

DATE: July 8, 2014

TO: Judie Zimomra, City Manager

FROM: Kenny DiBiase, City Administrative Intern

RE: Reported Bicycle and Pedestrian Accidents 2013-2014 *

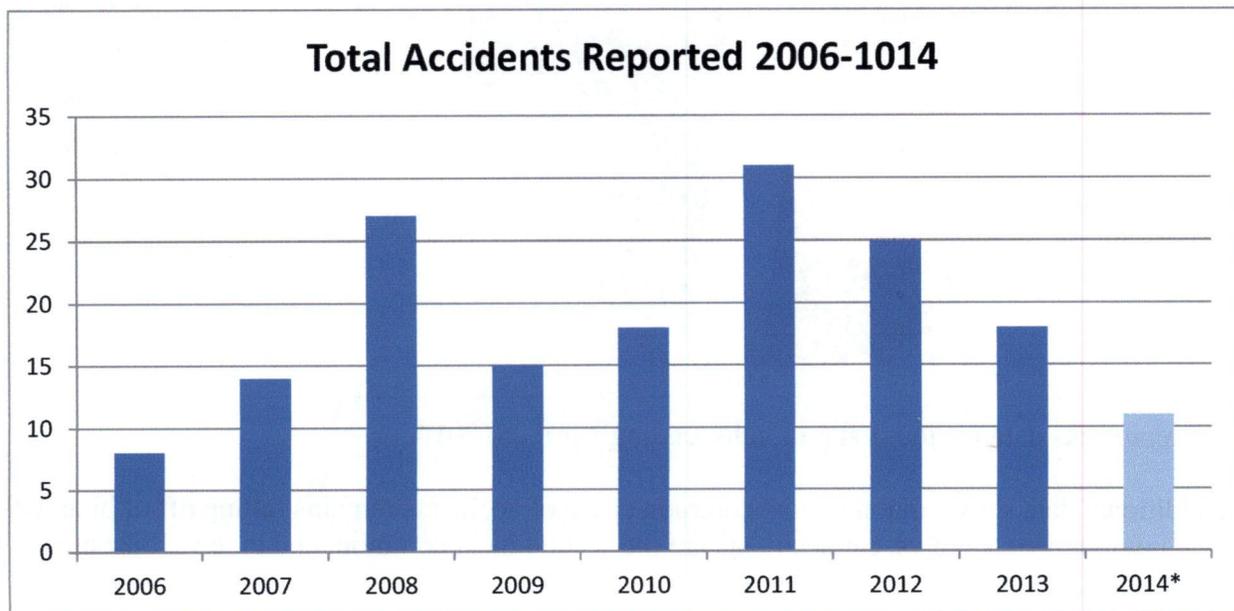
Bicycle Accidents on Shared Use Path:

For the third consecutive year, the City of Sanibel has analyzed all reported bicycle incidents. In 2012, a report was compiled and updated in 2013 by the City of Sanibel chronicling reported bicycle and pedestrian accidents along the community Shared Use Path. The Sanibel Police reports were read through and raw data was converted into a presentation describing the total incident volume, incident type, locations of incidents, ages, residency, injuries, and dates of involved parties were analyzed to differentiate between the various accidents. The purpose of this memo is to update the 2013 report.

Total reported incidents by year:

The graph below represents the total reported bicycle accidents by year for the past eight years.

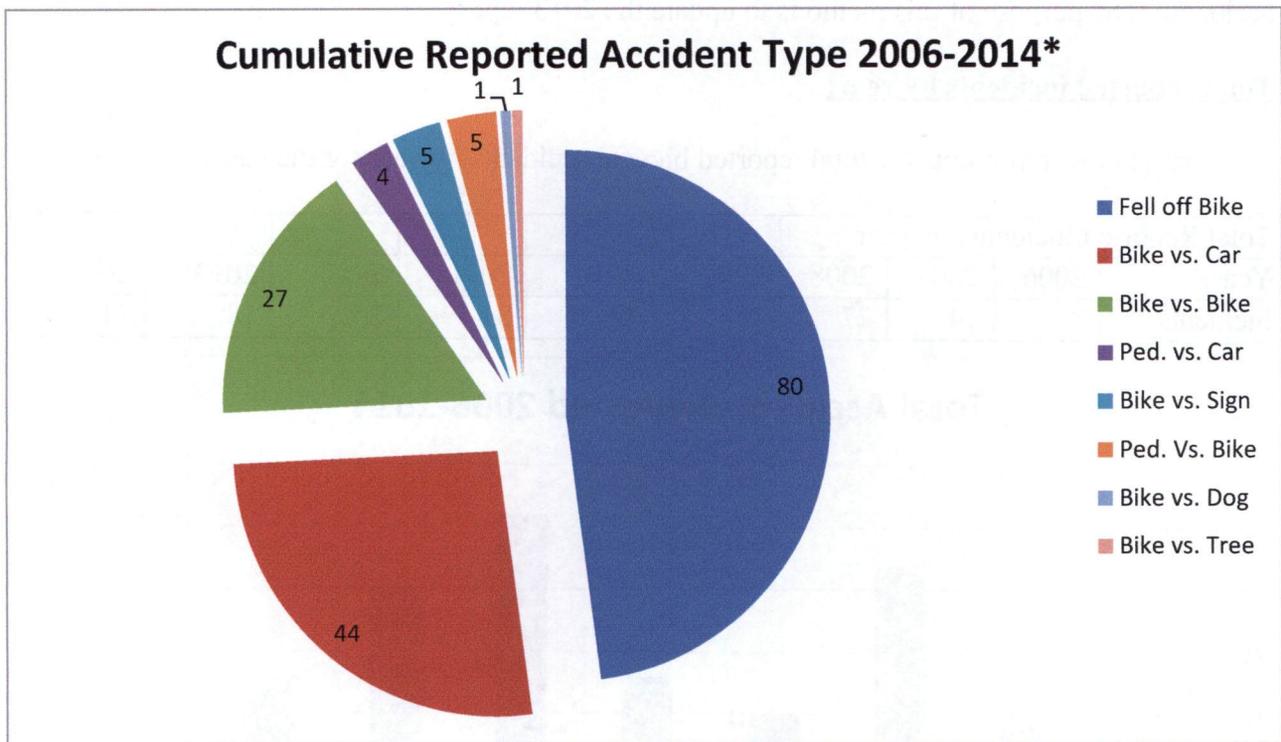
| Total Reported Incidents by year | | | | | | | | | |
|----------------------------------|------|------|------|------|------|------|------|------|-------|
| Year | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014* |
| Incidents | 8 | 14 | 27 | 15 | 18 | 31 | 25 | 18 | 11 |



