



SOLID WASTE ASSOCIATION OF NORTH AMERICA 2017 SAFETY AWARD APPLICATION BIGGEST SAFETY IMPROVEMENT COLLECTION & TRANSFER DIVISION

SUBMITTED BY:

Fairfax County Solid Waste Management Program

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SWANA Membership Number 801658

Fairfax County, Virginia

Population 1.2 MM



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SOLID WASTE ASSOCIATION
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EXECUTIVE SUMMARY

Safety is the paramount value of the Fairfax County Solid Waste Management Program (SWMP). The agency was determined to focus on this value to improve its safety record, which showed an unhealthy trend toward increasing accidents and injuries. The SWMP's dedication to improving its safety record was guided by the extraordinary efforts of the SWMP Safety Team, a re-education program for staff, and an observable re-dedication to safety by agency management. The SWMP took safety out of the shadows with staff, asking difficult questions and no longer settling for the status quo. The overhaul of the safety program resulted in significant reductions in safety statistics driven by operational improvements: Where the SWMP averaged closer to 40 annual recordable injuries in 2015, there were only seven in 2016. And most importantly, workers now see they hold the key to their own safety—to ensuring they go home safely each night.

SECTION 1: DESCRIBE YOUR SAFETY PROGRAM, INCLUDING USE OF SAFETY MONDAY AND OTHER INFORMATION PROVIDED BY SWANA.

Plagued with historically high numbers of employee injuries in its Collections Division, the Fairfax County SWMP saw that it needed a fresh approach to addressing risky behaviors and improving worker safety. What was clear was what had been done in the past wasn't working. In 2013, a newly reorganized program emerged—with a director and safety program manager who were determined to see the tide turn. The first step was to have an independent consultant review our operation and provide an unvarnished assessment. The second was to put the right resources to the problem, including hiring a new safety analyst with extensive fleet management experience, an “assistant” with years of solid waste management collections experience, and a willingness to try new things without fear of failure. Creativity led and success followed.

Change is never easy, but the safety team began to find a toe-hold with staff and never let up. The SWMP learned that accountability wasn't a four-letter word—that an organization could hold someone accountable for doing something good too. The phrase “safety starts with you” became more than a saying, but a rallying cry for the war on risky behaviors in the workplace. Because so much change was needed with the realization that it couldn't all be done at once, the organization set about revising its program with a focus on five major components: training and evaluation, staff engagement; risk reduction, monitoring and coaching, and metrics and accountability.

Training and Evaluation: While training typically cannot commence until a new employee's first day, SWMP safety staff began pre-screening prospective drivers before they were invited to sit down for an interview—ensuring that they could perform pre-trip inspections and had the necessary driving skills. Doing this ahead of time saved the division a lot of time and effort and

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greatly improved its hiring success rate. An extensive first day new employee safety orientation is a part of everyone's onboarding process. All new drivers attend the safety analyst's *Avatar Fleet Professional Driver Training Program* and complete a competency assessment before being released to drive on their own. All SWMP supervisors are required to complete a 16-hour in-house

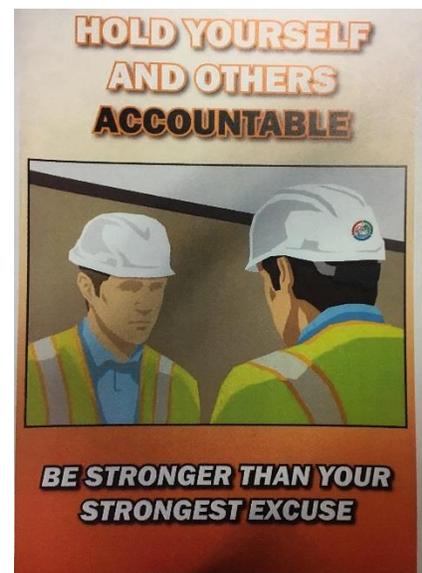


Safety Leadership course developed to focus on eight critical actions of a safety leader: establish safety activity goals; speak safety at every meeting; identify hazards and controls; train staff on safety; involve staff in accomplishing the goals; participate in

incident investigations; coach safe behavior; and measure and communicate safety activity status. Teaching supervisors to become more—to be leaders as well—was critical to addressing safety accountability issues.

