 94,489.44	27%	71%
2014-2015	7	\$ 160,465.83	\$ 174,620.40	\$ 25,882.43	\$ 200,502.83	\$ 14,154.57	23%	19%
2015-2016	5	\$ 308.11	\$ 308.11	\$ 3.00	\$ 311.11	\$ -	17%	0%
<b>Grand Total:</b>	<b>30</b>	<b>\$ 405,223.54</b>	<b>\$ 874,715.03</b>	<b>\$ 475,678.88</b>	<b>\$ 1,050,393.91</b>	<b>\$ 169,491.49</b>	<b>100%</b>	<b>100%</b>

**ABAG PLAN**  
**Solo Bicycle Claims by Member**  
 FY 11/12 - FY 15/16 (ytd)  
 (Valued as of 6/21/16)



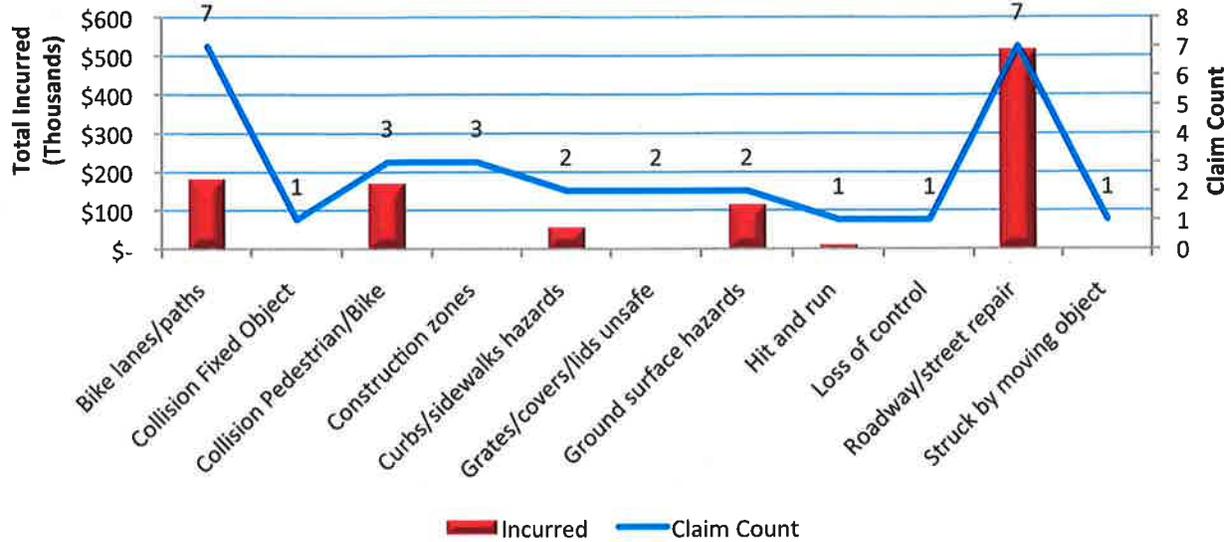
Member	Claim Count	Loss Paid	Total Paid	Total Reserves	Incurred	LAE Paid
BENICIA	2	\$ 175.00	\$ 175.00	\$ -	\$ 175.00	\$ -
SUISUN CITY	1	\$ -	\$ -	\$ -	\$ -	\$ -
TIBURON	3	\$ -	\$ -	\$ 2,501.00	\$ 2,501.00	\$ -
DUBLIN	2	\$ -	\$ -	\$ -	\$ -	\$ -
COLMA	1	\$ -	\$ 9,653.33	\$ -	\$ 9,653.33	\$ 9,653.33
HILLSBOROUGH	1	\$ 75,000.00	\$ 110,204.06	\$ 4,795.94	\$ 115,000.00	\$ 35,204.06
PACIFICA	1	\$ -	\$ -	\$ 1.00	\$ 1.00	\$ -
PORTOLA VALLEY	2	\$ -	\$ 24.00	\$ 1.00	\$ 25.00	\$ 24.00
SAN CARLOS	2	\$ 125,000.00	\$ 155,901.46	\$ 25,881.43	\$ 181,782.89	\$ 30,901.46
SOUTH SAN FRANCISCO	2	\$ 167,500.00	\$ 188,679.74	\$ -	\$ 188,679.74	\$ 21,179.74
BURLINGAME	1	\$ -	\$ -	\$ -	\$ -	\$ -
CAMPBELL	3	\$ 35,465.83	\$ 55,811.05	\$ -	\$ 55,811.05	\$ 20,345.22
CUPERTINO	2	\$ 308.11	\$ 308.11	\$ -	\$ 308.11	\$ -
LOS ALTOS	1	\$ -	\$ 9,681.19	\$ -	\$ 9,681.19	\$ 9,681.19
LOS ALTOS HILLS	1	\$ 394.20	\$ 394.20	\$ -	\$ 394.20	\$ -
LOS GATOS	2	\$ -	\$ -	\$ 1.00	\$ 1.00	\$ -
MILPITAS	1	\$ 1,180.05	\$ 1,180.05	\$ -	\$ 1,180.05	\$ -
MORGAN HILL	1	\$ -	\$ 42,502.49	\$ 442,497.51	\$ 485,000.00	\$ 42,502.49
WOODSIDE	1	\$ 200.35	\$ 200.35	\$ -	\$ 200.35	\$ -
<b>Grand Total:</b>	<b>30</b>	<b>\$ 405,223.54</b>	<b>\$ 574,715.03</b>	<b>\$ 475,678.88</b>	<b>\$ 1,050,393.91</b>	<b>\$ 169,491.49</b>