*2014 represents data for the first 5 months, ending April 25, 2014

Type of Incident by Year:

| Incident Type | Fell off Bike | Bike vs. Car | Bike vs. Bike | Ped. vs. Car | Bike vs. Sign | Ped. Vs. Bike | Bike vs. Dog | Bike vs. Tree | Total Per Year |
|-------------------------------|---------------|--------------|---------------|--------------|---------------|---------------|--------------|---------------|----------------|
| 2006 | 5 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 8 |
| 2007 | 8 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 14 |
| 2008 | 19 | 6 | 1 | 1 | 0 | 0 | 0 | 0 | 27 |
| 2009 | 5 | 5 | 2 | 1 | 1 | 1 | 0 | 0 | 15 |
| 2010 | 5 | 5 | 3 | 1 | 2 | 1 | 0 | 1 | 18 |
| 2011 | 12 | 11 | 5 | 1 | 1 | 0 | 1 | 0 | 31 |
| 2012 | 12 | 5 | 5 | 0 | 1 | 2 | 0 | 0 | 25 |
| 2013 | 9 | 4 | 3 | 0 | 1 | 1 | 0 | 0 | 18 |
| 2014* | 5 | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 11 |
| Incident Total By Year | 80 | 44 | 27 | 4 | 5 | 5 | 1 | 1 | 167 |

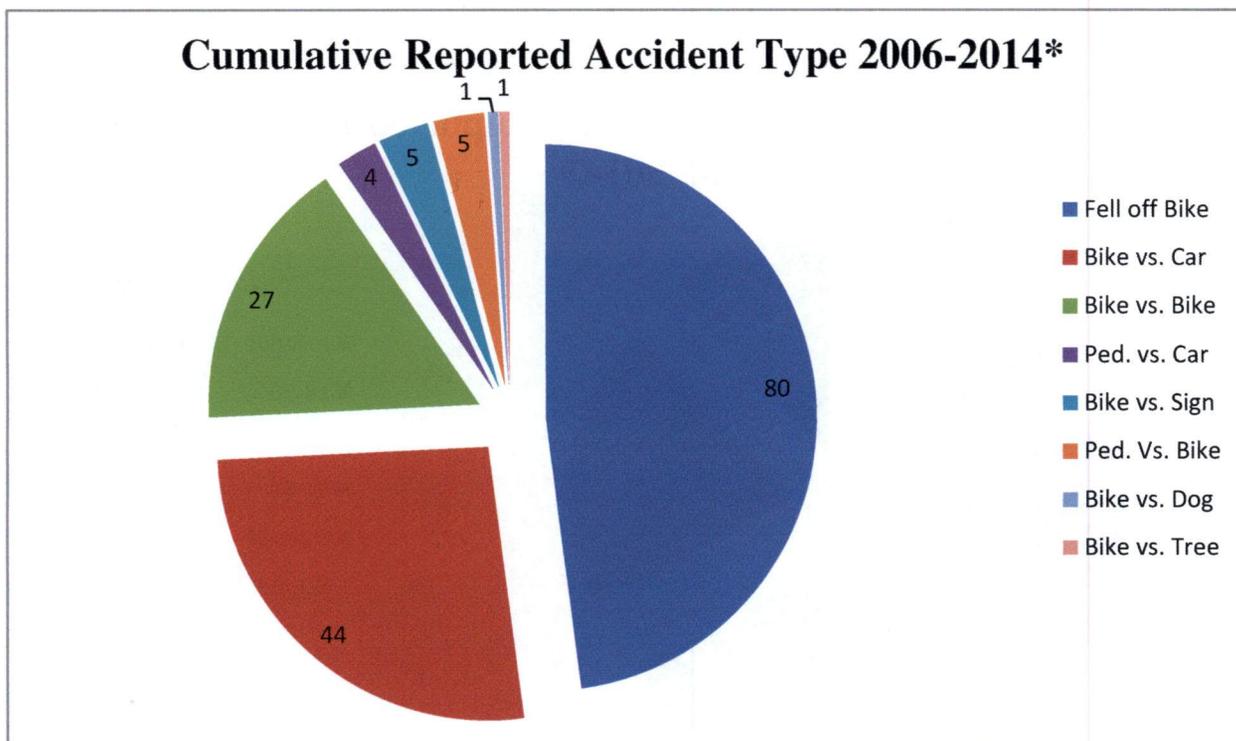


*2014 represents data for the first 5 months, ending April 25, 2014

The additional data shows that the most common cause of accidents remains falling off of bike with no vehicle involvement. Bike vs. car accidents are the second most common, and bike vs. bike are the third most common.

