



STAFF REPORT

ZB1.09

To: Board of Management

From: Chief Operating Officer

Subject: **HEALTH & SAFETY YEAR END REPORT**

Date: 2019-01-28

SUMMARY:

This report will brief the Board on the Toronto Zoo's Occupational Health & Safety Programs and safety initiatives carried out in 2018.

RECOMMENDATION:

It is recommended that this report be received for information.

COMMENTS:

The Health & Safety Year End Report for the period January to December 2018 is attached for your reference.

In 2018 there were 24 more employee accidents with 126 being recorded, compared to 102 accidents in 2017. The number of WSIB lost time claims also increased by 11 in 2018, with 31 claims filed versus the 20 claims filed in 2017. However, the number of lost days associated with WSIB claims decreased from 49 days in 2017, to 14 days in 2018. This has resulted in an increase to accident frequency, but severity rates have decreased. The Toronto Zoo has been surcharged with respect to our WSIB Neer statement \$180,825.54.

Our efforts in 2019 will continue to focus on reducing workplace accidents and making improvements to our health & safety programs to address issues of accident prevention and hazard recognition.

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ATTACHMENTS:
2018 Health & Safety Report

**TORONTO ZOO
2018 HEALTH & SAFETY REPORT**

JOINT HEALTH & SAFETY COMMITTEE

A) Committee Activities:

In 2018 the Toronto Zoo's Joint Health & Safety Committee (JHSC) held 11 meetings. A total of 36 new agenda items were raised through inspection or reporting systems. Twenty seven items were discussed and actions were taken to resolve issues by management staff.

Some key issues dealt with by the Committee included: Heat Stress, Emergency Drills and annual WHMIS audit.

Division Heads are briefed on current issues discussed at the JHSC on a regular basis.

B) Inspections, Orders & Charges:

On 2018-06-20, the Ministry of Labour (MOL) visited the Zoo. The visit was to follow-up with a critical injury that occurred on 2017-11-28, as "new information" had come to the inspector's attention. The original incident involved a staff member who was bitten while using a feed hopper. During this visit four orders were issued:

1. The employer shall produce all wildlife care training records for the injured worker.
2. The employer shall produce the Joint Health & Safety Committee minutes from 2017-03 to 2018-03.
3. The employer shall provide the document entitled "Animal Care Instructions for General Husbandry created prior to 2018-11-18."
4. The employer shall provide the document entitled "Animal Care Instructions for General Husbandry created after 2018-11-18."

The Toronto Zoo provided all the information requested to the MOL inspector. This item is still outstanding as of the date of this report.

On 2018-07-03, a Ministry of Labour inspector visited the site as they received an anonymous complaint stating that staff were not given any breaks and as a result two/three employees fainted during the heat. At the time of visit to the workplace, parties demonstrated that there were no reports of fainting due to the heat. During the visit the MOL Inspectors were advised/presented with the TZ Policy on Heat Stress that is based on the WSIB Heat Stress Awareness Guidelines for Ontario. This includes a work-rest cycle and cool/rest rooms that were provided in various locations across the zoo site. No orders were issued during this visit.

OCCUPATIONAL HEALTH & SAFETY TRAINING PROGRAMS

C) General Safety Training Programs:

In 2018, the Safety & Security Branch conducted training classes or supervised training for employees. The course type and total number of participants trained are identified below for your information.

<u>Course</u>	<u>Staff Trained</u>
Administered Seasonal Refresher Exams	263
Back Care & Repetitive Strain Injury	120
Seasonal Orientation	120
Health & Safety Awareness	100
WHMIS	90
Robbery Prevention	78
Safe Driving Program (New drivers)	50
Behaviour Management Systems	40
Contractor/Intern Health & Safety	35
Zoomobile Driver Training	32
Permanent Orientation	27
CVOR Training	25
Ladder Safety Training	18
Firearms Safety Training & Qualification	15
Standard First Aid/ AED/CPR C/HCP	13
Take Your Kid to Work Day	10
Bearspray Training	8
Defensive Driving	4
Respirator Fit Testing	2
Total Participants	1050

A total of 1050 participants attended training sessions conducted by of the Safety & Security staff.