\* Sorted by Region

■ North Bay Area   
 ■ East Bay   
 ■ Peninsula   
 ■ South Bay

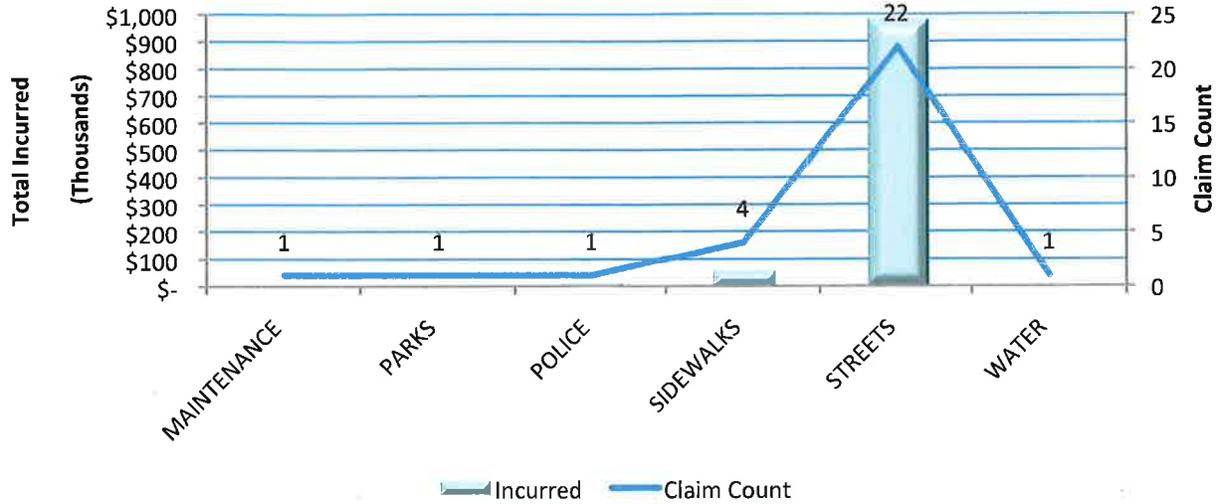
## ABAG PLAN Solo Bicycle Claims by Cause

FY 11/12 - FY 15/16 (YTD)  
(Valued as of 6/21/16)