Location of Reported Incidents by Year:

| Locations of Reported Incidents by Year | Shared Use Path | Intersections | Parking Lots | Out of Jurisdiction |
|---|-----------------|---------------|--------------|---------------------|
| 2006 | 6 | 0 | 2 | 0 |
| 2007 | 9 | 2 | 3 | 0 |
| 2008 | 19 | 5 | 3 | 0 |
| 2009 | 10 | 3 | 2 | 0 |
| 2010 | 14 | 3 | 1 | 0 |
| 2011 | 23 | 4 | 4 | 0 |
| 2012 | 25 | 0 | 0 | 0 |
| 2013 | 13 | 3 | 1 | 1 |
| 2014* | 11 | 0 | 0 | 0 |
| Total | 130 | 20 | 16 | 1 |

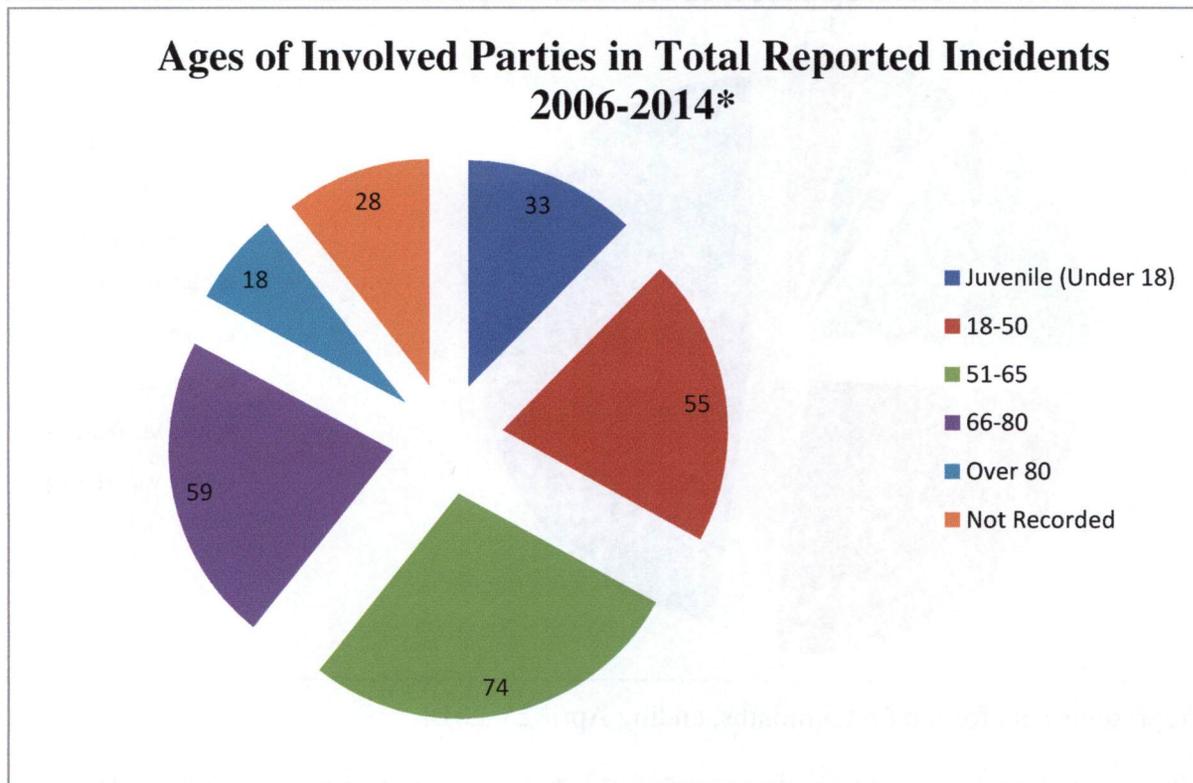


*2014 represents data for the first 5 months, ending April 25, 2014

The majority of the bicycle accidents that occur on Sanibel occur on the Shared Use Path. The most frequent cause of accidents being falling off a bike. The Shared Use Path is where the majority of bike traffic occurs and naturally represents the highest area of concentration for accidents.