SAFE DRIVING PROGRAM

D) Safe Driving Program – Evaluations:

In accordance with the Safe Driving Program, all Zoo and Food Service employees that are required to drive a vehicle on site must fulfill the following requirements that are administered by the Safety & Security Branch. Following the completion of a driver's abstract, the employee's supervisor orientates the employee to the vehicles he/she is required to drive. The Safety & Security Branch then administers a written exam to ensure basic knowledge of Zoo policies and road awareness. Lastly, an in-vehicle evaluation is conducted by Safety & Security's licensed Driving Instructor.

During 2018, a total of 50 new drivers were processed by the Safety & Security Branch. The majority of these were seasonal employees.

E) Zoomobile Training:

An in-house Zoomobile Training Program has been in operation since 2003. This program includes classroom training combined with field experience and driver evaluations conducted by the Safety & Security Driving Instructor.

During 2018, four courses were held for 32 returning and new employees participating in this program.

F) Defensive Driving Training:

The Defensive Driving Program is open to all Toronto Zoo drivers and includes theoretical and practical classroom discussions concerning driving habits. The intention of the Defensive Driving

Program is to make drivers aware of issues that will aid in improving their personal driving skills. Drivers that have had a motor vehicle collision are directed to attend these training sessions. Four staff took part in the Defensive Driving Program in 2018.

G) Motor Vehicle Collisions:

In 2018, there were 33 motor vehicle collisions, compared with 31 in 2017. Of the 33 collisions, 32 were deemed preventable. Eighteen resulted from failure to correctly judge surroundings, nine from failing to be aware of surroundings, four from failing to maintain sufficient care of vehicle, and one from failing to drive to weather conditions. Most collisions reported were single vehicle incidents where only minor damage was reported as drivers made slight contact with rocks, gates, fences, garbage cans, etc. This year nineteen of the 33 reported collisions occurred to full time staff who have been driving Zoo vehicles for a period of time. There was an increase of 4 motor vehicle collisions in the Guest Operations Branch involving Zoomobiles. Most occurred at the Eurasia Drive Thru, as the gate had been malfunctioning and drivers failed to judge surroundings. Additional emphasis continues to be placed on driver training to focus on the task at hand and to be more aware of their surroundings.

The 33 collisions occurred in the following units: Horticulture (14), Guest Operations (10), Safety & Security (3), Facilities & Services (2) Wildlife Care (2), Wildlife Nutrition (1), and Development (1).

The areas that had increased motor vehicle collisions in 2018 when compared to 2017 were Guest Operations (10 vs 6), Horticulture (14 vs 12), Development (1 vs 0). Areas that decreased were Wildlife Care (2 vs. 4) and Wildlife Health (0 vs 1). The following areas remained consistent when compared to the previous year, Facilities & Services with two and Safety & Security with three.

OCCUPATIONAL HEALTH & SAFETY PROGRAMS

H) Policy & Program and Testing Initiatives

In 2018 we continued to provide training, education and policy review regarding hazard control with respect to how the work environment impacts health and safety including exposure to allergens and biological pathogens. Such training includes, Scent Awareness in the Workplace, Tick/Lyme Disease Prevention and Exposure to Extreme Weather Conditions.

Awareness about Tick/Lyme Disease Prevention and Exposure was addressed due to an increase of tick sightings by staff during the summer of 2018. Information and guidelines were posted on the Health & Safety Bulletin boards regarding ticks and Lyme disease. Directors, Managers and Supervisors were provided information on ticks and made aware of providing staff with DEET to prevent tick bites. Staff have also been reminded to report tick bites and sightings to their Supervisor.

In 2018 we introduced a new Cold Stress Policy SAFE-032 intended to protect workers from potential effects of overexposure to cold temperatures when working outdoors. The new Cold Stress Policy aligns itself with the Heat Stress Policy SAFE-031 to ensure the well-being of staff during all types of extreme weather conditions

An Online Health and Safety Awareness training course was introduced to employees on 2018-09-24 to be completed by 2019-01-31. The training provides both workers and supervisors basic Health and Safety training. This online training will be offered to employees to be completed on

their own time rather than in class training, which will alleviate some challenges within operating requirements. In class training will still be offered for employees that require further assistance or have no computer access.