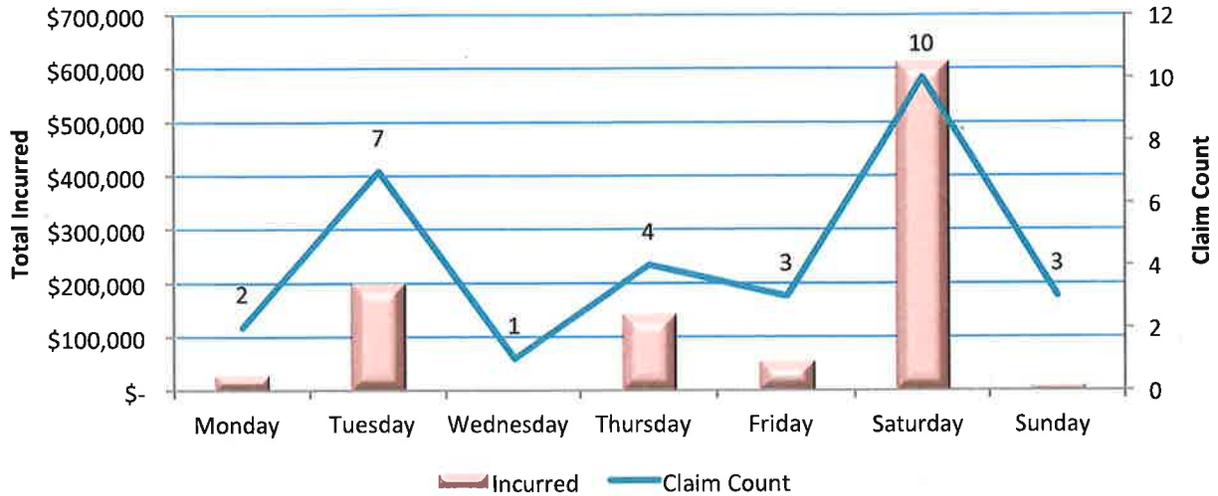
ABAG Cause Code	Claim Count	Loss Paid	Total Paid	Total Reserves	Incurred	LAE Paid	% of Count	% of Incurred
Bike lanes/paths	7	\$ 125,465.83	\$ 156,403.29	\$ 25,881.43	\$ 182,284.72	\$ 30,937.46	23%	17%
Collision Fixed Object	1	\$ -	\$ -	\$ -	\$ -	\$ -	3%	0%
Collision Pedestrian/Bike	3	\$ 160,000.00	\$ 169,681.19	\$ -	\$ 169,681.19	\$ 9,681.19	10%	16%
Construction zones	3	\$ 175.00	\$ 175.00	\$ -	\$ 175.00	\$ -	10%	0%
Curbs/sidewalks hazards	2	\$ 35,000.00	\$ 55,333.22	\$ 1.00	\$ 55,334.22	\$ 20,333.22	7%	5%
Grates/covers/lids unsafe	2	\$ -	\$ -	\$ 1.00	\$ 1.00	\$ -	7%	0%
Ground surface hazards	2	\$ 75,308.11	\$ 110,512.17	\$ 4,795.94	\$ 115,308.11	\$ 35,204.06	7%	11%
Hit and run	1	\$ -	\$ 9,653.33	\$ -	\$ 9,653.33	\$ 9,653.33	3%	1%
Loss of control	1	\$ -	\$ -	\$ 2,500.00	\$ 2,500.00	\$ -	3%	0%
Roadway/street repair	7	\$ 9,274.60	\$ 72,956.83	\$ 442,499.51	\$ 515,456.34	\$ 63,682.23	23%	49%
Struck by moving object	1	\$ -	\$ -	\$ -	\$ -	\$ -	3%	0%
<b>Grand Total:</b>	<b>30</b>	<b>\$ 405,223.54</b>	<b>\$ 574,715.03</b>	<b>\$ 475,678.88</b>	<b>\$ 1,050,393.91</b>	<b>\$ 169,491.49</b>	<b>100%</b>	<b>100%</b>