Ages of Involved Parties in Total Reported Incidents by Year:

| Ages of Involved Parties in Total Reported Incidents Annually | | | | | | |
|---|---------------------|-----------|-----------|-----------|-----------|--------------|
| Ages Range: | Juvenile (Under 18) | 18-50 | 51-65 | 66-80 | Over 80 | Not Recorded |
| 2006 | 0 | 6 | 1 | 0 | 0 | 4 |
| 2007 | 3 | 3 | 7 | 6 | 0 | 3 |
| 2008 | 3 | 9 | 11 | 6 | 1 | 5 |
| 2009 | 2 | 5 | 7 | 5 | 3 | 3 |
| 2010 | 3 | 6 | 11 | 4 | 3 | 3 |
| 2011 | 2 | 7 | 18 | 13 | 3 | 5 |
| 2012 | 5 | 7 | 9 | 9 | 3 | 2 |
| 2013 | 3 | 5 | 3 | 11 | 1 | 2 |
| 2014* | 12 | 6 | 7 | 5 | 4 | 1 |
| Total: | 33 | 55 | 74 | 59 | 18 | 28 |

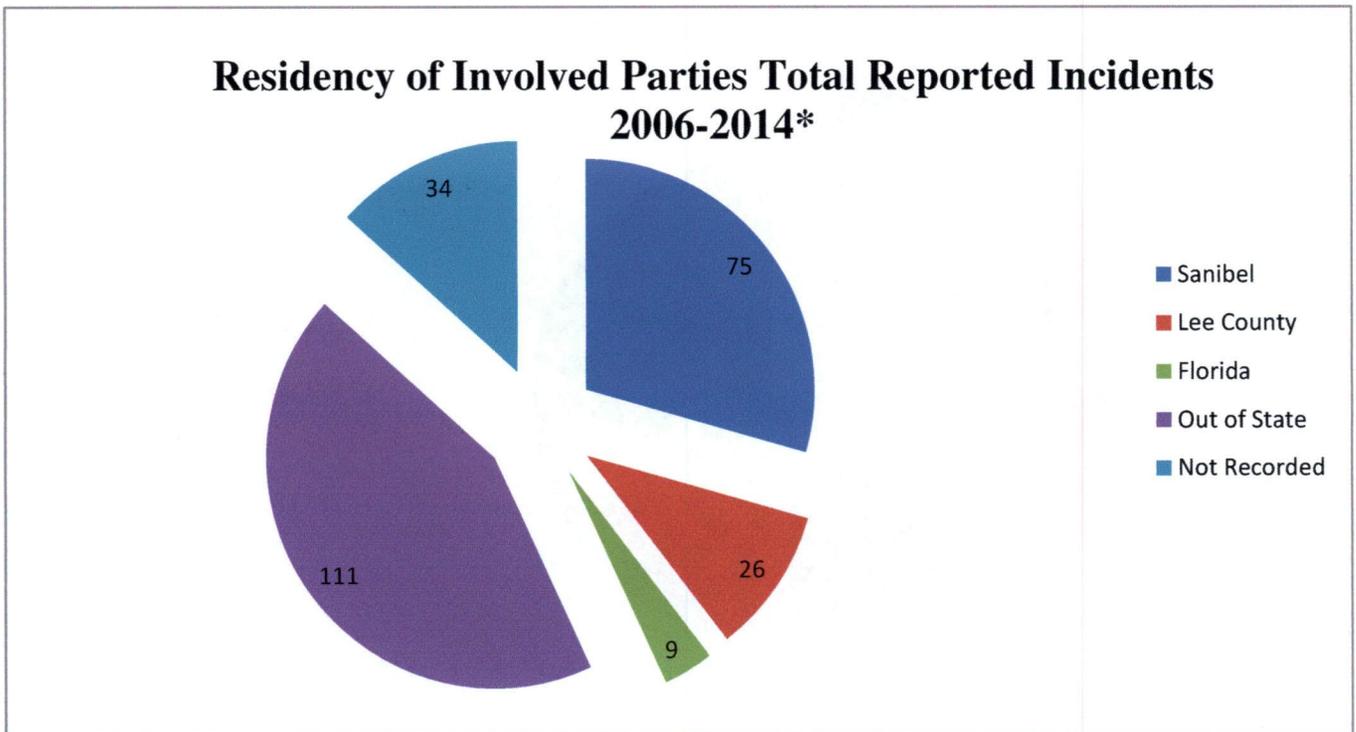


*2014 represents data for the first 5 months, ending April 25, 2014

The ages of the involved parties in accidents varies greatly and a somewhat equal distribution was present in the data. However, the largest group affected was those over the age of 50 and specifically between the ages of 51 and 65. Historically, this age group has consistently been the most affected.

Residency of Involved Parties in Total Reported Incidents Annually:

| Residency of Involved Parties in Total Reported Incidents Annually: | | | | | |
|---|-----------|------------|----------|--------------|--------------|
| Residency | Sanibel | Lee County | Florida | Out of State | Not Recorded |
| 2006 | 3 | 2 | 1 | 0 | 5 |
| 2007 | 9 | 1 | 0 | 10 | 2 |
| 2008 | 19 | 3 | 2 | 15 | 5 |
| 2009 | 7 | 2 | 0 | 15 | 1 |
| 2010 | 7 | 3 | 0 | 11 | 9 |
| 2011 | 13 | 8 | 1 | 19 | 7 |
| 2012 | 10 | 5 | 3 | 16 | 2 |
| 2013 | 9 | 1 | 2 | 11 | 2 |
| 2014* | 7 | 1 | 0 | 14 | 1 |
| Total: | 75 | 26 | 9 | 111 | 34 |

