



Pierce County

Office of the County Council

930 Tacoma Avenue South, Room 1046
Tacoma, Washington 98402-2176
(253) 798-7777
FAX (253) 798-7509
TDD (253) 798-4018
1-800-992-2456
www.piercecountywa.org/council

March 31, 2014

To: Performance Audit Committee
From: Bill Vetter, Sr. Legislative Analyst
Re: Evaluation of Pierce County Public Works and Utilities Safety and Claims Management

We are pleased to present this study of safety and claims management in the Pierce County Department of Public Works and Utilities. The study was approved as part of the 2013 work program by the Performance Audit Committee, and undertaken to evaluate the effectiveness of Public Works and Utilities, along with Risk Management, in managing safety and injury claims for Public Works Employees. For the years 2008 to 2012, there were 306 workers' compensation claims in Public Works and Utilities, with costs totaling \$3,434,079 to date.

After a competitive bidding process, the Performance Audit Committee approved a contract with the The Athena Group to conduct the study. The Athena Group has extensive experience working with local governments in Washington, especially in the area of program evaluation.

The following report was based on an analysis of injury and claims data for the last five years; research into leading practices in the area of safety and claims management; a review of materials and documents provided by Public Works and Risk Management as well as interviews and reviews of the Road Operations, Traffic Operations Sewer, and Surface Water Management Divisions of Public Works; and a department-wide employee survey. This report is designed to provide the Performance Audit Committee with an assessment of safety and claims management efforts and make recommendations where appropriate.

The report found that Public Works managers and supervisors are currently using many leading practices, and provides recommendations for improvement in some areas, including: increased information sharing among divisions, further collection and analysis of injury and claims data at the management level, and the establishment of a core set of performance measures with policy-makers and county leaders to track the Public Works and Utilities safety and claims management progress and results

County departments are in general agreement with the recommendations, and the Public Works department's response is included at the end of the report.

We appreciate the extensive cooperation and effort put into this study by the staff in Public Works and Utilities, and Risk Management.

EVALUATION OF PIERCE COUNTY PUBLIC WORKS AND UTILITIES' SAFETY AND CLAIMS MANAGEMENT PRACTICES

Pierce County Performance Audit Committee

March 31, 2014



FLT Consulting, Inc. / The Athena Group, LLC
101 North Capitol Way, Suite 300
Olympia, WA 98501
(360)754-1954
www.athenaplace.com

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EXECUTIVE SUMMARY

In 2013, the Pierce County Council's Performance Audit Committee approved a study of safety and claims management in the Department of Public Works and Utilities. The purpose of the study is to analyze the effectiveness of Public Works and Utilities' safety and claims management efforts and to make recommendations for improvements where applicable.

In 2012, employees reported 119 injuries, resulting in 59 claims and \$508,000 in claims costs, which include medical payments, time loss payments, and other expenses.

We found that the Department is following many leading practices in protecting the safety of workers. Our survey of employees gives management high marks for making safety a priority, and total workers' compensation claims have declined over the past two years. Our report also suggests several ways that the Department could improve even further.

We designed and conducted an independent and anonymous employee survey that confirmed good safety practices within Public Works and Utilities. Ninety percent of respondents agreed that the safety and health conditions in their job are good, and 92 percent agreed that safety is a high priority with management. However, the survey also pointed to potential areas of improvement. Only 68 percent of employees agreed that inspections and hazard assessments are regularly performed and only 70 percent agreed that their supervisor often talks about safety.

We observed Department managers and supervisors using several good safety practices that could be applied in other divisions. For example:

- The Road Operations Division is systematically tracking and analyzing its injuries and claims in order to identify potential patterns or issues.
- Traffic Operations has found innovative ways to make sure that employees have access to information on the hazards of their jobs and ways to mitigate those hazards.
- Surface Water managers reported that they are discussing safety in their employee evaluations as a way to emphasize its importance.
- Sewer is providing opportunities for injured employees to return to work on light duty.

The Department's safety and claims management efforts could be even further strengthened with more detailed and regular claims and injury data analysis, along with regular information sharing and problem-solving sessions among the management team and across divisions within the Department.

WORKER SAFETY COMPENSATION CLAIMS IN 2012:

- **119 injuries**
- **59 claims**
- **\$508,000 in claims costs, including medical, time loss, and other expenses**

INTRODUCTION

Background

In 2013, the Pierce County Council's Performance Audit Committee approved a study of safety and claims management in the Department of Public Works and Utilities. The purpose of the study is to analyze the effectiveness of Public Works and Utilities' safety and claims management efforts and to make recommendations for improvements where applicable. The Performance Audit Committee contracted with The Athena Group to conduct this study. This audit topic was suggested by Department leadership.

The Department of Public Works and Utilities is responsible for designing and maintaining county roads, operating two airports and the ferry system, addressing flood control, water quality and the preservation of natural draining systems, maintaining the sewer system and operating the wastewater treatment plant, and regulating the solid waste system. The Department includes over 650 employees. The 2014 Public Works and Utilities budget is \$401 million.

Methodology

There were four major parts to this evaluation:

Injury and claims data analysis – We analyzed injury and workers' compensation claims data for January 2009 through September 2013. This data came from two sources: injury logs compiled to meet federal Occupational Safety and Health Administration (OSHA) requirements and claims reports.

Leading Practices Research – We conducted research into leading practices for safety and claims management and developed a framework for evaluating whether Public Works and Utilities is using those practices.

Review safety management efforts – Since many of the Department's on-the-job injuries are in the area of maintenance, we focused our review on four maintenance divisions or sections within the Department. We interviewed managers in each organization and reviewed their safety documents. The four maintenance organizations are:

- Road Operations Division – This Division is responsible for road maintenance, operations, and improvements (162 employees).
- Traffic Operations – This section within the Office of the County Engineer is responsible for traffic signs and signals (24 employees).
- Sewer Division – The Maintenance and Operations section of this Division is responsible for the maintaining and operating the wastewater treatment plant and the collection system (101 employees).
- Surface Water Management – Maintenance, Operations, and Quarry section is responsible for addressing flood control, water quality, and the preservation

of the natural drainage systems. The section also operates a rock quarry (27 employees).

We also reviewed County safety materials and documents, including the Pierce County Accident Prevention Plan (also known as the Safety Manual) and the procedures and forms for reporting employee injuries.

Survey – We conducted a Department-wide online survey to learn more about employee perspectives of safety management efforts. Managers provided opportunities for field staff to use computers so that they could complete the survey. Over 450 employees, or two-thirds of all employees, responded to the survey.

Acknowledgements

We would like to thank the staff from The Department of Public Works and Utilities and The Risk Management and Insurance Department for their cooperation and extensive time and effort expended in providing data and information for this report. Department staff were responsive, professional and supportive of our inquiries.

INJURY AND CLAIMS DATA ANALYSIS

The goal of safety and claims management efforts is always to reduce injuries and workers’ compensation claims costs. For this reason, a key part of this evaluation was an analysis of Public Works and Utilities’ injury and claims data to see how many employees are injured and what the costs of those injuries are. This analysis also allowed us to review injuries and claims for trends and patterns.

In 2012, the last year for which complete data was available at the time of this analysis, employees reported 119 injuries. This resulted in 59 workers’ compensation claims and approximately \$508,000 in claims costs, including medical payments, time loss payments, and other expenses.