We know intuitively that healthy workplaces contribute to an individual's physical, mental, spiritual, and social well-being. Conversely we know that an unhealthy workplace can result in employee stress and high costs to employers. Studies have demonstrated that providing staff with a supportive environment to promote work/life balance and promotion of stress reduction strategies have a positive impact on their workforce. The Toronto Zoo recognizes the value in providing staff access to such Wellness Programs and currently offers its staff many health and wellness benefits through the First Aid & Family Centre, through our robust health benefits package and through our Employee & Family Assistance Program. In 2018, we adopted an Employee driven wellness program process which promotes a more holistic approach to health promotion in the workplace. We look forward to expanding this program in 2019.

The Safety & Security Branch continues to strive towards increasing safety awareness among staff as well as visitors. Programs with respect to public and staff site inspections, defensive driving, and general safety awareness continue to be delivered and developed.

I) New & Pending OH&S Developments:

The Workplace Hazardous Materials Information System (WHMIS), has been Canada's hazard communication system for workplace chemicals since 1998. The system has changed to adopt new international standards for classifying hazardous chemicals and providing information on labels and safety data sheets. The new standard is part of the Globally Harmonized System for the Classification and Labelling of Chemicals (GHS). The new WHMIS 2015 standards had to be phased in by the end of 2018. We have updated our WHMIS training to include information pertaining to the new GHS changes and have provided 6 classes to 90 staff members in 2018 to ensure all staff are up to date on the information. The Hazardous Material Policy, Safe-005 is being updated to meet the changes of WHMIS 2015.

ACCIDENT HISTORY

In 2018, there were a total of 126 employee accidents. This is an increase of 24 when compared to the employee accidents in 2017. When comparing 2018 to the previous year, it is necessary to take into account the time period of May 11 to June 12, 2017 when the Zoo was closed for the duration of a labour disruption. Taking into consideration the labour disruption in 2017 and the same time period in 2016 where 34% of reported accidents occurred during that time, in 2018 we would have expected the accidents to remain consistent with the previous year. The charts and graphs in this report will provide a means of comparing accident frequencies, injury types, as well as lost time, and claims management.

J) Year End Branch Accident Summary:

The Branch Accident Frequency Rate (BAF) is determined by dividing the number of accidents a Branch has by the budgeted number of full time equivalent employees (FTE's including permanent and non-permanent staff). The BAF can be useful in identifying accident trends while excluding the effect of staffing levels and, is therefore, a relevant manner of comparing reported accidents by Branch.

<u>Branch</u>	<u>2018 YTD</u>	<u>% of Total</u>	<u>2017 YTD</u>	<u>% of Total</u>
Wildlife Care	43	49	37	42
Guest Operations	29	100	16	47
Horticulture	15	44	18	52
Facilities & Services	15	24	11	18
Wildlife Health	6	35	3	20
Education	5	23	2	9
Member & Guest Services	3	11	3	11
Marketing	3	23	3	23
Projects & Exhibitory	3	38	0	0
Financial Services	1	8	2	16
Safety & Security	1	4	4	14
Graphics	1	42	0	0
Wildlife Nutrition Centre	1	13	0	0
Conservation, Education & Wildlife	0	0	3	15
Totals	126		102	

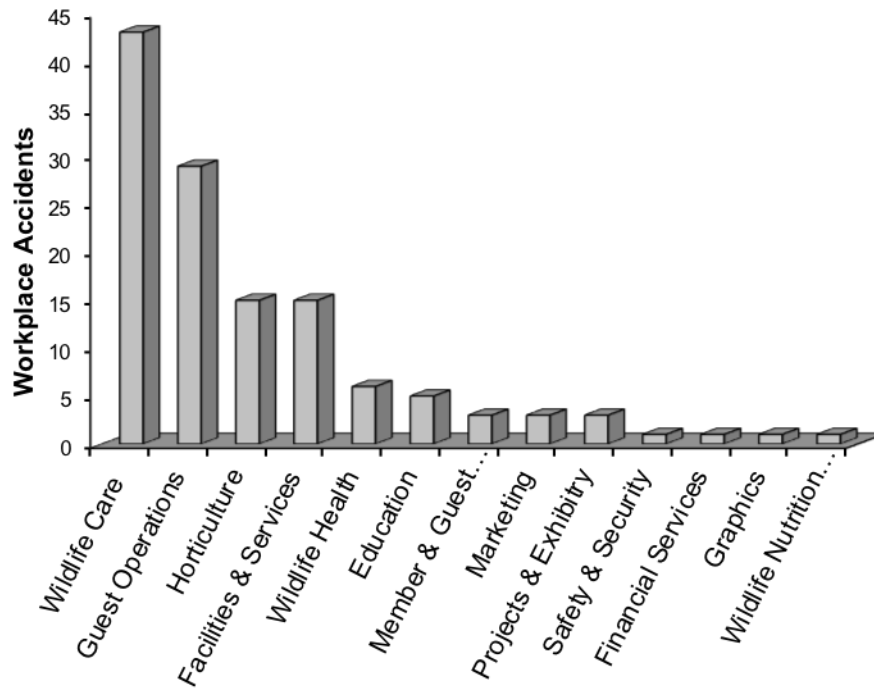
Decreases in the frequency of accidents in 2018 versus 2017 were reported by Horticulture (15 vs 18), Safety & Security (1 vs 4), Finance (1 vs 2), Conservation, Education & Wildlife (0 vs 3),