**ABAG PLAN**  
**Solo Bicycle Claims by Sub-Department**  
**FY 11/12 - FY 15/16 (YTD)**  
 (Valued as of 6/21/16)



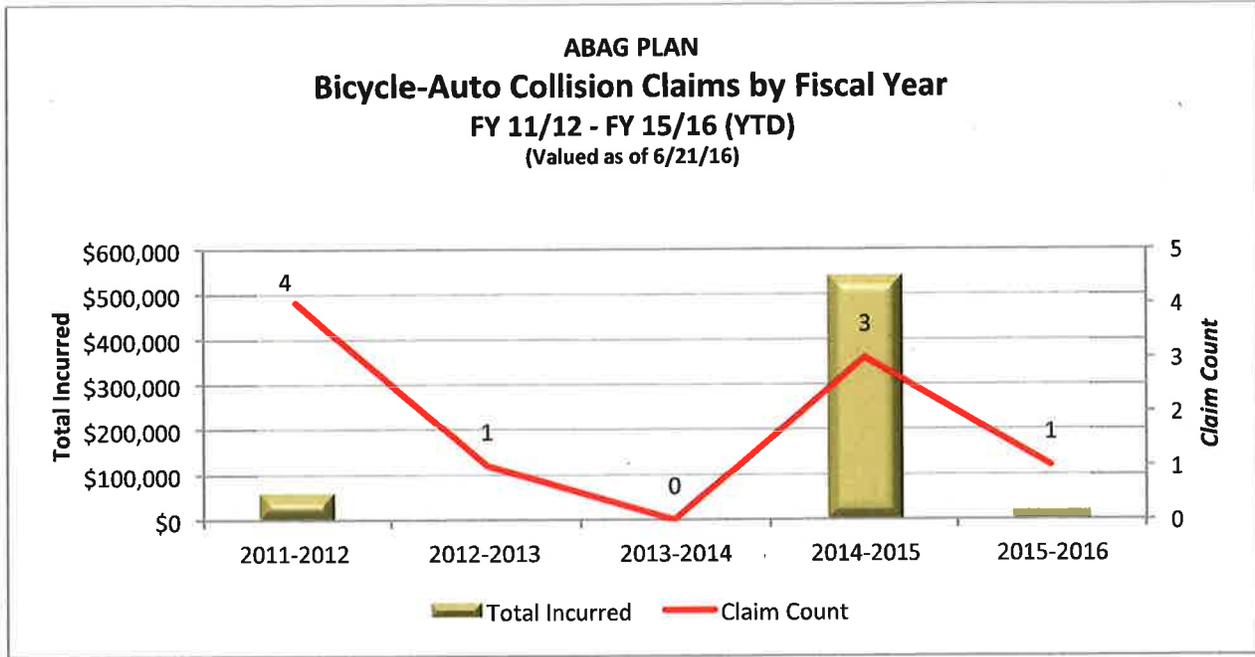
Sub-Department	Claim Count	Loss Paid	Total Paid	Total Reserves	Incurred	LAE Paid	% of Count	% of Incurred
MAINTENANCE	1	\$ -	\$ -	\$ -	\$ -	\$ -	3%	0%
PARKS	1	\$ -	\$ -	\$ -	\$ -	\$ -	3%	0%
POLICE	1	\$ -	\$ 9,653.33	\$ -	\$ 9,653.33	\$ 9,653.33	3%	1%
SIDEWALKS	4	\$ 35,465.83	\$ 55,811.05	\$ 1.00	\$ 55,812.05	\$ 20,345.22	13%	5%
STREETS	22	\$ 369,757.71	\$ 509,250.65	\$ 473,177.88	\$ 982,428.53	\$ 139,492.94	73%	94%
WATER	1	\$ -	\$ -	\$ 2,500.00	\$ 2,500.00	\$ -	3%	0%
<b>Grand Total:</b>	<b>30</b>	<b>\$ 405,223.54</b>	<b>\$ 574,715.03</b>	<b>\$ 475,678.88</b>	<b>\$ 1,050,393.91</b>	<b>\$ 169,491.49</b>	<b>100%</b>	<b>100%</b>

**ABAG PLAN**  
**Solo Bicycle Claims by Day of Week**  
**FY 11/12 - FY 15/16 (YTD)**  
 (Valued as of 6/21/16)



Day Of Week	Claim Count	Loss Paid	Total Paid	Total Reserves	Incurred	LAE Paid	% of Count	% of Incurred
Monday	2	\$ 7,965.83	\$ 29,157.57	\$ -	\$ 29,157.57	\$ 21,191.74	7%	3%
Tuesday	7	\$ 160,175.00	\$ 174,317.57	\$ 25,882.43	\$ 200,200.00	\$ 14,142.57	23%	19%
Wednesday	1	\$ 308.11	\$ 308.11	\$ -	\$ 308.11	\$ -	3%	0%
Thursday	4	\$ 126,180.05	\$ 142,962.94	\$ 1.00	\$ 142,963.94	\$ 16,782.89	13%	14%
Friday	3	\$ 35,000.00	\$ 55,333.22	\$ -	\$ 55,333.22	\$ 20,333.22	10%	5%
Saturday	10	\$ 75,594.55	\$ 162,954.43	\$ 449,794.45	\$ 612,748.88	\$ 87,359.88	33%	58%
Sunday	3	\$ -	\$ 9,681.19	\$ 1.00	\$ 9,682.19	\$ 9,681.19	10%	1%
<b>Grand Total:</b>	<b>30</b>	<b>\$ 405,223.54</b>	<b>\$ 574,715.03</b>	<b>\$ 475,678.88</b>	<b>\$ 1,050,393.91</b>	<b>\$ 169,491.49</b>	<b>100%</b>	<b>100%</b>

Auto-Bicycle Collision Claims  
 Fiscal Years 2011/2012 thru Fiscal Year 2015/2016 (YTD)  
 As of June 21, 2016