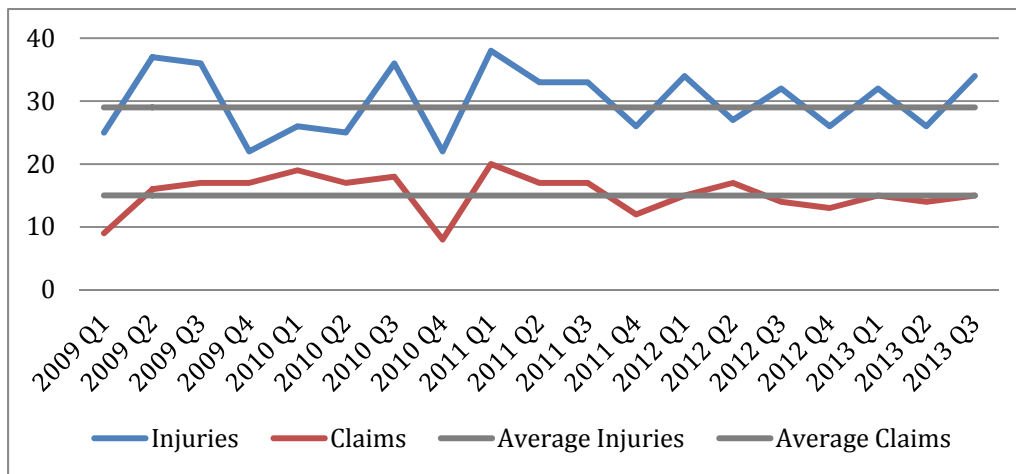
We also reviewed the data for trends and patterns, and we found that injuries, claims, and costs are subject to considerable variation, although claims costs have been declining over the last two years. Further analysis of claims costs shows that the division with the highest claim costs is the Road Operations Division. The majority of claim costs are for neck, back and upper body musculoskeletal injuries.

We conducted this analysis using the considerable amount of injury and claims data available through Risk Management, including OSHA-required injury logs and claims data. As part of this evaluation, we compiled data from both sources for January 2009 through September 2013.

Injuries, claims, and costs fluctuate

As shown in Figure 1, the quarterly number of injuries and claims fluctuates considerably. On average, there are 29 injuries per quarter, with an average of 15 of those resulting in a claim. In the third quarter of 2013, there were 34 injuries and 15 claims. This fluctuation reflects a pattern of normal variation.

Figure 1: Number of Injuries and Claims, by Quarter when Injury Occurred

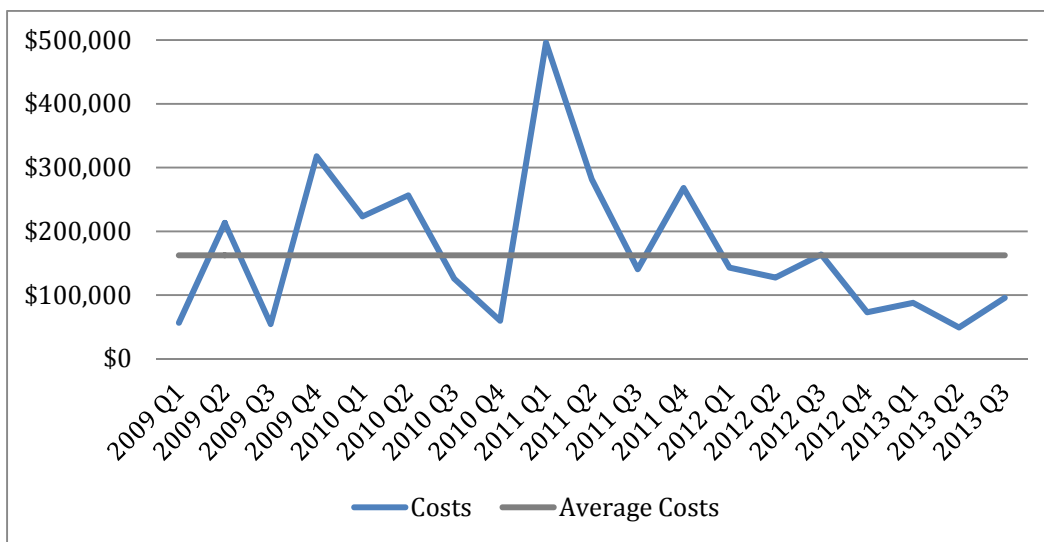


Source: The Athena Group analysis of OSHA 300 Logs and claims data reports.

The following figures depict claim costs and how they vary over time. The claims costs included in these charts are both the costs already paid as well as the funds reserved for future costs. They are shown by the quarter when the injury occurred, not the quarter when the payment was made.

The first cost chart, Figure 2, shows the total claim costs by quarter. As shown in this table, claim costs vary considerably, with an average of approximately \$162,000. Some quarters, including the first quarter of 2011, have higher claims costs as a result of a small number of high-cost injuries. After some costly quarters in 2011, the total costs per quarter have been lower since early 2012. This decline could be a result of the increased safety efforts and attention in the Road Operations Division; however, we could not definitively prove this was the cause. In the third quarter of 2013, total claim costs were \$95,564.

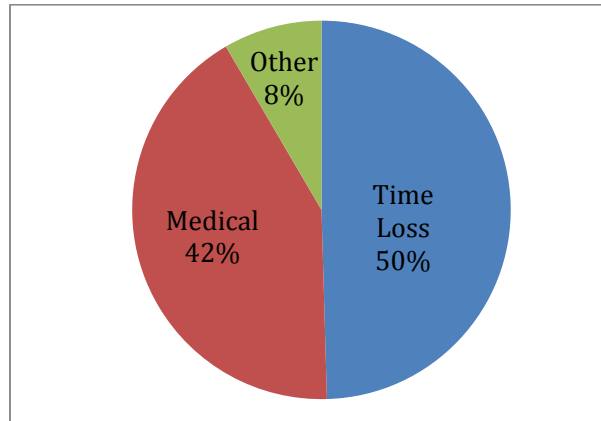
Figure 2: Total Claims Costs (Paid and Reserves), by Quarter when Injury Occurred



Source: The Athena Group analysis of claims data reports.

Figure 3, shows what costs are included in the total claims costs. Since 2009, time loss payments have made up half of all claims payments. Time loss payments are wages that are paid to the employee through workers compensation during the time the injured employee is unable to work. They are workers’ compensation benefits that are designed to partially make up for lost wages. Medical payments are another 42 percent.

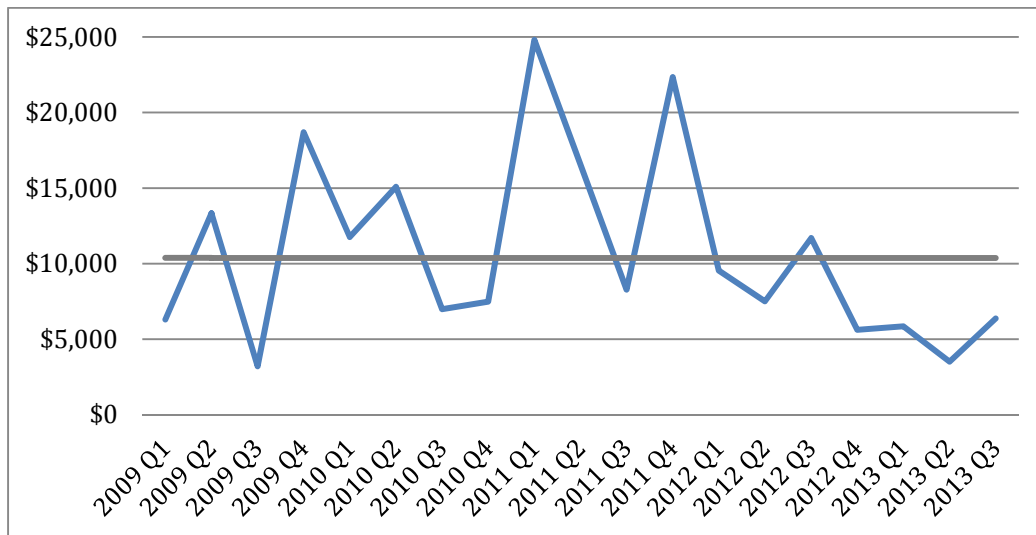
Figure 3: Types of Claims Costs



Source: The Athena Group analysis of claims data reports.