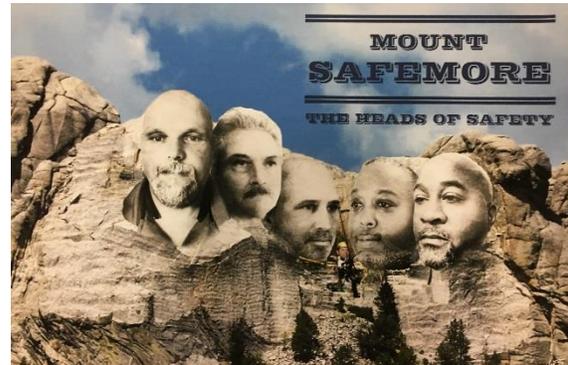
The SWMP Collections Division conducts and documents numerous safety trainings and annual refresher courses a part of its monthly staff safety meetings, including personal protective equipment use and maintenance, slips, trips, and falls, lockout/tagout, fatigue management, distracted working, safe cart retrieval, proper backing procedures, waste handling, hazard recognition, proper lifting, and pre- and post-trip inspections to name a few. The SWMP is also currently working to get all its front-line supervisors OSHA 10-hour safety certifications. Training and assessment never ends during an employee's tenure here.

Staff Engagement: To improve communications and to better engage collections staff in safety, the SWMP saw that it needed to be more creative and more interactive. Since 2013, the safety program has been more transparent and more engaging. A series of targeted monthly safety campaign



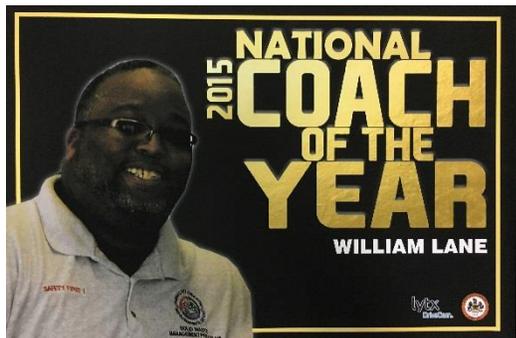
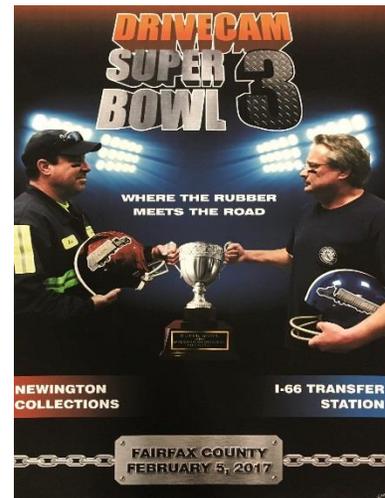
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posters began rolling out in 2014, followed by a new series of monthly supervisor safety posters in 2016. Timely, quick hit safety messages were taken to the field in the form of tailgate talks. *Inside Safety*, a monthly SWMP safety newsletter was created in 2016 to bring awareness to hazards, present controls, and spotlight employees who contributed to improving SWMP worker safety. A revitalized safety committee was formed in 2016 to include staff representatives from



various levels of the organization and regular staff safety meetings became a monthly priority again. The SWMP safety team even developed a *Mt. Safemore* poster to advertise their own team approach to safety in the organization and to tell staff that there are additional resources for reviewing hazards and providing solutions. The SWMP also actively promotes safety messages coming out from SWANA. *Slow Down to Get Around*, *Safety Monday*, and other SWANA *Safety Matters* messages are shared with staff each week and *Five to Stay Alive* posters are displayed throughout the division. Additionally, the SWMP solicits SWANA outreach staff for articles or graphics for its monthly newsletter to staff and the private haulers operating in Fairfax County.