Increases in the frequency of accidents in 2018 versus 2017 were reported by Wildlife Care (43 vs. 37), Guest Operations (29 vs 16), Facilities & Services (15 vs 11), Education (5 vs 2), Wildlife Health (6 vs 3), Projects & Exhibitory (3 vs 0), Graphics (1 vs 0), and Wildlife Nutrition Centre (1 vs 0).

Areas that remained consistent when compared to the previous year are; Marketing (3 vs 3) and Member & Guest Services (3 vs 3).

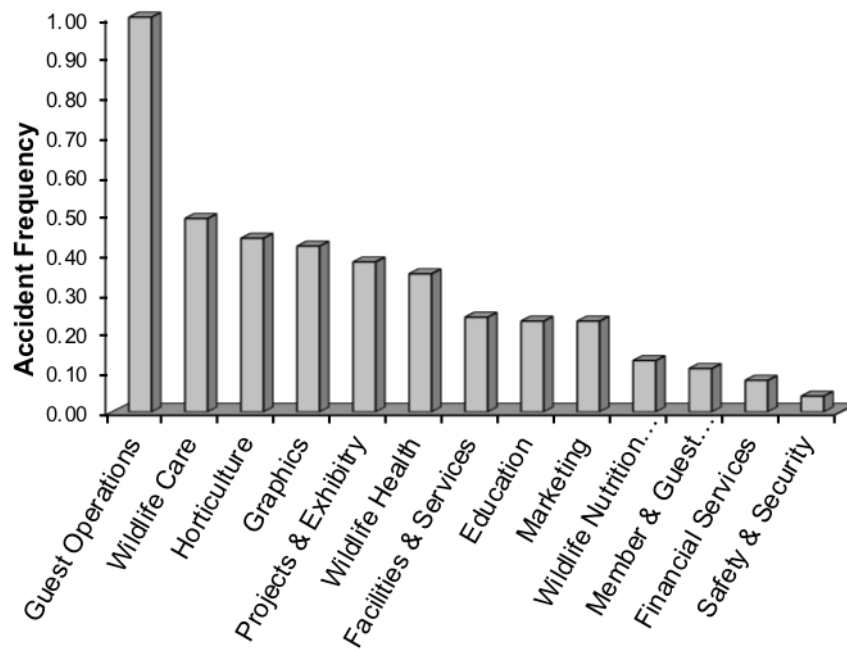
2018 Branch Accident Summary

Figure 1



2018 Branch Accident Frequency

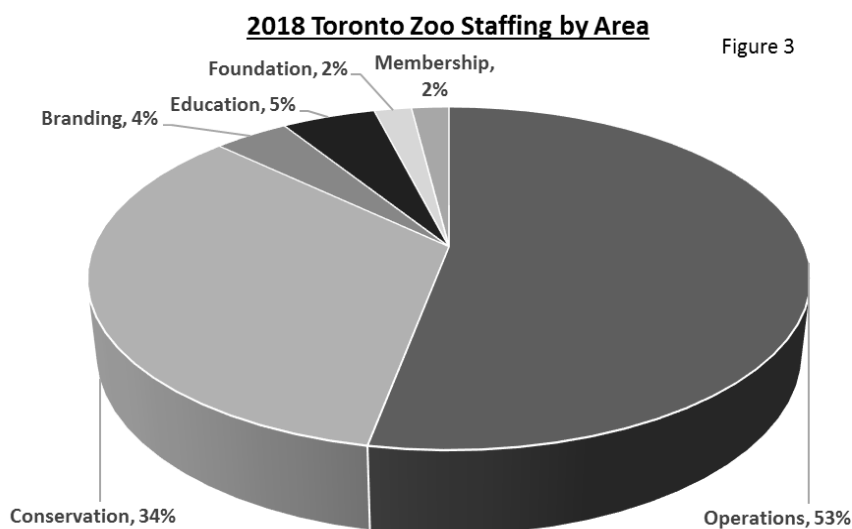
Figure 2



K) 2018 Accidents by Type:

<u>Type</u>	<u>2018</u>	<u>Percent</u>	<u>2017</u>	<u>Percent</u>
Contact	49	38.9	36	35.3
Strain	29	23.0	15	14.7
Exposure	20	15.9	5	4.9
Slip/Fall	16	12.7	20	19.6
Animal Action	12	9.5	26	25.5
Totals	126	100	102	100

For context purposes refer to Figure 3 which demonstrates the staffing allocation in each area of the Toronto Zoo.



The categories of Contact, Strains and Exposure related accidents realized an increase in 2018 while Animal Action, and Slip/Falls saw a decrease in accidents.

Contact related injuries increased by 13 when compared with the previous year. When examining these injuries, no common elements that would indicate a need for further training or implementation of personal protective equipment were found. Incidents are primarily all minor in nature and involved staff making contact with objects in their surrounding work areas that would normally be found there and pose no obvious safety concerns. These types of injuries relate to how staff interacts with their work environment.

Strain injuries increased by 14 with those reported in 2018, the majority of these injuries were a result of performing work duties in an awkward posture, overexertion or from repetitive use over time. Such injuries are referred to as Repetitive Strain injuries (RSI) or Muscular Skeletal Disorders (MSD), which is the preferred term. These soft tissue injuries are caused not just by repetition, but also can be caused by force, rapid movement, overuse, static loading, excessive strain, uncomfortable positioning of limbs or holding one's posture in an unnatural, constrained or constricted position for prolonged periods. Ergonomic Assessments and Job Hazard Analysis of work areas and duties will assist in identifying tasks and duties which result in strain injuries and