The following chart, Figure 4, shows the average cost per claim and how that has changed over time. As with the total cost of claims, there is significant variation in the average cost per claim because of the impact a high-cost claim for a major injury can have. For example, the two peaks in 2011 are caused by a small number of high cost claims that raised the overall average for that quarter. The first quarter of 2011 had three injuries with over \$50,000 in claims costs and the fourth quarter of that year had two injuries with over \$50,000 in claims costs. Peaks over the average are likely to occasionally occur because of the impact that a small number of serious injuries can have.

Figure 4: Average Cost per Claim, by Quarter when Injury Occurred



Source: The Athena Group analysis of claims data reports.

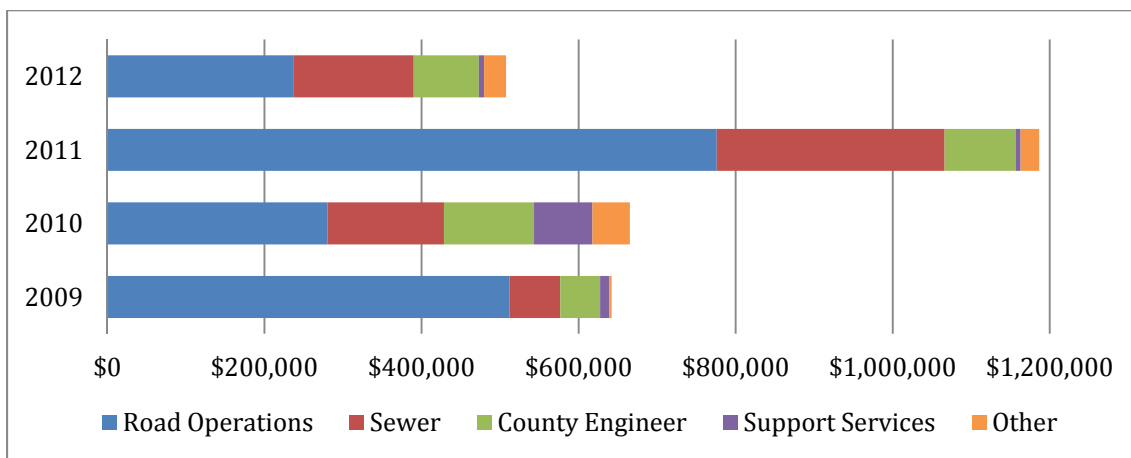
Road Operations Division has highest claim costs

The next cost chart shows annual claim costs by Division for the divisions with the highest claims costs:

- Road Operations Division.
- Sewer Division.
- Office of the County Engineer has engineering responsibilities related to traffic, transportation, construction, bridges, and surveying and mapping.
- Support Services performs diverse services, such as Equipment Services and Budget, Fiscal, and Administrative Services. Since they support the other divisions, many of their staff are physically located in those other divisions.
- “Other” includes the divisions with the lowest claims costs: Airport and Ferry Administration; Surface Water Management; and Sustainable Resources.

As shown in this chart, The Road Operations Division makes up the largest share of claims costs each year. In 2009, 80 percent of the Department’s claim costs were for that Division. This percent declined to 39 percent in 2012. Again, this could be a result of the increased safety efforts in that Division, although it is difficult to establish a specific cause.

Figure 5: Total Claims Costs (Paid and Reserves), by Division



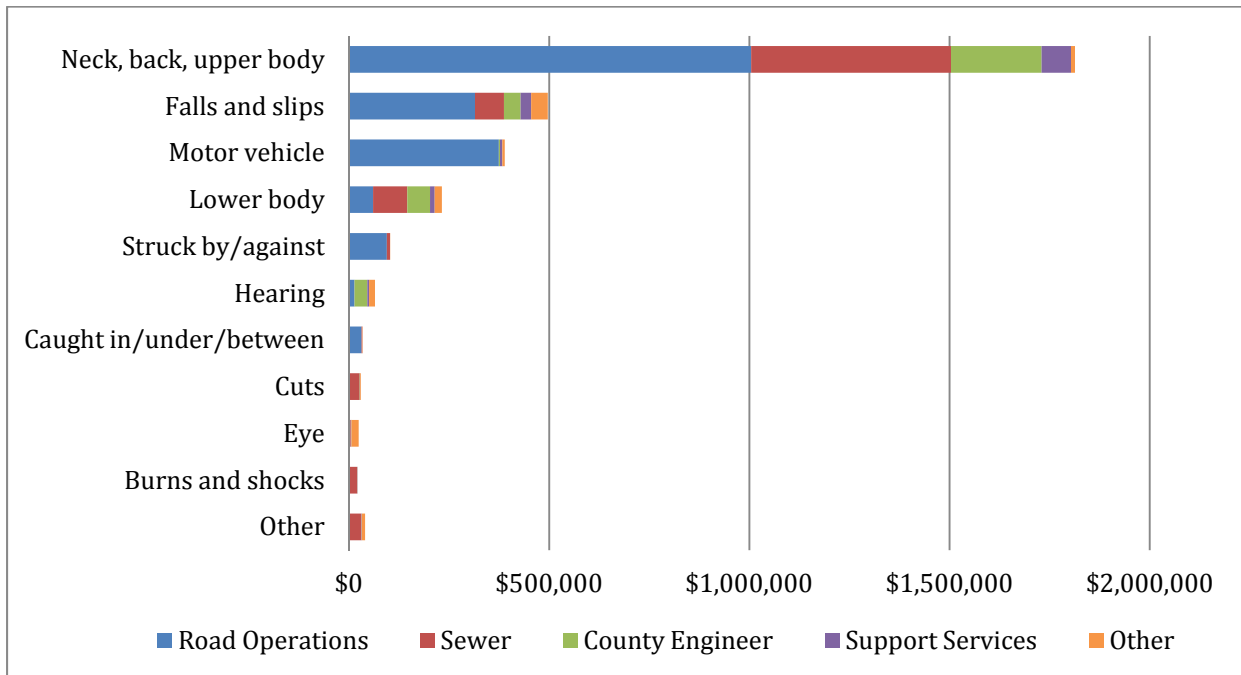
Note: “Other” includes the divisions with the lowest claims costs: Airport and Ferry Administration; Surface Water Management; and Sustainable Resources.

Source: The Athena Group analysis of OSHA 300 Logs and claims data reports.

Majority of costs are for upper body musculoskeletal injuries

The following chart, Figure 6, shows claims cost, by injury type. By far, the biggest category is musculoskeletal injuries of the neck, back, and upper body. These injuries make up over half of all claims costs. Other major categories include falls and slips; injuries involving motor vehicles; and musculoskeletal disorders of the lower body.

**Figure 6: Total Claims Costs (Paid and Reserves), by Injury Type
January 2009 through September 2013**



Note: Divisions included in “Other” are those with the lowest claims costs: Airport and Ferry Administration; Surface Water Management; and Sustainable Resources.
Source: The Athena Group analysis of OSHA 300 Logs and claims data reports.

Average claim costs are lower than in similar organizations

Midwest Employers Casualty Company’s (MECC) conducted a benchmarking report of Pierce County’s Department of Public Works and Utilities based on its claims experience from 2008 through 2013. They compared Public Works and Utilities to other self-insured county and tribal governments.

According to this study, Pierce County’s Department of Public Works and Utilities has slightly more claims than comparable organizations. Although Public Works and Utilities has more claims than the benchmark, it is worth noting that a higher number of injuries may be a reflection of managerial support for reporting injuries. Additionally, the severity of claims is lower, and so are the costs. Public Works and Utilities had:

- 14 percent more claims than benchmark.
- 27 percent lower average cost per claim.
- 17 percent lower loss costs per 100 worker hours.

EVALUATION FRAMEWORK AND RESULTS

To develop a framework for evaluating Public Works and Utilities’ safety and claims management, we researched the leading practices in worker safety and claims management. We reviewed documents from federal and state government sources to identify leading practices in safety management. We then used this framework to evaluate the Department of Public Works and Utilities’ safety management as well as to identify leading practices within the Department. Throughout the course of the evaluation, we identified several examples of good safety management within the Department. We also identified areas where the Department’s safety management efforts could be even further strengthened by applying these practices more widely.