The addition of the Drive Cam camera system offered another opportunity to engage staff. Not only were video clips of risky behaviors coached, but the SWMP turned coaching effectiveness into a competition between divisions. Fueled by the idea of the collections division safety analyst, a Drive Cam Coaching Effectiveness Super Bowl was started to recognize the division with the highest percentage as of Super Bowl Sunday and rewarded it with a grand trophy. Posters were developed and displayed to bring attention to the competition and weekly status



charts reported out all year leading up to the big day. That friendly competition quickly drove coaching effectiveness from below 50% to nearly 90%. Additionally, one SWMP employee was awarded the Lytx National Coach of the Year for 2015 and one employee was awarded Third Place National Coach of the Year and one employee awarded Third Place National Driver of the Year for 2016. The most

significant SWMP engagement/outreach effort of 2016 was its *Slow Down to Get Around* (SDTGA) campaign tagging onto all the work SWANA did to drive the legislation and wanting to create an event to communicate to the public about the dangers of waste collection in suburban and urban neighborhoods. A team was formed and a strategy formulated for an outreach campaign to speak to the local community, commercial haulers, and to SWMP collection workers. The result was a weeklong “celebration” which included staging a Fairfax County waste collection vehicle (outfitted with a SDTGA banner and newly installed safety lighting and staffed with two collections workers) in front of the county’s main office building. A press conference was held (with SWANA, the VA

SUPERVISOR MONTHLY SAFETY CAMPAIGN
Establish Safety Activity Goals
Communicate Expectations
Coach/Mentor Staff
Walk the Walk – Promote DPWES Values
Identify Hazards and Controls
Preach Safety and Practice What you Preach
Hold Yourself and Others Accountable
Look, Listen, Act – Be a Proactive Leader
Engage Staff in Finding Solutions to Problems
Recognize/Acknowledge Excellent Safety Performance
Expand Your Knowledge – Be a Student of Safety
Measure and Communicate Safety Activity Status

Department of Transportation, the American Automobile Association, the VA Department of Labor and Industry, Lytx Drive Cam, the Fairfax County Board of Supervisors) to explain the law and issue an appeal to protect these hard working men and women. The press conference was deemed a success and was reported during several local news broadcasts the same day.

Slow Down to Get Around has become an internal mantra of sorts for the SWMP. When staff members greet each other and use the phrase “slow down to get around”, there is an immediate and appreciable understanding of the phrase which serves to reinforce and emphasize the need for daily awareness regarding all aspects of safety when on the road. After this event, SWMP worked with the County’s Channel 16 to script and shoot its own video public service announcement. A page was then developed for the county website to provide information & resources for collections workers and to educate the public on the dangers the worker face.

Risk Reduction: No less important has been the SWMP’s attention to identifying and reducing the risks its collections operation faces. The 2014

purchase of the Drive Cam camera system marked a turning point as the division began to witness

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its employees' previously unseen risky driving behaviors. The system is set up to rate various behaviors and to consider, based on years of data review experience, the increased risk of a collision based on the types of behaviors a driver exhibits.

The SWMP encourages all employees to report near miss incidents and has safety staff and supervisors review all accident, injury, property damage, and near miss incidents to determine if they were preventable and what corrective actions need to be taken to help avoid or repeat.

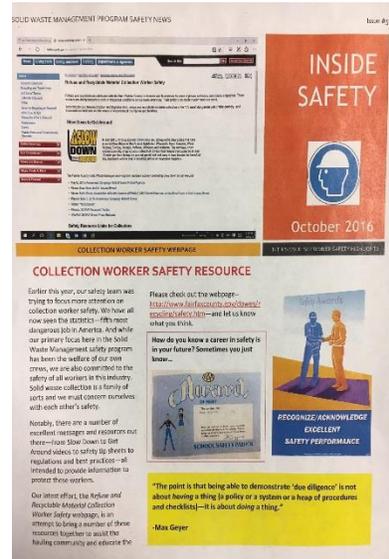
The SWMP consolidated and made more comprehensive its Safety Manual in 2014 and continues to update it annually to address new risks and hazards. Collections safety staff go out on the routes early mornings to assess roads conditions resulting from inclement weather to determine when they are safe for crews to commence work—to help reduce accident and injuries to staff. To further address these risks and hazards, the SWMP has been doing three things: 1) developing or revising several collections operational policies including ones covering safety footwear purchase and use, personal protective clothing requirements, safe cart operation, temporary light duty work, and accident/injury notification, investigation, and reporting; 2) developing a series of job hazard analyses to detail the sequence of steps and potential hazards associated with all hazardous tasks and providing a step by step safe job procedure for each; and 3) conducting weekly facility inspections to identify risks in the building, in the lot, and elsewhere on the property. Finally, the SWMP reduced risk by investing in more highly visible personal protective clothing, cut preventative gloves, better lighting and *Slow Down to Get Around* signage on trucks.