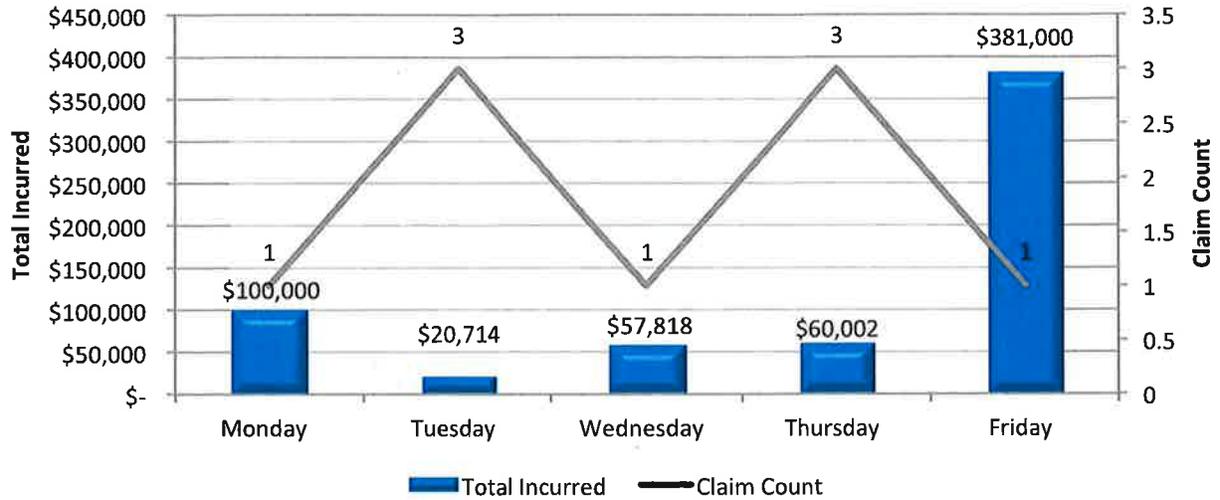
Fiscal Year	Claim Count	Loss Paid	Total Paid	Total Reserves	Total Incurred	LAE Paid	% of Claim Count	% of Incurred
2011-2012	4	\$ 48,500.00	\$ 57,818.05	\$ -	\$ 57,818.05	\$ 9,318.05	44%	9%
2012-2013	1	\$ 713.68	\$ 713.68	\$ -	\$ 713.68	\$ -	11%	0%
2013-2014	0	\$ -	\$ -	\$ -	\$ -	\$ -	0%	0%
2014-2015	3	\$ -	\$ 138,362.74	\$ 402,639.26	\$ 541,002.00	\$ 138,362.74	33%	87%
2015-2016	1	\$ -	\$ -	\$ 20,000.00	\$ 20,000.00	\$ -	11%	3%
<b>Grand Total</b>	<b>9</b>	<b>\$ 49,213.68</b>	<b>\$ 196,894.47</b>	<b>\$ 422,639.26</b>	<b>\$ 619,533.73</b>	<b>\$ 147,680.79</b>	<b>100%</b>	<b>100%</b>