Leading practices framework has seven elements

To evaluate Public Works and Utilities performance compared to industry leading practices, we developed a framework based on leading practices and standards issued by the federal and state government. The federal Occupational Safety and Health Administration and the Washington Department of Labor and Industries, which oversee both public and private sector work place safety, have published resources to guide workplace safety programs. Other states have also published employee safety guides and self-assessments that provided additional detail helpful for identifying leading practices. These sources are listed in Appendix B.

Figure 7, below, is a summary of our leading practices framework, which identifies seven core elements to an effective safety management program, along with common aspects of each element.

Figure 7: Safety and Claims Management Leading Practices Framework

Elements	Components
1. Management leadership	<ul style="list-style-type: none"> • Clearly prioritize health and safety. • Set clear goals and objectives. • Assign safety and health roles and responsibilities to specific individuals. • Provide sufficient resources for implementation.
2. Worker participation	<ul style="list-style-type: none"> • Involve employees in hazard prevention and control activities. • Enable employees to take responsibility for correcting unsafe conditions and work practices. • Encourage employees to report concerns.
3. Hazard identification and assessment	<ul style="list-style-type: none"> • Conduct hazard analyses all tasks and processes. • Perform safety and health inspections regularly and correct deficiencies. • Develop hazard reporting and tracking systems. • Investigate injuries and illnesses – and near misses – to

	<p>identify hazards.</p> <ul style="list-style-type: none"> • Inform employees of hazards in workplace.
4. Hazard prevention and control	<ul style="list-style-type: none"> • Establish necessary safety and health policies, rules, and safe work practice procedures. • Ensure standard engineering controls, administrative controls, and preventive maintenance procedures are in place and appropriate for the types of industry hazards. • Provide, use, and maintain Personal Protective Equipment. • Enforce safety and health rules and policies – unsafe behavior results in corrective action.
5. Education and training	<ul style="list-style-type: none"> • Train employees on an on-going basis; provide safety orientation for new hires. • Train supervisors and managers. • Ensure that individuals with safety and health responsibilities have necessary knowledge, skills, and information to perform their duties.
6. Claims management	<ul style="list-style-type: none"> • Investigate injuries and illnesses to identify hazards and root causes. • Establish return-to-work policies and practices.
7. Program evaluation and improvement	<ul style="list-style-type: none"> • Periodically review the safety program to determine if it has been implemented as designed and is making progress towards achieving goals; modify, as necessary. • Continually look for ways to improve the program.

Source: The Athena Group leading practices research. See Appendix B for specific sources.

Leading practices are used and could be further strengthened

We used the leading practices framework as criteria for evaluating the safety management practices within the Public Works and Utilities. The following section describes our conclusions related to each of the seven elements in the leading practices framework.

Like all Pierce County departments, Public Works and Utilities is regularly monitored for safety compliance by the Washington Department of Labor and Industries. Therefore, we did not conduct any in-depth safety inspections or compliance monitoring, but instead focused more broadly on management practices.

Leading practice #1: Management leadership

How is Public Works and Utilities doing in this area?

- ✓ Leaders at Public Works and Utilities have made it clear that safety is a priority.
- ✓ Over 90 percent of survey respondents agreed that employee safety is a high priority with management.

Are there ways they could improve?

- Safety issues could be further highlighted as an agenda item in regular management team meetings.

Leaders at Public Works and Utilities have made it clear that safety is a priority.

Business documents authored by the Director and management team members emphasize the importance of safety. It is listed as one of Public Works and Utilities' seven values, along with teamwork, integrity, quality, innovation, public service, and stewardship. The Department also has a formal safety related goal: "Make employee safety and wellness a priority." Safety does, however, compete with other priorities for the Director's time and attention.

The employee survey results indicate that employees agree that safety is a priority. Over 90 percent of respondents agreed that employee safety is a high priority with management. Further, 85 percent agreed that "There are no significant compromises or shortcuts taken when employee safety is at stake."

Opportunity for Improvement: One area where we suggest the focus on safety could be strengthened is at the department management level. We observed that most safety related activities are undertaken either at the division level or lower, or at the county-wide level. In other words, except for one-one-one meetings with between the Director and the manager in charge of the largest and highest risk division, safety is not routinely discussed or addressed at the department management team level. Furthermore, the Department's safety officers do not routinely meet as a group, other than at the county-wide safety meetings. Doing so would provide a valuable opportunity to share best practices and lessons learned within the Department.

The Department Director has historically focused his safety attention on the Road Operations Division. This is understandable and appropriate given that this Division has historically had the greatest number of claims, injuries, and costs. As part of the Director's meetings with the Road Operations Division Manager, they have discussed safety data and concerns. Up until now, this focus has not extended to the other divisions in the Department. We recommend this as one area where department-wide safety management could be even further improved. This is an important step for demonstrating that safety is a priority and setting clear expectations.

Public Works and Utilities does not have a department-wide safety officer or program. The management philosophy has been that everyone is responsible for safety. Instead of a department-wide safety program, each division or section develops and manages its own safety program. In most cases, this is through the election of safety officers who hold that title in addition to their normal job duties. The exception is the Road Operations Division which has a Training Coordinator who has safety and training responsibilities.

Leading practice #2: Worker participation

How is Public Works and Utilities doing in this area?

- ✓ Employees participate on safety committees.
- ✓ Employees have multiple venues for reporting hazards.
- ✓ 91 percent of all employees agreed that it is easy to report a safety concern.

Are there ways they could improve?

- None noted

Employees have opportunities to be involved in safety efforts.

One way for employees to be involved in safety efforts is to participate in safety committees. Public Works and Utilities has several safety committees that are organized by work group or location. Employees can volunteer and be elected to serve as safety officers who attend these safety committees. According to the County Safety Manual, safety committees meet monthly for activities such as:

- Conducting safety inspections.
- Reviewing accident reports and injury claims to determine means of eliminating hazards.
- Accepting and evaluating employee suggestions.
- Promoting and publicizing safety.

The safety officers also attend the county-wide safety committee meetings. The county safety committee has representatives from each county department. About 14 to 17 employees from across Public Works and Utilities attend the county safety meeting each month. The purpose of these meetings is to serve as a forum for exchanging ideas and distributing information that can be shared with employees at safety meetings.

Employees agreed that they are involved in safety efforts, with 83 percent agreeing they are involved in efforts to make the workplace safer. The majority of employees also agreed that employees and management work together to ensure the safety possible working conditions (87 percent agreed).

Employees have several venues for reporting hazards.

Consistent with leading practices, we found that Public Works and Utilities employees are able to report hazards and unsafe conditions in their job. They have several options for reporting hazards: They can report safety issues to safety officers, safety committee members, supervisors, or County Risk Management. The County has a form that employees and supervisors use to report incidents or unsafe conditions. However, Public Works and Utilities managers stated that their employees are more likely to report hazards directly to their supervisors or safety officer.

To encourage hazard reporting without fear of reprisal, one of the Department's divisions, Sewer, has a box for anonymous reporting of concerns. They also have pictures of safety committee members posted on the wall so that employees can know who to go to with concerns, if they would rather not go to their supervisor or management with safety concerns.

In response to the survey, 91 percent of all employees agreed that it is easy to report a safety concern or hazard. We found no indications that hazard reporting is suppressed or discouraged. A somewhat lower percent – 82 percent – agreed that they were confident their safety concerns will be addressed.

Leading practice #3: Hazard identification and assessment

How is Public Works and Utilities doing in this area?

- ✓ Hazards are identified and analyzed.
- ✓ Inspections are conducted.
- ✓ County policies encourage investigations of injuries.

Are there ways they could improve?

- Job hazard analyses could be more readily available.
- Division level managers could more regularly analyze and review injury and claims data to problem solve and share effective strategies.

Job hazard analyses are done, but could be more readily available to employees.