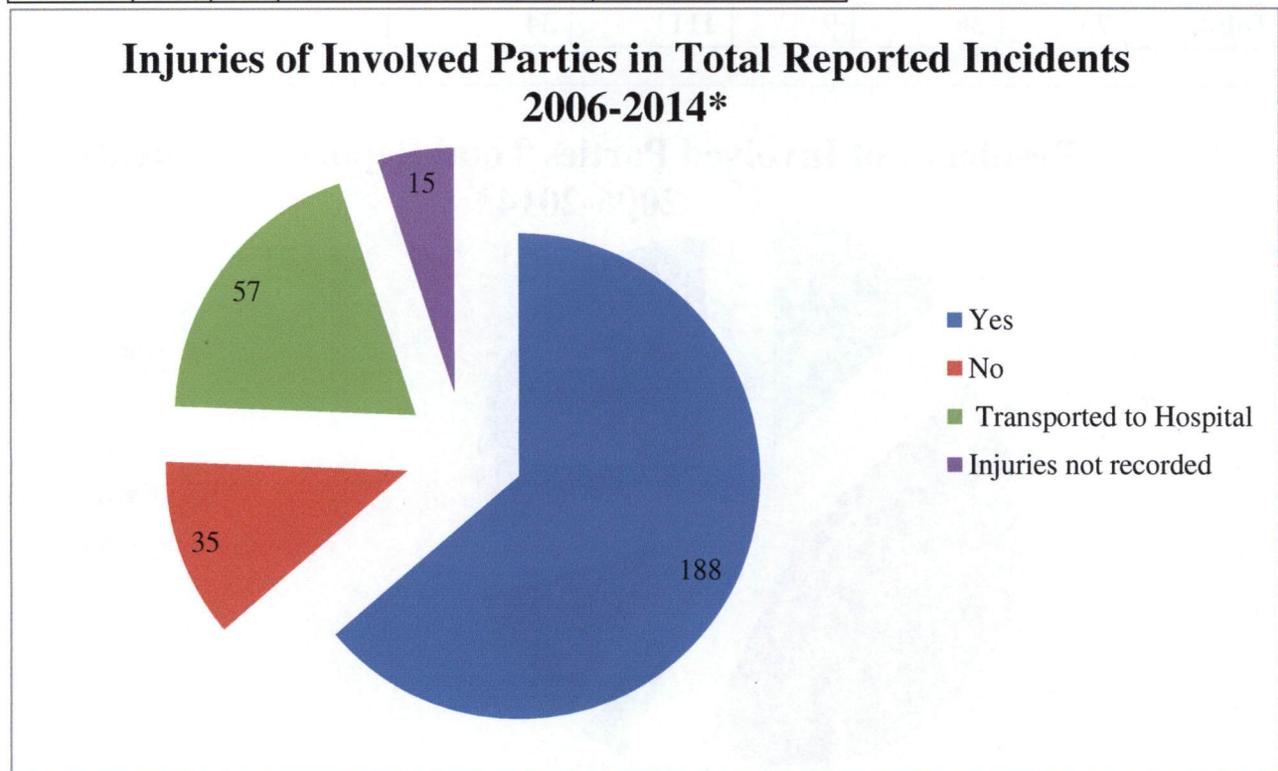


*2014 represents data for the first 5 months, ending April 25, 2014

The two most frequent types of users of the Shard Use Paths are Sanibel residents and out of state visitors.

Injuries of Involved Parties in Total Reported Incidents Annually:

| Injuries of Involved Parties in Total Reported Incidents | | | | |
|--|------------|-----------|-------------------------|-----------------------|
| Injuries | Yes | No | Transported to Hospital | Injuries not recorded |
| 2006 | 7 | 1 | 2 | 0 |
| 2007 | 9 | 1 | 3 | 4 |
| 2008 | 18 | 6 | 7 | 3 |
| 2009 | 10 | 3 | 6 | 2 |
| 2010 | 12 | 5 | 5 | 1 |
| 2011 | 20 | 7 | 12 | 4 |
| 2012 | 20 | 5 | 7 | 0 |
| 2013 | 12 | 6 | 10 | 0 |
| 2014 | 10 | 1 | 5 | 1 |
| Total: | 188 | 35 | 57 | 15 |