thus prevention controls can be implemented. In addition to this, mandatory Back Care/MSD Awareness training will continue in 2019.

Exposure related incidents increased by 15 when compared with the previous year. These types of injuries generally include debris in eyes, allergic reactions, and electrical shock from low voltage fencing. In 2018, the increase of exposure injuries were largely a result of an increase in heat alert days and environmental factors; high temperature days and an increase of awareness resulted in an increase in heat related reporting.

Slip/fall accidents have decreased by four in 2018. Four of these accidents occurred during the winter months and were largely the result of ice and snow. Efforts including increasing staff awareness and use of ice/snow cleats, which were initiated with success in 2017, will be emphasised again prior to the winter season. The remainder of the accidents occurred when staff tripped over items or while walking off the pathways.

Animal Action related injuries decreased by 14 in 2018. These types of injuries primarily involved Wildlife Health and Wildlife Care staff who were providing care for smaller animals, outreach animals and working around them in exhibit. Some of these types of injuries are inevitable given the close contact requirement when caring for this animal group.

Efforts will continue into 2019 with increased emphasis on reducing all workplace related injuries through training and awareness.

L) Toronto Zoo Lost Time Accidents Rates:

Accident Frequency and Accident Severity are used to monitor increases or decreases of accidents in the workplace.

Accident Frequency Rate (AFR) is calculated based on the number of new lost time injuries multiplied by 200,000 hours, representing the average total hours worked for 100 workers. This is divided by the number of total budgeted hours. This represents the number of disabling injuries per 100 workers, which can be used for comparison purposes.

Accident Severity Rate (ASR) is calculated by the total number of lost days multiplied by 200,000 hours representing the average total hours worked for 100 workers. This is divided by the number of total budgeted hours. Severity relates the amount of the lost time to the number of accidents for comparison purposes.