To comply with federal and state regulations, employers are required to develop job hazard analyses. Job hazard analysis are short documents that supervisors are required to complete for each job that employees do, such as operating a forklift or welding. Then for each job, supervisors are required to list:

- Each of the basic steps necessary for doing the job.
- The existing or potential hazards for each of the tasks.
- Recommended safety procedures for each of the hazards.

County Risk Management has developed instructions, forms, and examples to guide each department's efforts.

A leading practice is not just to develop the job hazard analyses, but to also share the information with employees. Hazard analyses are most effective when shared with employees because then they have the information they need about the hazards in their jobs and how to mitigate those hazards.

Traffic Operations is a leader in making hazard analyses readily available to employees. They have made their analyses available electronically and provided employees with laptops so they can access the information. The electronic format allows them to link the hazard analysis to any applicable Material Safety Data Sheets that provide additional information about material safety. This is an important step since some of the hazards in the job involve dealing with potentially hazardous materials. Linking these documents makes it easier for employees to get information on the hazards of any materials. Traffic Operations also puts paper copies of the forms at the physical location where the employee does the job. For example, the hazard analysis for using the aerosol can puncher is located by the puncher. It is easy to see how this placement of the information right at the hazard site is more effective than a large binder of job hazard analyses that is placed on a shelf somewhere as a resource.

To further ensure that employees understand the hazard analyses, Traffic Operations also provides monthly training on a selected hazard analysis and Material Safety Data Sheet.

Opportunity for Improvement: We did not find that other Divisions were as proactive about sharing the job hazard analysis with employees. Other divisions could follow these examples for more actively and effectively sharing job hazard analysis with employees:

- Make hazard analyses more readily available.
- Write job analyses in plain language and make them easy to read.
- Proactively select specific job hazards for focused training and interactive discussion at regular staff meetings.

Divisions and sections have inspection routines.

Another important component of hazard identification and assessment is to regularly conduct inspections to identify job hazards and ensure safety protocols are being followed. The County's Safety Manual provides guidelines and a checklist for conducting self-inspections that identify job hazards. In our interviews with Public Works and Utilities managers, we heard examples of divisions and sections conducting inspections, consistent with leading practices. In particular we heard about three types of inspections being done:

- **Daily inspections:** Surface Water managers mentioned two types of daily inspections conducted by their safety officer: a mine safety inspection at the quarry and a walk-around shop inspection.

- **Monthly inspections:** Traffic Operations has a checklist and process for doing a monthly safety inspection. The three-page checklist shows what items the person doing the inspection must look for in each building or work area. These include items such as the availability of specific types of personal protective equipment, fire extinguishers, emergency lighting, and spill response supplies. They also look to make sure that work areas are clean and that items on upper shelves are secure and unlikely to fall.
- **Work zone field reviews:** In the Road Operations Division, the Training Coordinator goes to at least one work zone per district per month with a safety officer. In these field reviews, they check whether each person is using the appropriate personal protective equipment. They also look to make sure that the number and placement of signs, cones, and flaggers is appropriate. If there is any need for change, they discuss it with the crew.

Only two-thirds of survey respondents agreed that inspections and hazards assessments are regularly done.

In the employee survey, 94 percent of respondents agreed that they know the potential hazards of their job. However, only 68 percent agreed that the inspections and hazard assessments are regularly done. This suggests that management either needs to complete them more regularly or that managers and supervisors need more effectively inform employees that these inspections are in fact occurring regularly. We noted a high degree of variation among divisions on this question: agreement ranges from 88 percent in Road Operations to less than half in Support Services and Sustainable Resources.

Public Works and Utilities divisions should be more proactive about making information about inspections and job hazard analysis available to employees.

County policies encourage injury investigations.

According to the County's Safety Manual, employees are required to report all injuries and accidents, no matter how minor, to their immediate supervisor. The Supervisor then completes a Report of Employee Personal Injury. This form asks for information about the employee, the injury, and the incident. The form has a few key questions that encourage the supervisor to investigate the injury and then follow-up:

- *What could employee have done to prevent this accident?*
- *What specific action have you taken with your crew to prevent a recurrence of similar accidents?*

Asking these questions is critical, and reflects leading practices in work place safety. Supervisors are then able to use this information to inform their safety management and training practices. Public Works and Utilities managers told us that they discuss them in the safety committee meetings. They may also use them to identify topics for trainings or to highlight at staff meetings.

The ability to do injury investigations is dependent on employees actually reporting their injuries and incidents. Public Works and Utilities managers told us that they strongly encourage employees to report injuries. In the past, some employees were reportedly hesitant to report injuries or incidents, especially if they weren't serious. Managers have worked to encourage employees that it is important to report all injuries. This was confirmed by the survey results in which 85 percent of respondents agreed that injuries and near misses are reported. The only division with a lower percent of employee agreement is Sewer, where 76 percent agreed that injuries and near misses are reported.

Opportunity for Improvement: While division and section managers and supervisors investigate individual injuries, they don't always compile injury data that would allow for a systematic review of the volume and types of injuries that are occurring. This prevents them from being able to identify potential trends or patterns and to proactively address concerns before they become a major safety problem.

The exception is in the Road Operations Division, where staff compiles information on their injuries into a spreadsheet so that they are then able to monitor trends and patterns. According to the Division Manager, they have made a number of policy and equipment changes based on this analysis:

- **Vehicle backing accidents** – After having 18 backing accidents in 2007-2008, they implemented a policy that drivers must get out of their vehicle to physically check behind their vehicle before backing up. If another employee is available, they are expected to be a spotter and help direct the vehicle safely. According to the Division Manager, the number of backing accidents declined to two the following year.
- **Pinch points** – The Division has had several injuries where an employee's finger, hand, or other body part was caught in a pinch point. They are now working to remove those pinch points to reduce the number of pinching injuries. One example of a pinch point is where the dump truck tailgate meets the dump bed. Employees have to clear the tail gates of debris before the tail gates will shut properly, but risk pinching their hands between the tail gate and the bed. To address this hazard, Road Operations Division staff worked with Equipment Services staff to develop modifications that reduce the exposure of body parts to the pinch points. The Division Manager reports that they have not seen this type of injury since making these changes.
- **Catch basin lid lifting** – Roads Operations is responsible for inspecting stormwater catch basins. However, the catch basins have heavy lids and some employees were injured lifting those lids. The Division purchased tools (much like a crowbar) to make it easier to lift the lids safely and emphasized proper lifting technique.

Leading practice #4: Hazard prevention and control

How is Public Works and Utilities doing in this area?

- ✓ Safety rules and procedures are established and enforced.
- ✓ 86 percent of employees agree that safety rules and practices are fairly and consistently enforced.
- ✓ Personal protective equipment is provided to employees.
- ✓ Managers consider safety when purchasing equipment and tools.

Are there ways they could improve?

- Managers and supervisors should raise the profile of safety by talking about it more frequently.

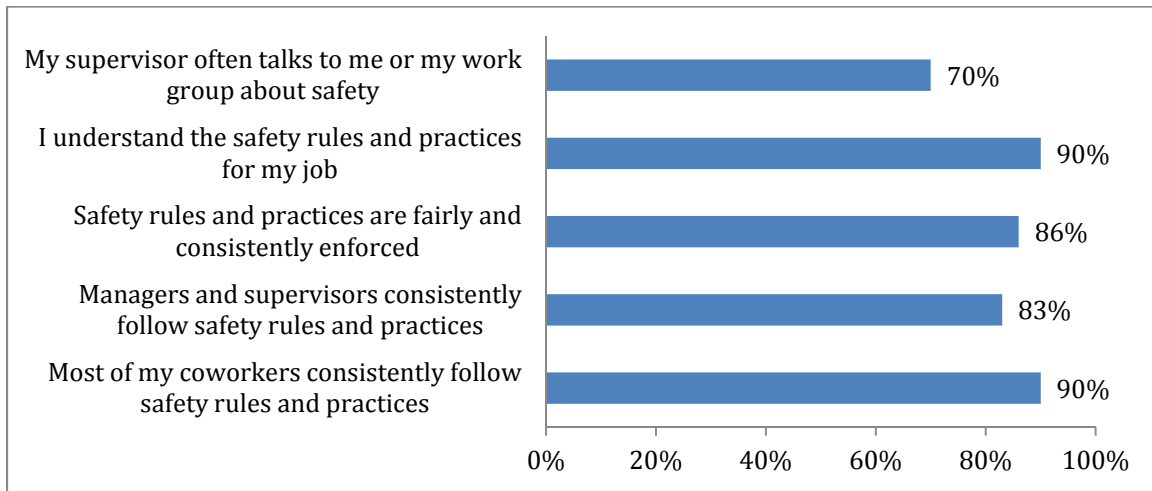
Safety rules and procedures are established and enforced.