**ABAG PLAN**  
**Bicycle-Auto Collision Claims by Cause**  
**FY11/12 - FY15/16 (YTD)**  
 (Valued as of 6/21/16)



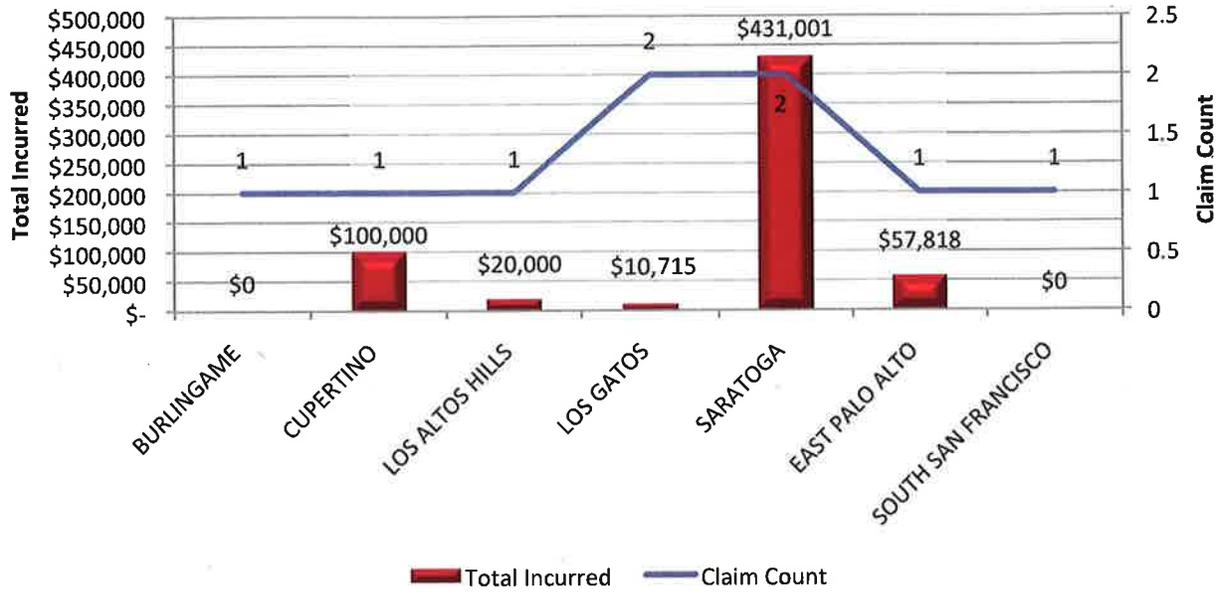
ABAG Cause Code	Claim Count	Loss Paid	Total Paid	Total Reserves	Total Incurred	LAE Paid	% of Claim Count	% of Incurred
Bike lanes/path	3.3	\$ -	\$ 95,323.90	\$ 94,678.10	\$ 190,002.00	\$ 95,323.90	37%	31%
Collision Pedes	3	\$ 48,500.00	\$ 57,818.05	\$ -	\$ 57,818.05	\$ 9,318.05	33%	9%
Mental or stres	0.3	\$ -	\$ -	\$ 1,000.00	\$ 1,000.00	\$ -	3%	0%
Signage: error/f	0.3	\$ -	\$ 43,038.84	\$ 306,961.16	\$ 350,000.00	\$ 43,038.84	3%	56%
Struck by movin	1	\$ 713.68	\$ 713.68	\$ -	\$ 713.68	\$ -	11%	0%
Unsafe conditio	1	\$ -	\$ -	\$ 20,000.00	\$ 20,000.00	\$ -	11%	3%
<b>Grand Total</b>	<b>9</b>	<b>\$ 49,213.68</b>	<b>\$ 196,894.47</b>	<b>\$ 422,639.26</b>	<b>\$ 619,533.73</b>	<b>\$ 147,680.79</b>	<b>100%</b>	<b>100%</b>

**ABAG PLAN**  
**Bicycle-Auto Collision Claims by Day of Week**  
**FY11/12 - FY15/16 (YTD)**  
 (Valued as of 6/21/16)



Day of Week	Claim Count	Loss Paid	Total Paid	Total Reserves	Total Incurred	LAE Paid	% of Claim Count	% of Incurred
Friday	1	\$ -	\$ 43,038.84	\$ 337,961.16	\$ 381,000.00	\$ 43,038.84	11%	61%
Monday	1	\$ -	\$ 70,023.85	\$ 29,976.15	\$ 100,000.00	\$ 70,023.85	11%	16%
Thursday	3	\$ -	\$ 25,300.05	\$ 34,701.95	\$ 60,002.00	\$ 25,300.05	33%	10%
Tuesday	3	\$ 713.68	\$ 713.68	\$ 20,000.00	\$ 20,713.68	\$ -	33%	3%
Wednesday	1	\$ 48,500.00	\$ 57,818.05	\$ -	\$ 57,818.05	\$ 9,318.05	11%	9%
<b>Grand Total</b>	<b>9</b>	<b>\$ 49,213.68</b>	<b>\$ 196,894.47</b>	<b>\$ 422,639.26</b>	<b>\$ 619,533.73</b>	<b>\$ 147,680.79</b>	<b>100%</b>	<b>100%</b>