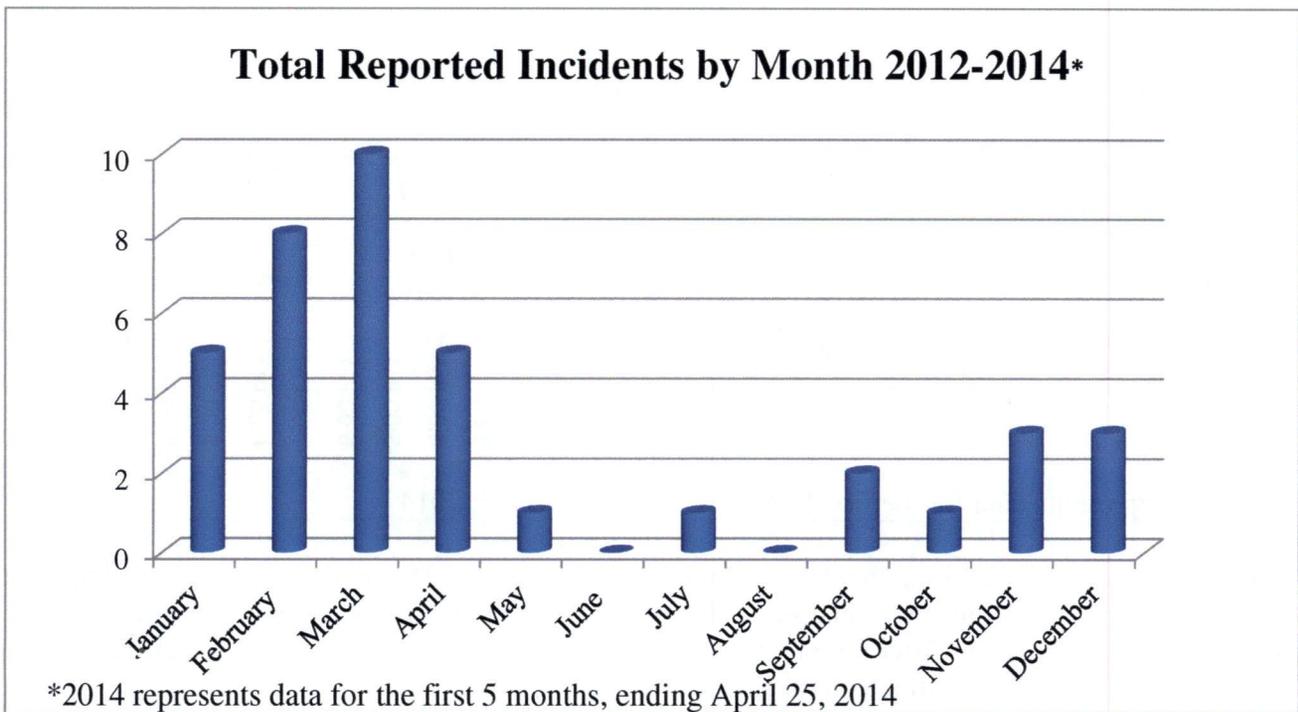


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Of the instances resulting in injuries, half of the injuries were minor and half required medical transport. Most injuries resulted in minor abrasions and lacerations, but several last year resulted in minor concussions.

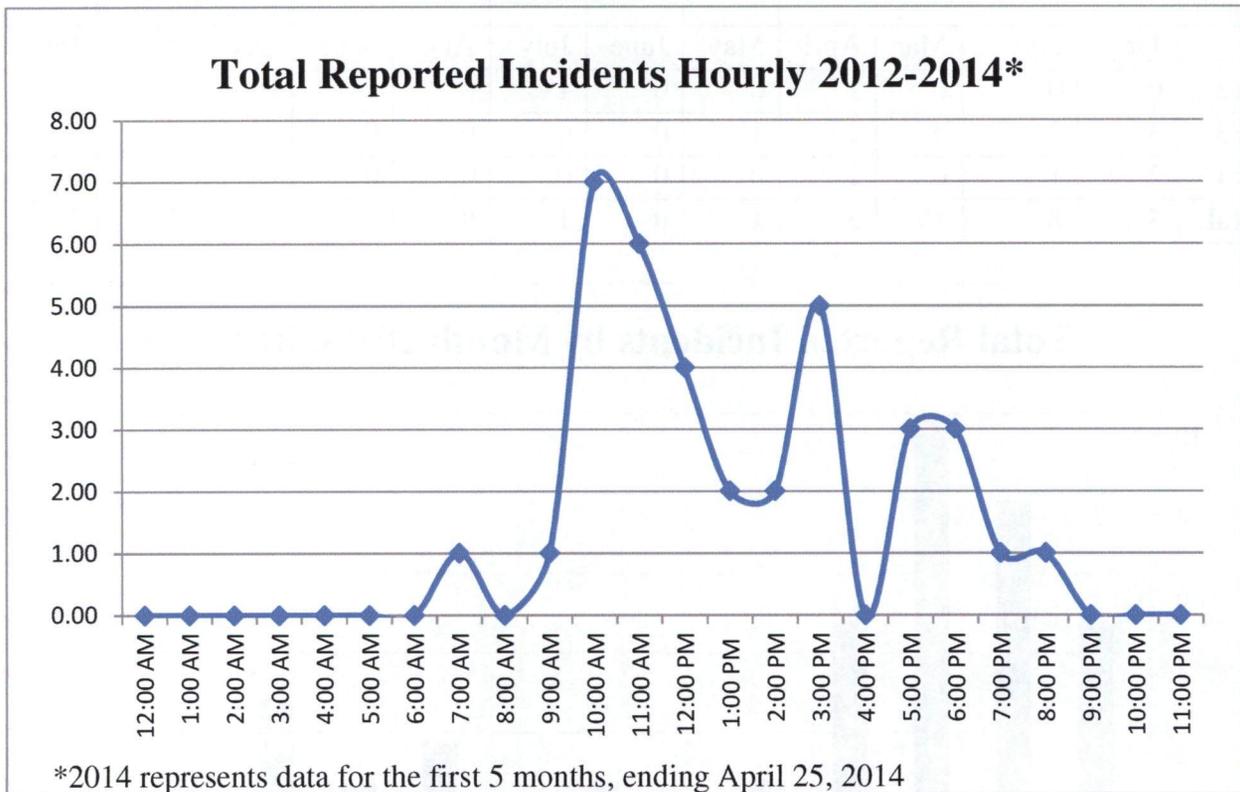
Dates of Reported Incidents by Month 2012-2014*

| Total Reported Incidents by Month | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |
|-----------------------------------|----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2012 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 3 |
| 2013 | 3 | 7 | 4 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 2014* | 2 | 1 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total: | 5 | 8 | 10 | 5 | 1 | 0 | 1 | 0 | 2 | 1 | 3 | 3 |



The majority of accidents occurred in the cooler months which coincides with peak usage of the Shared Use Paths. Also, with many residents only spending half of the year on the Island, many more are here in the first three months and then spend the winter months up north.