<u>Year</u>	<u>Accident Frequency Rate</u>	<u>Accident Severity Rate</u>
2013	2.8	20.5
2014	2.3	7.2
2015	2.6	5.2
2016	3.2	9.4
2017	1.5	11.9
AVERAGE	2.5	10.8
2018	2.2	3.5

Accident Frequency of 2.2 for 2018 has increased from 1.5 in 2017 and is below the five year average of 2.5. The Accident Severity of 3.5 for 2018 has decreased from 2017 and is below the five year average of 10.8.

One method of reducing the Accident Severity is to decrease the time workers are off after a workplace injury as well as reducing the overall claims. Active monitoring of our Early and Return to Work program and pursuing the return of injured workers helps us manage the program and decrease accident severity.

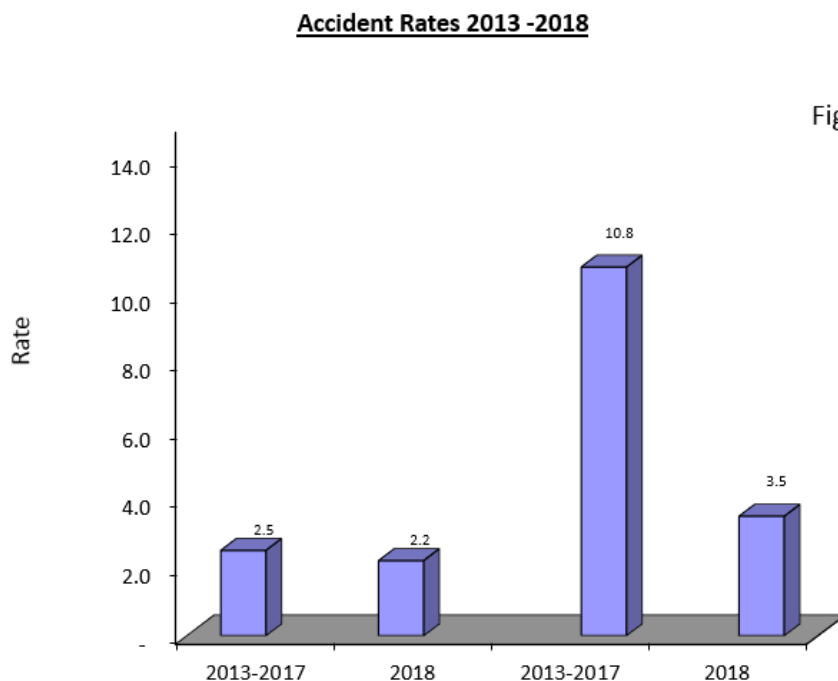


Figure 4

WORKPLACE SAFETY AND INSURANCE BOARD (WSIB) SUMMARY

In 2018 there were a total of 31 claims submitted to the Workplace Safety & Insurance Board (WSIB), of which nine WSIB claims resulted in 14 days of lost time. When we compare the total number of lost time claims in 2018 to the total number of lost time claims in 2017, we find that the claims that incurred lost time has increased by three and the total number of lost time days has decreased from 49 days in 2017 to 14 days in 2018. All of the nine claims were all less than five days in duration.

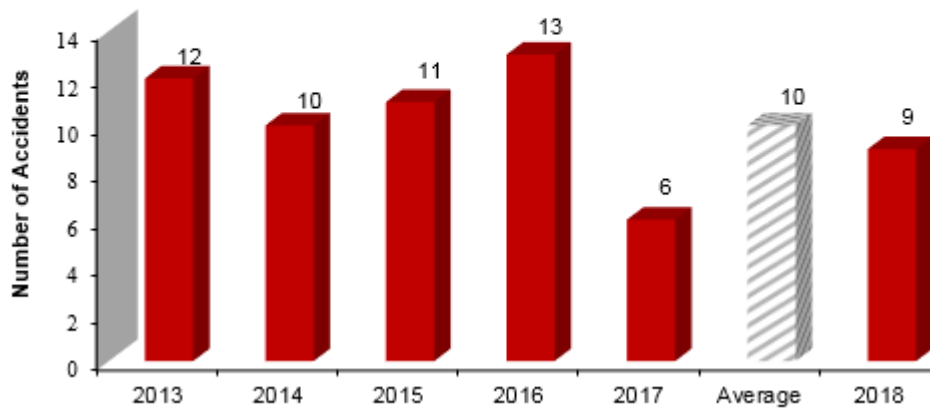
M) Lost Time Accidents by Branch:

<u>Branch</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Wildlife Care	4	4	4	3	2	3
Horticulture	2	2	0	2	1	3
Facilities & Services	3	1	4	4	2	2
Education	1	0	1	0	0	1
Safety & Security	0	1	0	1	0	0
Public Relations	0	1	0	0	0	0
Wildlife Nutrition	0	1	0	0	0	0
Guest Operations	1	0	0	2	0	0
Curatorial & Records	0	0	0	0	1	0

Finance	0	0	1	0	0	0
Graphics	0	0	0	1	0	0
Totals	12	10	11	13	6	9

Lost Time Accidents 2013-2018

Figure 5

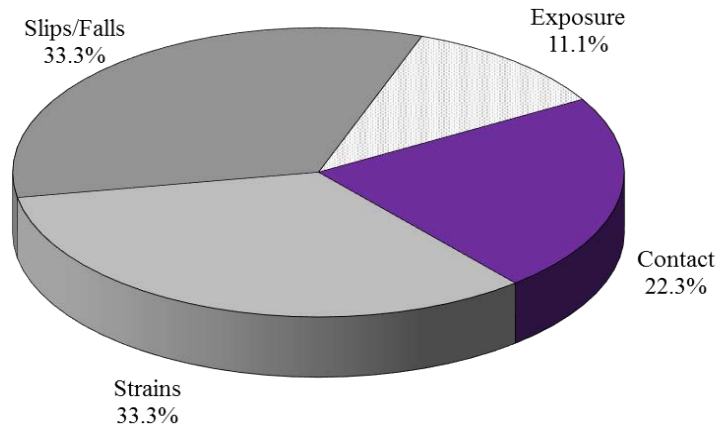


N) Lost Time Accidents by Type:

<u>Type</u>	<u>2018</u>	<u>Percent</u>	<u>2017</u>	<u>Percent</u>
Strains	3	33.3	3	50.0
Slips/Falls	3	33.3	1	16.6
Contact	2	22.3	0	0
Exposure	1	11.1	1	16.6
Animal Action	0	0	1	16.6
Totals:	9	100.0	6	100.0

2018 Lost Time Accidents by Type

Figure 6



O) Modified Work Summary

Of the 31 WSIB claims, two claims were denied. 20 claims had no lost time. A total of nine staff incurred lost time equaling 14 days. Of those 29 accepted claims, 14 claims required modified work upon their return. Thirteen of the 14 claims requiring accommodations were provided with suitable work in their own work areas. One claim required accommodations in another work area because their restrictions were unable to be accommodated within their own work area. All employees returning on modified work plans have now returned to full and regular duties.

P) WSIB Cost Summary:

Under the WSIB, New Experimental Experience Rating Plan (NEER) employers receive rebates or surcharges based on their accident frequency and length of the accident claims. Calculated at the end of September, and using historical data for the past four years, the current results are compared to current trends within the rate group.

The NEER firm summary statement for 2018-09-30 shows a total surcharge of \$180,825.54. Our performance in 2017, with NEER costs totalling \$149,241.59 are a direct result of one claim that has cost \$136,580.65 in claims costs.

Every year, the WSIB sets a premium rate for each rate group based on the collective work-related injury experience of its members. This rate covers the costs of new injuries and overhead expenses, and the cost of paying off the unfunded liability. The rate for 2018 was set at \$2.15 per \$100.00 which was an increase from our 2017 WSIB rate of \$2.05 per \$100.00. This increase is a result of an overall WSIB Rate Group performance. Our premium rate has been set for \$1.52 for 2019 based on this year's performance.

Q) 2019 – Targeted Efforts

In 2019, the Safety & Security Branch will continue to focus efforts on training, awareness and assisting various areas/branches of the Toronto Zoo in designing programs, specific objectives include:

- Develop our Health & Safety Management programs to promote integration of Safety & Security into the culture of all Zoo staff.
- Review and update Occupational Health & Safety Policies.
- Continue diligence with Return to Work initiatives in an effort to reduce employee lost time.

It is hoped that these efforts will maintain legislative compliance and continue to improve the overall workplace safety conditions at the Toronto Zoo.

S. Alexander
Manager, Safety & Security