County Risk Management has developed the Pierce County Accident Prevention Plan (also known as the Safety Manual) and other policies related to safety in the County. The Safety Manual provides information about safety program requirements in addition to providing general safety rules. Individual departments and divisions are then responsible for developing the rules and procedures that govern their specific job responsibilities.

Some of the safety rules in effect at within Public Works and Utilities divisions and sections include the vehicle backing policy; requirements to wear safety vests and hardhats; and keeping shops clean. We also heard about how management enforces these safety rules and practices, both by reminding employees of the rules and through formal disciplinary action. Several of the managers we met with shared examples of disciplinary action based on unsafe actions at work. Surface Water managers told us that they also emphasize safety by discussing it as part of employee annual evaluations.

As shown in Figure 8, in response the survey, 86 percent said that safety rules and practices are fairly and consistently enforced. Seventy percent of employees said that their supervisor often talks about safety; however, there is a lot of variation among divisions, ranging from 85 percent in Road Operations to 50 percent or less for Sustainable Resources and Support Services.

Figure 8: Percent of Survey Respondents Agreeing with Statements about Safety Rules and Practices



Source: 2013 Survey of Public Works and Utilities employees.

Personal protective equipment is provided to employees.

In our interviews and facility tours, we observed that personal protective equipment is generally provided to employees. Several managers told us that they work to provide quality equipment and to give options that will fit different employee needs (such as ear plugs that fit in differently sized ears). One manager said that this makes it more likely that employees will actually use the equipment. He said, “We buy nice safety glasses that they want to wear so they’ll wear them all the time. They get to pick them out.” In the survey, 88 percent of respondents agreed that personal protective equipment is available and well maintained.

Another safety practice is to consider safety when purchasing new materials, tools, and equipment. As an example, when the Road Operations Division purchases wood chippers, they consider safety because some designs are safer than others. Employees also agreed that management considers safety in purchasing decisions. According to the survey, 85 percent of respondents agreed management considers safety when purchasing new materials, tools, and equipment.

Leading practice #5: Education and training

How is Public Works and Utilities doing in this area?

- ✓ The Public Works and Utilities has a full-time dedicated Training Coordinator, as does the Road Operations Division.
- ✓ The Department is tracking whether required safety trainings are completed.
- ✓ Divisions are providing on-going safety training.

Are there ways they could improve?

- The Department should continue to make employee orientation more consistent and relevant.
- The Department should continue to integrate training requirements into regular employee performance reviews.
- Some divisions could improve their required safety training completion rates.

Department is making efforts to make new employee orientation more consistent.

The County Safety Manual requires a new employee safety orientation and includes a checklist of items that should be covered as part of this orientation. Managers also told us about their new employee orientation processes, which vary by division and can include activities such as facility tours, training, and watching safety DVDs. The Department's Training Coordinator is working to make these orientations more consistent and relevant to each employee's job and location.

The Road Operations Division, which has its own full-time Training Coordinator, leads the way in terms of effective employee safety orientations. That division has a detailed new employee safety orientation checklist that covers topics such as, safety policies, rules, and their value; reporting accidents and unsafe conditions; emergencies; and personal work habits, such as lifting techniques and housekeeping. It also includes a facility tour, highlighting both hazards and safety equipment.

In response to the survey, 83 percent of respondents agreed that when they started the job, they received safety training relevant to their job and location. The Road Operations Division had the highest percent of respondents (92 percent) agreeing with this statement.

We recommend that the Department continue efforts to make safety orientation more consistent and relevant throughout the Department.

Divisions provide on-going safety training.

Consistent with leading practices, the Department also offers on-going safety training to employees. Most training is provided by the Department's individual divisions and sections. There are, however, four safety trainings that are required for all Department employees. The Department Training Coordinator tracks data on

which employees have completed this training, as shown in Figure 9. Some divisions have higher percentages of employees completing trainings than do other divisions, indicating there may be for improvement in training compliance.

**Figure 9: Percent of Employees Completing Required Trainings,
As of November 2013**

Division	First Aid	Fire Extinguisher	Heat Stress Awareness	Material Safety Data Sheets
Communication & Accountability	56%	89%	89%	89%
Office of the County Engineer	86%	80%	80%	79%
Support Services	78%	76%	76%	73%
Sewer	89%	49%	73%	31%
Road Operations	89%	72%	92%	63%
Surface Water Management	83%	89%	92%	90%
Airports & Ferries	57%	14%	14%	14%
Sustainable Resources	88%	94%	94%	94%
Overall	85%	71%	82%	64%

Source: Public Works and Utilities

The Department Training Coordinator also tracks information on other training requirements, and has recently developed tables for each division showing which positions require which training and at what frequency. This information makes it easier to see, for example, which employees need confined space entry training and how often they should receive that training. The Training Coordinator plans to use this information to generate reports showing how many employees have completed each required training, and then to incorporate safety training information into employee evaluations. This will provide useful information for ensuring employees receive the safety trainings they need.

According to the survey, 86 percent of respondents agreed that they continue to receive the safety training needed to do their job safely.

Leading practice #6: Claims management

How is Public Works and Utilities doing in this area?

- ✓ The Road Operations Division Manager analyzes injury and claims trends on a monthly basis.
- ✓ County Human Resources and Risk Management communicate with employees, their supervisors, and their doctors to identify potential light-duty assignments and evaluate return-to-work options.

Are there ways they could improve?

- Other divisions could do more to analyze and monitor injury and claims data.
- Use of light duty varies among divisions. Managers could more regularly share ideas for light-duty assignments and other return-to-work strategies.

Claims data analysis is limited.

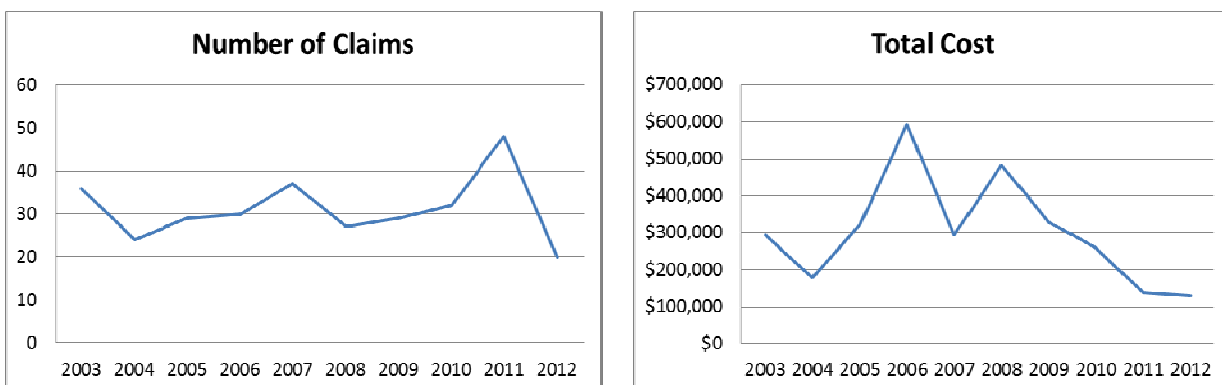
As described in the section on injury investigations, supervisors and safety officers investigate individual injuries. However, the Department and most divisions, with the exception of Road Operations, are not consistently compiling injury and claims data and looking for trends within and across divisions. As mentioned earlier, this limits management's ability to identify potential trends or patterns and to proactively address concerns before they become a major safety problem.