FAIRFAX COUNTY SWMP JOB HAZARD ANALYSIS

Date Analyzed: June 5, 2016	Job Task: CART LIFT OPERATION	Photograph of task/equipment: 
Job Position: All Qualified Employees	Task Location: ALL Fairfax locations equipped with mechanical lifts	
Required PPE: Gloves, safety eye glasses	Required Training: Actual demonstration by competent person; review SOP. Safety orientation review of policy and procedures.	
Optional PPE: Hearing protection, hard hat, back brace	Approved By: Dennis Batts	
Analyzed By: Bobby Swithenbank, Owen Kyer, and Duane Hendricks		
SEQUENCE OF TASK STEPS	POTENTIAL HAZARDS	SAFE JOB PROCEDURE
1. Inspect the lift prior to use. Inspection should include the lift, lift handle and lift mechanisms for raising/lowering cart.	<ul style="list-style-type: none"> Hose or hydraulic leak may occur. Broken bolts on the lift mechanism. Lift handle may malfunction. 	<ol style="list-style-type: none"> Replace or repair hose Replace or repair bolt Repair lift handle
2. Position and attach the cart on the cart lift.	<ul style="list-style-type: none"> Falling items from the cart. Cart does not engage with the cart lift hook. Pinch, impact, and muscle strain. 	<ol style="list-style-type: none"> Wear proper PPE: gloves and eye protection. Ensure the cart is properly placed on the cart lift to avoid excess items from falling. Remove overflow items to prevent them from falling on you. Ensure the cart lift hook catches the lift bar and is stable.
3. Operate/Raise the cart lift to dump the cart.	<ul style="list-style-type: none"> Cart can dislodge from the cart lift and fall, resulting in injury. Items may fall from the cart during operation. Pinch, impact or muscle strain. 	<ol style="list-style-type: none"> Wear proper PPE: gloves and eye protection. Use light, even pressure when pushing the lever. Keep a safe distance from the lift mechanism. DO NOT stand directly behind the cart lift.
4. Operate/Lower the cart lift to the ground for cart removal and return of cart to the curb.	<ul style="list-style-type: none"> Cart can dislodge from the cart lift and fall, resulting in injury. Pinch, impact or muscle strain. 	<ol style="list-style-type: none"> Wear proper PPE: gloves and eye protection. Use light, even pressure when pushing the lever. Keep a safe distance from the mechanism. DO NOT stand directly behind the lift.

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Monitoring and Coaching: With collection crews out on the roads servicing the public each day, it is critical that the SWMP monitor their work habits and behaviors. The Drive Cam camera system has proven invaluable in identifying risky driving behaviors and providing the division with a platform for sitting down with drivers to review those behaviors and coach them back towards safer driving habits—with a points system that calculates the severity of the risk(s) as a means of determining the likelihood of a future collision if not corrected. What Drive Cam does not see is what is happening on the back and sides of our trucks—the ground crews picking up the refuse and recyclables. For that the SWMP in 2015 implemented a program of documented field observations. Safety staff and supervisors go out on the routes each day to observe those crews doing that work and record some of their observations, whether positive or negative, and report back to management to ensure, as with Drive Cam, that senior leaders are aware of risky behaviors and jobs well done. Also, like with Drive Cam, negative observations drive coaching opportunities intended to eliminate work habits that might lead to future injury or accident. The other side of both Drive Cam and field observations is that they provide opportunities for publicly recognizing and promoting positive behaviors.