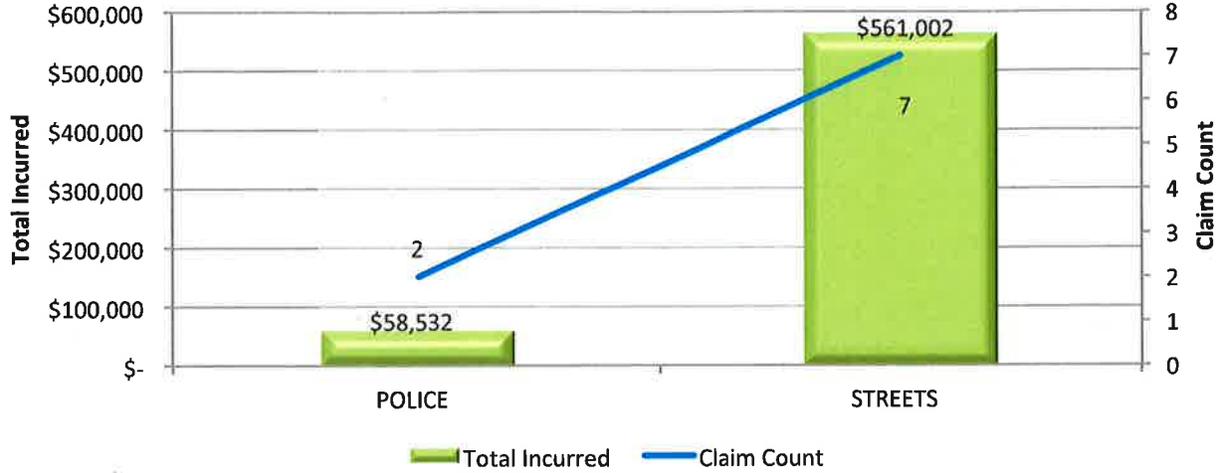
**ABAG PLAN  
Bicycle-Auto Collision Claims by Member  
FY11/12 - FY15/16 (YTD)  
(Valued as of 6/21/16)**



Member	Claim Count	Loss Paid	Total Paid	Total Reserves	Total Incurred	LAE Paid	% of Claim Count	% of Incurred
BURLINGAME	1	\$ -	\$ -	\$ -	\$ -	\$ -	11%	0%
CUPERTINO	1	\$ -	\$ 70,023.85	\$ 29,976.15	\$ 100,000.00	\$ 70,023.85	11%	16%
LOS ALTOS HILL	1	\$ -	\$ -	\$ 20,000.00	\$ 20,000.00	\$ -	11%	3%
LOS GATOS	2	\$ 713.68	\$ 3,783.81	\$ 6,930.87	\$ 10,714.68	\$ 3,070.13	22%	2%
SARATOGA	2	\$ -	\$ 65,268.76	\$ 365,732.24	\$ 431,001.00	\$ 65,268.76	22%	70%
EAST PALO ALTO	1	\$ 48,500.00	\$ 57,818.05	\$ -	\$ 57,818.05	\$ 9,318.05	11%	9%
SOUTH SAN FRA	1	\$ -	\$ -	\$ -	\$ -	\$ -	11%	0%
<b>Grand Total</b>	<b>9</b>	<b>\$ 49,213.68</b>	<b>\$ 196,894.47</b>	<b>\$ 422,639.26</b>	<b>\$ 619,533.73</b>	<b>\$ 147,680.79</b>	<b>100%</b>	<b>100%</b>

\* Sorted by Region ■ North Bay ■ East Bay ■ Peninsula ■ South Bay

**ABAG PLAN**  
**Bicycle-Auto Collision Claims by Sub-Department**  
**FY11/12 - FY15/16 (YTD)**  
 (Valued as of 06/21/16)



Sub-Department	Claim Count	Loss Paid	Total Paid	Total Reserves	Total Incurred	LAE Paid	% of Claim Count	% of Incurred
POLICE	2	\$ 49,213.68	\$ 58,531.73	\$ -	\$ 58,531.73	\$ 9,318.05	22%	9%
STREETS	7	\$ -	\$ 138,362.74	\$ 422,639.26	\$ 561,002.00	\$ 138,362.74	78%	91%
<b>Grand Total</b>	<b>9</b>	<b>\$ 49,213.68</b>	<b>\$ 196,894.47</b>	<b>\$ 422,639.26</b>	<b>\$ 619,533.73</b>	<b>\$ 147,680.79</b>	<b>100%</b>	<b>100%</b>





**Date:** October 12, 2016

**To:** Brian Dossey – Chairman; Risk Management Committee

**From:** Jim Hill, Risk Management Officer

**Subject:** **Drone Risk/Exposure – Best Practices Recommendation**

**Action:** **Approval of Best Practices for Contractors or Subcontractors using Unmanned Aerial Systems (Drones) - Insurance Requirements for Contracts (IRIC).**

**Recommendation:**

Staff recommends the Risk Management Committee approve the following guidelines for managing drone risk from Contractors/Subcontractors.

**Overview**

The use and operation of Unmanned Aerial Systems (Drones) has proliferated in recent years. Both public and private enterprises have taken appropriate steps to evaluate and manage the emerging risk associated with the use of “drones”.