Road Operations collects basic injury and claims data from Risk Management. They use this information to track the number of claims over time, the total cost of claims, and the average cost per claim. Road Operations also compiles additional information about the incident and injury, including injury type. They also track data on time loss and restricted duty.

Figure 10, on the following page, provides two examples of Road Operations' charts that show the number of claims and total costs during the last ten years. One reason for the decline in costs that starts in 2006, according to Public Works and Utilities managers, is the opening of the new Central Maintenance Facility, which created opportunities for improved safety in the design of the facility and the purchase of new equipment. Another possible reason is the Department Director and Road Operations Manager meet regularly to review claims data and discuss improvement strategies.

Opportunity for Improvement: Other divisions are not currently monitoring and using safety and claims data in this manner. We recommend the Department replicate these practices of analyzing and regularly reviewing claims data in other divisions besides Roads Operations. We suggest that conducting the type of analysis we developed for this report on a more regular basis and bringing the results into regular departmental management meetings would add value and improve safety and claims management.

Figure 10: Examples of Road Operations Division’s Claims Analysis Charts



Source: Department of Public Works and Utilities.

Use of light duty varies among divisions.

Consistent with leading practices, Risk Management has developed a policy governing return to work and the use of light duty. However, the use of light duty varies considerably by division with some divisions offering few light-duty assignments.

Light duty allows employees who are unable to perform the full range of the normal job duties to return to work in a less strenuous position. Finding opportunities for employees to return to work as soon as possible, even if it is not in their regular line of work, is a critical component of successful return-to-work policies.

According to leading practices research, the longer an employee is out of work, out of contact with peers and supervisors, and out of routines that support professional confidence and competency, the less likely they are to cultivate the resiliency required to recover and successfully return to work. At a certain point – often at the six month point – the likelihood that the employee will return to work instead of remaining on long term or permanent disability drops off significantly. Therefore, the sooner and more effectively the employee can be re-integrated into the work environment, the better – both for the employee’s health and well-being and to manage the total cost of claims.

According to Risk Management’s policy, injured employees must have a physician complete a medical evaluation before the employee can return to work. As part of the medical evaluation, the physician estimates the employee’s physical capacities and the amount of weight the employee can lift, carry, or push. Risk Management and Human Resources work with the employee’s supervisor to determine if light-duty work is available within those limitations. Maintaining contact between the employee, their doctor and the supervisor or Risk Management to pursue appropriate return-to-work options is also important.

A review of claims data shows that light duty use varies among Public Works and Utilities' divisions, with Sewer employees working more light-duty days than employees in other divisions.

One way to illustrate the difference among divisions is to compare the number of days off with the number of light duty days, as shown in Figure 11. The Road Operations Division has 90 employee days off for every light duty day. In contrast, Sewers only has 3 days off for every light duty day.

There could be several reasons why there is so much variation among the divisions. One limiting factor could be the physically-demanding nature of the work that many Public Works and Utilities employees do. For example, in the Road Operations Division, the only type of light-duty work available is as a flagger; however, this is a physically demanding assignment that still requires an employee to stand all day. Public Works and Utilities managers cited several other reasons for the variation in use of light duty, including the availability of light-duty work, the willingness of the division to create such opportunities, the willingness of the union to support use of light duty, and the cost of supervising light-duty work.

The Sewer Division's managers have found ways to offer light-duty opportunities where appropriate. One recently injured employee is providing traffic and flagging control during his recovery. Managers have also developed a list of work items that can be used for light-duty assignments. This list includes items such as light cleaning, painting, checking equipment and valve numbering, conducting vehicle safety checks, and doing warehouse maintenance.

**Figure 11: Days Off and Light Duty Days,
January 2009 through September 2013**

Division	Number of Days Off	Number of Light Duty Days	Ratio of Light Duty Days to Days Off
Road Operations	8,783	98	1:90
Office of County Engineer	1,814	38	1:48
Sewer	2,103	758	1:3
Support Services	535	211	1:3
Surface Water	99	82	1:1
Total	13,334	1,187	1:11

Source: The Athena Group analysis of OSHA 300 Logs and claims data reports.

Opportunity for Improvement: There are many possible reasons for the variation in use of light duty among divisions, including the nature of the work a division does and the types and severity of the injuries its employees sustain. However, we recommend that managers share their ideas for light-duty assignments and other

return-to-work strategies. This is especially important given that time loss payments comprise half of all claims costs.

Leading practice #7: Program evaluation and improvement

How is Public Works and Utilities doing in this area?

- ✓ The Department Director and Road Operations Division Manager have consistently reviewed safety and claims data for the past three years.
- ✓ The Department should continue to be responsive to safety concerns and support employee ideas for improving safety.

Are there ways they could improve?

- The rest of the management team could review safety performance data and improvement initiatives on a more regular basis.
- The Department should explore ways to reduce the most prevalent type of injuries (musculoskeletal).
- The Department should regularly survey employees on safety.

County policies require managers to review and evaluate departmental safety programs annually. Public Works and Utilities' Department managers have taken some steps to review their safety and claims management. This has been most evident in the Road Operations Divisions since their Department Director and Division Manager have focused their efforts in this area. Additionally, Department managers have stated that they see this performance audit as an opportunity to evaluate their safety efforts and make improvements.

As highlighted in the hazard identification and assessment section above, the simple yet powerful discipline of identifying the cause of accidents and potential corrective actions through the course of completing the accident reports is a small scale but critically important dimension of continuous performance improvement. We recommend that the Department take the additional step of systematically reviewing its injury and claims data to identify trends and patterns in order to further improve safety efforts. We also recommend that the Department periodically survey employees as a way of gauging employee perceptions on the effectiveness of the safety management program

EMPLOYEE SURVEY

In November 2013, we designed and conducted an online safety survey for all Public Works and Utilities employees to learn about employee perceptions of safety. The survey was designed to test for and reflect the practices identified in our research as supporting high performance in safety and claims management. Over 450 employees, or two-thirds of all employees, responded to the survey. The survey questions and results are included in Appendix C.

Survey points to safety culture in Department

Overall, the survey results indicate that employees in Public Works and Utilities believe their work places are safety managed and agree that leading safety practices are followed. As shown in Figure 12, ninety percent agreed that “The safety and health conditions in my job are good.” Employees are also confident that they know how to do their job safety: 96 percent agreed that “I know how to keep myself and my coworkers safe.”

Figure 12: Percent of Employees who Agreed with Safety Statements



Source: 2013 Survey of Public Works and Utilities employees.

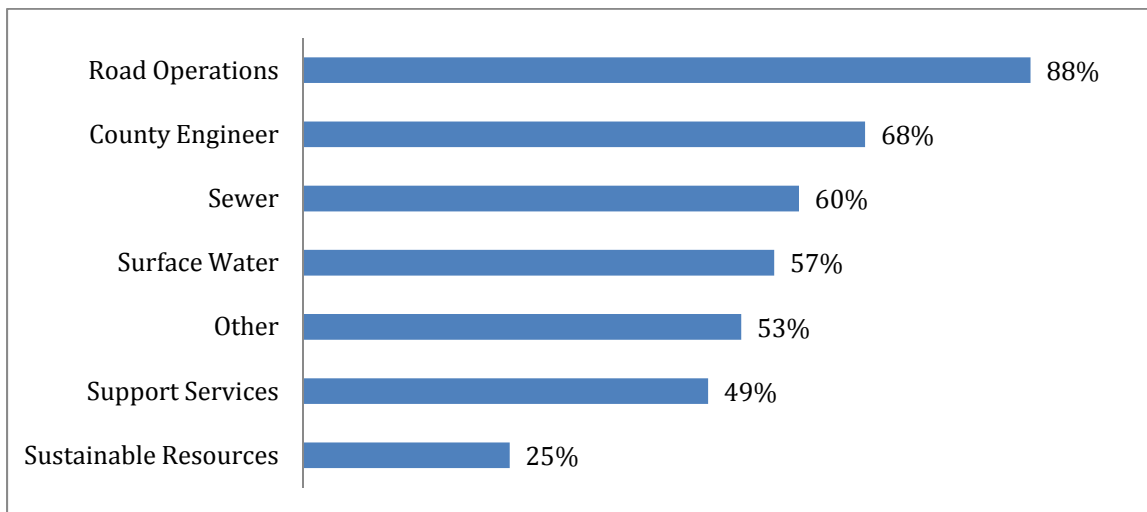
Survey also reveals areas for improvement

According to the survey, there are also some notable differences among the divisions. This is evident in the two questions with the lowest percent of employee

agreement: inspections and hazard assessments are regularly done, and my supervisor often talks about safety.