Times of Reported Incidents Hourly 2012-2014*:



Most accidents occurred during the day from the end of rush hour to the end of lunch hour. In the tenth hour of the day, the accident rates were at their highest. After 10 p.m., the number declined until approximately 3 p.m. where it spiked again. After 3 p.m., the amount of accidents declined and then spiked at 6 p.m. again. After 6 p.m., the number continued to decline.

Number of Tickets Issued in Result of Accidents:

| Tickets Issued for Reported Incidents 2006-2014* | |
|--|--------------------------|
| Year: | Number of Tickets Issued |
| 2006 | 0 |
| 2007 | 1 |
| 2008 | 4 |
| 2009 | 3 |
| 2010 | 4 |
| 2011 | 4 |
| 2012 | 0 |
| 2013 | 3 |
| 2014 | 1 |
| Total: | 19 |

*2014 represents data for the first 5 months, ending April 25, 2014

Changes Made to Shared Use Paths Since 2013

| Location | Roots/Cracks | Asphalt Resurfaced | Replaced signs/messages |
|------------------------------------|--------------|--------------------|-------------------------|
| E. Gulf Drive | 4 | 4 | 1 |
| Donax St | 6 | 6 | 0 |
| Middle Gulf Dr | 6 | 10 | 1 |
| Periwinkle- Lindgren to Tarpon Bay | 9 | 9 | 2 |
| Palm Ridge Rd | 1 | 1 | 0 |
| Dixie Beach Blvd. | 1 | 1 | 0 |
| Periwinkle- Lindgren to Lighthouse | 1 | 9 | 10 |
| Casa Ybel Rd | 4 | 6 | 1 |
| San-Cap Rd | 11 | 11 | 0 |
| W Gulf Dr- Tarpon Bay to Rabbit Rd | 7 | 13 | 1 |
| Total: | 50 | 70 | 16 |

Conclusions:

After examining Police reports and analyzing the data, bicycle accidents have increased. The total accidents from 2006 to 2014 are 167. The data from 2011 to 2013 continues a downward trend. Looking at the total cumulative report of bicycle accidents on the island since 2006, while there have been spikes in the accident frequency in 2008 and 2011, those spikes are becoming closer to the average amount, and accidents are slowly decreasing.

Over the past two years, the City of Sanibel has completed the following safety enhancements to the Shared Use Path system:

- East Periwinkle SUP widening completed in November 2013. Widened from 6' to 10' from Kings Crown to Lighthouse Beach parking lot.
- Dixie Beach SUP extension from Albatross Rd to Royal Poinciana Dr. (8' wide) completed in November of 2012.
- Bailey Road SUP extension from Periwinkle to just south of Bay Dr. (8' wide) completed in November of 2012.

Its recommended that this data continue to be analyzed annually and shared with the community.

Police Report Analysis

The very first Police report, starting on April 4, 2012, that involved the Shared Use Path involved not an accident, but a complaint that "SIGN WARNING VEHICLES OF BIKES IS DOWN." The Report States "WILL PUT IN CORRECTION REPORT FROR DPW-OFC- FELICIANO."

Location: 2075, PERIWINKLE WAY

Correction report form sent to DPW for repair on 4/4/12

2012

| Location of Accident | Date: | Incident Type: | Place: |
|-----------------------------|--------------------------|-----------------------|--|
| Shared Use Path | 4/4- 4:46 p.m | Bike vs. Ped | 671, E GULF DR |
| Shared Use Path | 7/30- 2:24 p.m | Fell off Bike | 3325, W GULF DR |
| Shared Use Path | 9/6- 7:01 a.m | Fell off Bike | SANIBEL CAPTIVA RD/MM 3.0 |
| Shared Use Path | 9/30- 3:22 p.m | Bike vs. Bike | SANIBEL CAP RD/GULF PINES DR |
| Shared Use Path | 11/17- 9:40 a.m | Bike vs. Skate | 1539, PERIWINKLE WAY |
| Shared Use Path | 11/21- 2:51 p.m | Bike vs. Bike | SAN-CAP / TARPON BAY |
| Shared Use Path | 11/24- 11:11 a.m | Bike vs. Bike | 701, OPRE AVE #E SECTOR |
| Shared Use Path | 12/2- 9:52 a.m | Fell off Bike | DIXIE BEACH (See report for full location) |
| Shared Use Path | 12/22- 5:44 p.m | Fell off Skates | 1676, M GULF DR |
| Shared Use Path | <u>12/26</u> - 11:43 a.m | Fell off Bike | PERIWINKLE WAY/MARTHA |
| | 10 accidents total | | |