PLAN staff provided the Risk Management Committee and Board of Directors with a report on the subject matter. The report dated March 28, 2016 provided insight and commentary on:

- Use and application of drones
- Regulatory environment (Federal and Local)
- Ownership and Operation
- Inherent Risk and Exposure
- Coverage perspective
- Policies and best practices

The report and additional reference material are included as supplements to this update.

It is important to acknowledge the PLAN program does not provide Property and Liability coverage for member drone activity or operations. At this time, PLAN members have elected to exclude this element of coverage at the pool level. Appropriate coverage for

members who have drone exposures can be structured on a stand-alone basis through our PLAN insurance intermediary.

The use of drones in surveillance, search and rescue, engineering, surveying and by the film industry present additional challenges with respect to managing risk. Drones are now being utilized within the scope of contracted services. In recognition of the increase in drone usage by contractors, guidelines specific to managing this new element of risk have been developed.

PLAN members traditionally manage this type of risk through contractual indemnification language and risk transfer mechanisms bonds/insurance. Our best practices are outlined in the Insurance Requirements in Contracts (IRIC) Manual furnished by Alliant and contained in our website.

Staff recommends the following guidelines for managing drone risk in contracted services:

In addition to traditional General Liability coverage, which typically excludes the ownership or operation of aircraft, including drones, our insurance requirements will also call for “**Aviation (Aircraft) Liability**”.

“**Aviation or aircraft liability**” is an insurance contract which insures the owner of the aircraft against loss sustained on account of having to pay damages for injuries to persons or property inflicted by or in the operation of such aircraft.

There are a variety of coverage components in an aircraft liability policy. At minimum, the policy must include:

1. Bodily injury liability – Protection for the insured against any bodily injury or death claims brought by members of the public other than passengers in the aircraft.
2. Property damage liability – Protection for claims from others for damage to property, including the loss of us of such property.

Other components of an aircraft liability policy include:

Passenger bodily injury liability; Medical Payments; Guest Voluntary Settlement

Note: These coverage components are non-applicable for drone use due to their nature (unmanned and no passengers).

**The minimum limits of insurance will be \$1,000,000 per occurrence with a \$2,000,000 aggregate.**

If the coverage is provided as an endorsement to a Commercial General Liability policy, the aircraft liability limits are to apply separately, or, the Commercial General Liability policy must have limits no less than **\$2,000,000** with a **\$4,000,000** aggregate.

In addition, the following Risk Management guidelines apply to the use of all drones:

All FAA requirements for the operation of an Unmanned Aerial System (Drone) apply and must be adhered to. If the contractor has a drone in its operation, they must operate within all federal regulations. It is very important to recognize that FAA regulations are subject to change and due to the recent emergence of drone related activity, laws and regulations will continue to evolve.

Our basic underwriting guidelines are:

1. A drone being used for commercial purposes must operate within the line of sight of the operator; operate only during daytime hours; no flights within 5 miles of any airport.
2. The owner/operator must possess:
  - a. A section 333 grant of exemption
  - b. A Certificate of Waiver or Authorization (COA)
  - c. An aircraft registered with the FAA, and
  - d. A pilot with an FAA airman certificate

In addition, California law prohibits entering the airspace of an individual in order to capture an image or recording of that individual engaging in a private, personal or familial activity without permission.

### **Summary**

We are in the midst of an evolution of the utilization of unmanned aerial systems (drones). The use of drones outside of traditional defense and military applications has increased exponentially. Many public entities will find significant benefits from their usage in a variety of ways. With those benefits comes the challenges of managing the emerging risk spectrum.

PLAN staff and our member agencies are very conscious of the risk imposed with the emergence of drones in our daily lives. The Risk Management Committee recognizes the inherent risk and also the value associate with this new technology. Implementation of the proposed recommendation within the context of our current best practices policy and procedures (Insurance Requirements in Contracts) demonstrates the organization's ongoing commitment to protecting the interests of our member agencies.

### **Reference Material**

1. Staff Report – “Unmanned Aerial Systems (UAS) – Pool Coverage Consideration Drones (J. Hill; March 28, 2016)
2. Association of Governmental Risk & Insurance Pools/National League of Cities; Risk Sharing Consortium Report – “Use & Regulation of Drones by Local Government Entities & Schools: Thoughts for Public Entity Pools.
3. Alliant – Insurance Requirements in Contracts (4/2016 Version 9).
4. California Film Commission – Requirements for Use of Unmanned Aerial Systems (UAS) When Filming on State Property