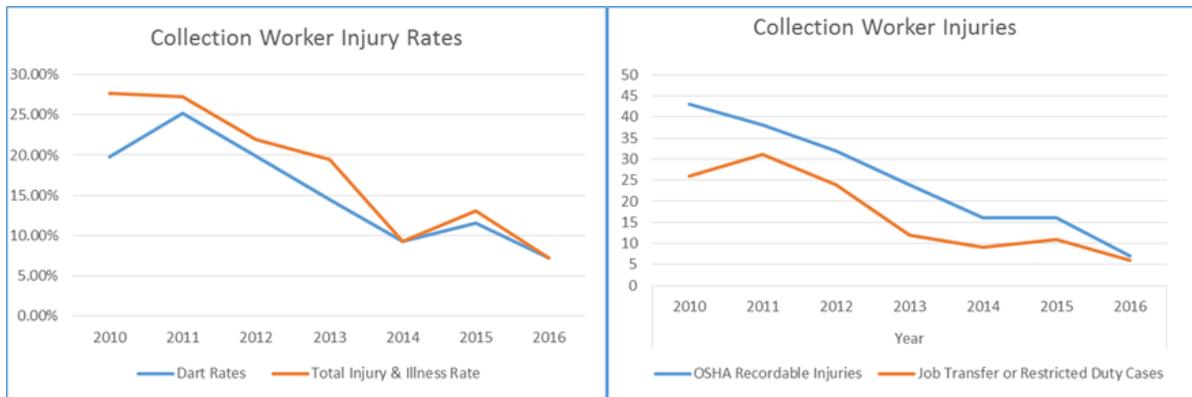
Metrics and Accountability: While training, engagement, reducing risks, and coaching are key to keeping people safe, making improvements is all about reviewing practices and data and holding staff accountable for safe work. If you don't know where you were or where you are going, how will you get there? The SWMP develops goals—especially relative to leading safety indicators like training, facility inspections, safety meetings, incident investigations, employee engagement and the like—and tracks progress towards those goals. SWMP safety staff also review lagging indicators like injury and accident data each month to look for trends or just hazards or risks that require attention. Early intervention is critical. Results are reported to senior leaders who can influence organizational change and create accountability. Equally important is that SWMP strives to identify and recognize those persons in the organization responsible for its success.



CRITERION 2: HOW DO YOU MEASURE RESULTS FOR YOUR SAFETY PROGRAM?

The SWMP tries not to use money (e.g., claims costs) as a measure of the success of its safety program, mostly because it is an historically unreliable indicator. One serious yet unpreventable injury or accident could cost tens or even hundreds of thousands of dollars and still be of little value in reflecting the safety efforts of the organization. Further, reporting claims costs to employees tells them that senior leaders are more interested in dollars than people. While money matters, the focus must be on reducing risky behaviors, controlling hazards, getting staff to recognize and play their part in achieving the types of safety improvements the SWMP was aiming for, and hoping the money follows. To best measure the results of its safety program, the SWMP uses a combination of leading and lagging indicators.

The lagging indicators are the easy and most tangible since they measure hard results. How many injuries did you have? Have many accidents? What are your injury rates? How many lost time days? Those data can be analyzed month to month to see if there are trends that need to be addressed now or over years to measure what the long-term impacts are to those measures. Below is a sampling of the lagging indicators the SWMP tracks and measures to prove safety program results:



The grit of the safety program though, is in the leading indicator, all the things that an organization does to influence the lagging indicators and predict future performance. This is where the SWMP has focused its energy towards developing a stronger and more effective program. This is done through the introduction of or increased use of the tools described in the response to Criterion 1 - including safety training, safety meetings, employee engagement, field staff observations, coaching and mentoring, facility audits/safety inspections, hazard assessments, JHA development, safety committee meetings, near miss/incident investigations and reviews, perception survey results, and emergency exercises conducted. Since 2013, the SWMP has worked hard to identify and implement or improve the quality of its leading indicators—including establishing aggressive goals for these measures to ensure that it is doing all it can to engineer out as many of the risks

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and hazards as it can. All these data points are tracked and compared with the lagging indicator data as the SWMP continues to drive towards a safer work environment and its shared goal with SWANA—to get waste collections off the list of the top 10 mostly deadly jobs in the U.S. Below is an example of the leading indicators the SWMP tracks to measure safety program results.