2013

| Location of Accident | Date: | Incident Type: | Place: |
|-----------------------------|-----------------------|-----------------------|--------------------------|
| Shared Use Path | 1/26- 10:57 a.m | Fell off Bike | PERIWINKLE WAY/TULIP LN |
| Intersection | 1/28- 10:48 a.m | Car vs. Bike | 2163, PERIWINKLE WAY |
| Shared Use Path | 1/29- 10:33 a.m | Fell off Bike | 1451, MIDDLE GULF DR |
| Shared Use Path | 2/4- 6:17 p.m | Bike vs. Bike | 3840, SANIBEL CAPTIVA RD |
| Shared Use Path | 2/16- 11:24 a.m | Fell off Bike | 909, DIXIE BEACH BLVD |
| Shared Use Path | 2/17- 3:16 p.m | Fell off Bike | BOWMANS / SAN-CAP |
| Shared Use Path | 2/18- 12:14 p.m | Fell off Bike | 1700, PERIWINKLE WAY |
| Intersection | 2/20- 10:34 a.m | Car vs. Bike | PERIWINKLE WAY |
| Shared Use Path | 2/20- 10:44 a.m | Fell off Bike | CASA YBEL / ALGEIRS |
| Shared Use Path | 2/21- 12:17 p.m | Fell off Bike | 1, WILDLIFE DR |
| Shared Use Path | 3/10- 10:21 a.m | Bike vs. Bike | 5050, SANIBEL CAPTIVA RD |
| Intersection | 3/12- 3:44 p.m | Fell off Bike | 2255, WEST GULF DR |
| Shared Use Path | 3/17- 10:57 a.m | Bike vs. Bike | 2173 PERIWINKLE WAY |
| Shared Use Path | 3/17- 8:15 p.m | Bike vs. Bike | CITY PARK |
| Intersection | 4/3- 5:04 p.m | Car vs. Bike | 1451, MIDDLE GULF DR |
| Shared Use Path | 4/28- 6:59 p.m | Fell off Bike | 1451, MIDDLE GULF DR |
| Off Jursidiction | <u>5/24-</u> 3:04 p.m | Car vs. Bike | 3445 SANIBEL-CAPTIVA RD |
| | 17 accidents total | | |

2014

| Location of Accident | Dates: | Incident Type: | Place: |
|-----------------------------|---------------|-----------------------|----------------------------|
| Shared Use path | 4/25-11:15am | Fell off Bike | SAN-CAP RD |
| Shared Use path | 4/21-12:38pm. | Fell off Bike | MIDDLE GULF DR |
| Shared Use path | 3/30-1:37pm | Fell off Bike | SAN-CAP RD |
| Shared Use Path | 3/23-6:08pm | Fell off Bike | PERIWINKLE WAY/ LINDGREN |
| Shared Use Path | 3/15-11:17am | Bike vs. bike | DIXIE BEACH/PERIWINKLW WAY |
| Shared Use Path | 3/12-1:16pm | Fell off Bike | PERIWINKLE WAY/ PENSHELL |
| Intersection | 3/7-3:06pm | Car vs. Bike | 1157 PERIWINKLE WAY |
| Shared Use Path | 3/1-12:52pm | Fell off Bike | PERIWINKLE WAY |
| Shared Use Path | 2/18-3:41pm | Fell off Bike | PERIWINKLE WAY |
| Shared Use Path | 1/23-7:18pm | Fell off Scooter | 1975, PERIWINKLE WAY |
| Intersection | 1/13-11:04am | Car vs. Bike | 1699, PERIWINKLE WAY |

| Age: | Place of Residence: | Citations: | Injuries: |
|-------------|----------------------------|-------------------|----------------------------------|
| 2012 | | | |
| 54,82 | Out of state, Sanibel | None | No |
| 30 | Out of state | None | Yes, transported to the hospital |
| 63 | Lee County | None | Yes, not transported |
| 54,71 | Sanibel, Lee County | None | No |
| 47,14 | Florida, Sanibel | None | Yes, transported to the hospital |

| | | | |
|-------|--------------|------|----------------------------------|
| 11,46 | Out of state | None | Yes, transported to the hospital |
| 56 | Florida | None | Yes, not transported |
| 66 | Sanibel | None | Yes, transported to the hospital |
| 43 | Out of state | None | Yes, transported to the hospital |
| 16 | Out of state | None | No |

2013

| | | | |
|-------|-----------------------|------|----------------------------------|
| 79 | Sanibel | None | Yes transported to the hospital |
| 78,20 | Sanibel, Out of state | None | No |
| 85 | Sanibel | None | Yes, not transported |
| 37 | Sanibel | None | Yes, transported to the hospital |
| 72 | Out of state | None | Yes, transported to the hospital |
| 54 | Out of state | None | No |
| NR | NR | None | No |
| 47,15 | Florida, out of state | One | No |
| 66 | Out of state | None | Yes, transported to the hospital |
| 74 | Florida | None | Yes, not transported |
| 68,15 | Sanibel, out of state | None | Yes, transported to the hospital |
| 77 | Sanibel | None | Yes, transported to the hospital |
| 55,72 | Out of state | None | No |
| 35,70 | Sanibel, Lee county | One | Yes, transported to the hospital |
| 43,11 | Out of state, Sanibel | One | Yes, transported to the hospital |
| 56 | Sanibel | None | Yes, transported to the hospital |
| NR | NR | None | NR |

2014

| | | | |
|-----------------|-----------------------|------|----------------------------------|
| 64, 74 | Out of state | None | Yes, transported to the hospital |
| 16,48 | Out of state | None | Yes, not transported |
| 70 | Lee County | None | Yes, transported to the hospital |
| 6, 46 | Out of State | None | Yes, not transported |
| 61,80 | Sanibel | None | No |
| 99,78 | NR,Out of State | None | NR |
| 60,18,56,67,65, | Out of state, Sanibel | One | Yes, not transported |
| 68 | Sanibel | None | Yes, transported to the hospital |
| 41,47 | Out of state | None | Yes, transported to the hospital |
| 62,42 | Sanibel | None | Yes, transported to the hospital |
| 82,56 | NR | None | Yes, transported to the hospital |