	2013	2014	2015	2016
Monthly Safety Meetings	10	12	12	12
Avatar Meetings/Coaching	0	0	12	25
Safety Engagement in the Field	125	220	345	750
Tail Gate Talks	220	525	750	1000
Safety Observations Recorded	75	110	315	780
Facility Inspections Performed	12	12	26	52
Safety Audits	2	2	2	3

CRITERION 3: WHAT RESULTS DID YOU USE AS A BASELINE FOR COMPARISON TO DETERMINE IMPROVEMENTS BETWEEN 2015 & 2016?

As noted in Section 2, the SWMP has refrained from using financial worker’s compensation data as a measure of the success of its safety program. In keeping with Occupational Safety and Health Administration (OSHA) 300 Log reporting requirements, the SWMP tracks and measures all safety metrics by calendar year. SWMP baseline (2015) data are as follows:

FAIRFAX COUNTY SOLID WASTE MANAGEMENT PROGRAM BASELINE SAFETY DATA

METRIC	SOURCE	CY2015 DATA
Total Collections Division OSHA Recordable Injuries and Illnesses	OSHA 300 Log	16
Total Collections Division Days Away from Work Cases	OSHA 300 Log	4
Total Collections Division Job Transfer or Restricted Duty Cases	OSHA 300 Log	11
Total Collections Division Days Away from Work	OSHA 300 Log	172
Total Collections Division Job Transfer or Restricted Duty Days	OSHA 300 Log	177
Collections Division DART Rate	Calculated from OSHA 300 Log Data	11.58%
Collections Division Total Injury and Illness Rate	Calculated from OSHA 300 Log Data	13.12%
Total Collections Division Preventable Injuries	Injury Investigation/Review Data	12
Total Collections Division Accidents	Injury Investigation & Review Data	31

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CRITERION 4: HOW DID YOU MEASURE SAFETY IMPROVEMENTS ACHIEVED IN 2016?

The SWMP collected and analyzed the same metrics as established for the 2015 baseline assessment and reported the following improvements:

FAIRFAX COUNTY SOLID WASTE MANAGEMENT PROGRAM SAFETY METRICS

METRIC	CY2015 DATA	CY2016 DATA	RATE OF REDUCTION
Total Collections Division OSHA Recordable Injuries and Illnesses	16	7	56%
Total Collections Division Days Away from Work Cases	4	1	75%
Total Collections Division Job Transfer or Restricted Duty Cases	11	6	45%
Total Collections Division Days Away from Work	172	5	97%
Total Collections Division Job Transfer or Restricted Duty Days	177	52	81%
Collections Division DART Rate	11.58%	7.26%	37%
Collections Division Total Injury and Illness Rate	13.12%	7.26%	45%
Total Collections Division Preventable Injuries	12	4	67%
Total Collections Division Accidents ¹	31	19	38%

¹Note: Collections Division drove 2,350,000 miles in 2016, about 300K more miles than in 2015.

These 2016 reductions, while substantial, represent the culmination of nearly four years of focus on improving safety for SWMP collections workers and the public that the SWMP serves. In addition, the SWMP used events like its week-long 2016 *Slow Down to Get Around* campaign to partner with SWANA, the Virginia Department of Transportation, the American Automobile Association, the Virginia Department of Labor and Industry, Lytx Drive Cam, the Fairfax County Board of Supervisors, and the local solid waste community to bring attention to the dangers these workers face every day. The SWMP used this outreach opportunity to support its workers and get this critical message out to private haulers and the residents of the metropolitan Washington area.

CRITERION 5: TO WHAT DO YOU ATTRIBUTE THE IMPROVEMENT IN SAFETY PERFORMANCE IN 2016?

As noted in the response to the first criterion, there are many moving parts to the revised SWMP safety program. The most important thread running through five components is a focus on staff. Safety improvements achieved by the SWMP in 2016 were the result of the significant combined efforts of staff and management to take ownership of the program and responsibility for each

other's safety. A 2012 consultant audit noted that most employees, when asked, identified the facility safety analyst as the person responsible for their safety. From that point forward, the SWMP set about changing the mindset across the organization.

As one of the first steps in engagement, employees participated in a department-wide safety perception survey to gauge how they viewed supervisor/manager commitment to their safety and what voice they believed they had in addressing concerns. The main takeaway was that communications needed to improve. It was not that the collection workers thought that the people they worked for did not care about their safety—rather they were just not hearing them talk about it enough. They needed to know that their safety was a primary concern. Over the next couple of years, the SWMP opened the lines of communication from top to bottom. Managers had more face time with field staff. Supervisors were trained to involve their crews in tasks like hazard identification and safety planning, and to coach and mentor them as they observed them on their routes. Field staff were encouraged to report hazards and near misses and to participate on a new safety committee that had a direct channel to senior leaders.

At the same time, the SWMP began allocating more resources to the program. An additional safety position was created (and internally filled) in the SWMP's Collections Division. Other investments included: the addition of Drive Cam to all SWMP vehicles, a move to help identify risky behaviors and coach drivers to operate more safely; the interactive Avatar driver training program; improved lighting systems to protect workers on the back of the trucks; more visible personal protective clothing; and giving workers opportunities to help develop job hazard analyses specific to the tasks they perform. These moves brought SWMP worker safety to the forefront and played a substantial role in 2016 improvements in safety performance.

CRITERION 6: WHY DO YOU THINK YOUR SAFETY PROGRAM DESERVES THIS AWARD?

As recently as 2012, the SWMP was in a safety tailspin. Not a year went by without 30 to 40 recordable injuries to staff in the Collections Division—with some employees sustaining two or three a year. And while the SWMP was proud of the high level of service provided to its customers, it was increasingly apparent that these employees did not feel that management cared about their safety. As previously noted, 2013 marked for the SWMP the start of a new safety paradigm. The SWMP already knew that the job could be done well. The SWMP just needed to prove to itself that production and safety were not mutually exclusive - that, in fact, putting safety first would benefit everyone. With that in mind, the SWMP focused on three critical groups: senior leaders, front line supervisors, and drivers and helpers. Senior leaders were critical because they set the tone. It was important that they got out front with a message to staff that their safety is paramount - valued even over productivity. Front line supervisors were obviously involved because they have the most

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immediate oversight and influence over the collection crews. Drivers and helpers were paramount because they have the highest exposure to risks and are the employees that the SWMP wanted to protect by dedicating its efforts toward creating a safe work environment.

The cornerstone of the SWMP's efforts with all three groups was engagement, with and between each of the groups. Senior leaders communicated their commitment to workplace safety and established expectations of staff and followed up by talking with crews out on routes. Supervisors underwent 16 hours of specially developed "Safety Leadership" training designed to help them better understand their roles as leaders and their responsibility for training, monitoring, coaching, recognizing, and/or disciplining their employees as appropriate to ensure they have the tools they need to do their jobs safely. Most importantly were the efforts directed at our drivers and helpers, a concentrated approach that included: improved training; focused safety outreach; better coaching & mentoring; more visible uniforms & trucks; more field observations; updated job hazard analyses & policies; Avatar driver training; Drive Cam; special events; and SWANA outreach tools like *Safety Monday*, *Five to Stay Alive*, and *Slow Down to Get Around*.

The heart of every organization is its people. The heart of a waste collection operation is its drivers and helpers. While picking up the trash is the task, so too is keeping those workers safe. With this industry listed as the fifth deadliest job in the county, there is a collective responsibility to do better. Doing better starts at home and that is exactly what the Fairfax County Solid Waste Management Program did. The simple answer to why we think our safety program deserves this award is the 41% reduction in recordable injuries from 2015 to 2016 and the 78% reduction since the program overhaul began in 2013. The reality is that the incremental improvements to shift the culture resulted in staff seeing that safety matters to their leaders and in recognizing their own integral role in achieving a safe work environment for all.