The area with the lowest percent of employee agreement is “Inspections and hazard assessments are regularly performed,” a statement that only 68 percent agreed with. This suggests that they either need to be done more regularly or that managers and supervisors need to do a better job of informing employees. As shown in Figure 13, there is a lot of variation among divisions on this question, though, with agreement ranging from 88 percent in Road Operations to less than half in Support Services and Sustainable Resources.

**Figure 13: Percent of Employees who Agreed:
“Inspections and hazard assessments are regularly performed.”**

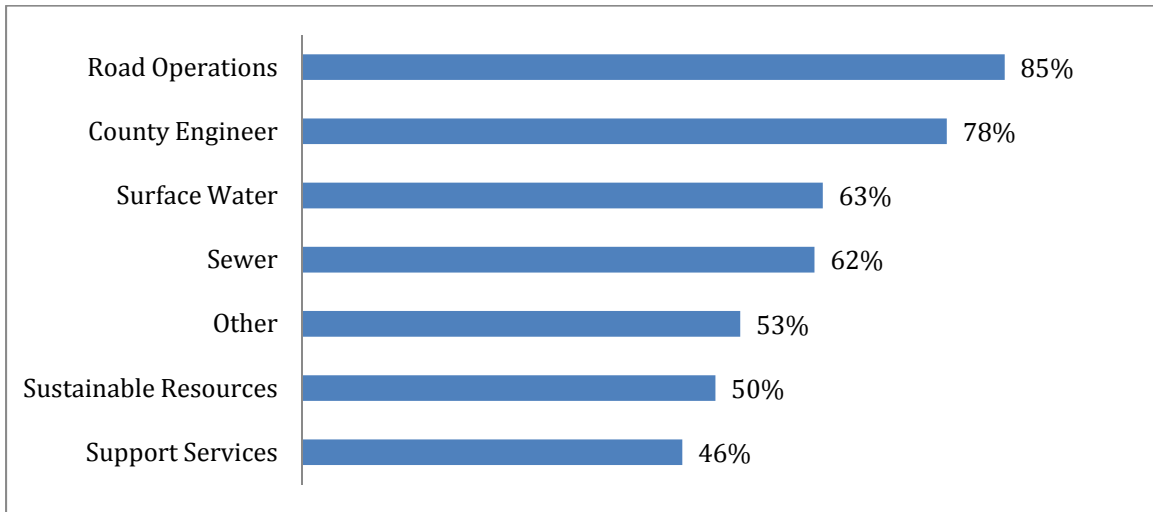


Note: “Other” includes smaller divisions: Airport and Ferry Administration; Communication and Accountability; and the Office of the Director.

Source: 2013 Survey of Public Works and Utilities employees.

The question with the second lowest percent of agreement is “My supervisor often talks to me or my work group about safety.” Only 70 percent agreed that their supervisor often talks about safety. Again, there is a lot of variation among divisions, ranging from 85 percent in Road Operations to 46 percent in Support Services, as shown in Figure 14, on the following page.

**Figure 14: Percent of Employees who Agreed:
“My supervisor often talks to me or my work group about safety.”**



Note: “Other” includes smaller divisions: Airport and Ferry Administration; Communication and Accountability; and the Office of the Director.

Source: 2013 Survey of Public Works and Utilities employees.

Office workers have safety concerns

Although the focus of this evaluation was the safety of maintenance workers in the field, the open-ended survey comments were clear that office workers are also concerned about their safety, concerns that some think are overlooked. Their concerns include both ergonomics and their personal safety. Several employees stated that their office or parking lot did not feel safe. In particular, employees in the Environmental Services Building and Tacoma Mall Campus mentioned recent vehicle break-ins. Other employees are worried about the threat of workplace violence.

Although office employees are concerned about safety, only 59 percent responded that their supervisor often talks to them or their work group about safety. Another opportunity for improvement is to better train officer workers about workplace safety.

CONCLUSIONS AND RECOMMENDATIONS

Public Works and Utilities managers and supervisors are using several leading safety practices in places. Efforts could be even further strengthened if managers monitored and used claims and injury data analysis more proactively, and if divisions shared safety practices across the Department.

Our recommendations for improvement include:

1. **Strengthen safety management efforts at the Department management level.** Safety and claims management performance should be analyzed, monitored and regularly discussed in Department management meetings. Safety officers can help inform the management team agenda by suggesting emerging issues and areas needing management attention.
2. **Provide opportunities for information sharing across all divisions and at all levels,** so that managers, supervisors, and safety officers can learn about the good safety practices in place in other areas of the Department. Some of the best practices we identified that should be shared include: making job hazard analyses accessible to employees; analyzing and tracking injuries and claims; and finding light-duty opportunities for injured employees.
3. **Integrate safety management with other routines,** such as regular one-on-one meetings between managers and the director and including safety training requirements in annual personnel evaluations.
4. **Regularly conduct an employee safety survey.** Employees have an important perspective on the safety of their jobs. Surveying employees about safety every year or two will provide an important measure of the safety climate within the Department.
5. **Analyze, review and improve claims and injury performance.** Collecting and analyzing injury and claims data for all Divisions would help the Director and management team inform goal setting, performance monitoring, problem solving and performance improvement initiatives, which should be a regular topic of management team meetings.
6. **Measure departmental safety performance.** The department should establish and share a core set of performance measures with policy-makers and county leaders to track the Public Works and Utilities safety and claims management progress and results. Examples of key measures include:
 - Number of injuries and claims by division, total and rate per 100 employees.
 - Claim costs by division, total and average cost per employee.
 - Number and cost of neck, back, and upper body musculoskeletal injuries.
 - Number of days off and number of light duty days per division.
 - Percent of employees in each division whose safety trainings and certifications are up to date.

APPENDIX A: INJURY CATEGORIES

This injury analysis provides a rough overview of the types of injuries experienced by Public Works and Utilities. However, it is only a rough overview since injury classifications were based on a limited description of the injury.

Following are the categories of injuries that we used to analyze claims data:

- **Burn/shock** – Includes burns, shocks, and electrocution.
- **Caught in/under/between** – Injuries resulting from pinching, smashing, and crushing.
- **Cuts.**
- **Eye** – Debris in eye.
- **Fall/slip** – Injuries caused by falling or slipping.
- **Hearing** – Hearing loss.
- **Lower extremity** – Lower extremity musculoskeletal disorders, including sprains, strains, and twists.
- **Motor vehicle** – Injuries to vehicle occupants and people struck by a vehicle in motion.
- **Neck, back, upper extremity** - Musculoskeletal disorders of the neck, back and upper extremity, such as back, shoulder, arm pain and repetitive motion injuries.
- **Sting/bite** – Includes dog bites and bee and wasp stings.
- **Struck by/against** – Injuries resulting from being struck by or against an object.
- **Other** – Includes injuries that don't fit into other categories, including allergies.

APPENDIX B: LEADING PRACTICES SOURCES

The two primary sources for the leading practices identified in this summary are the federal and state government. These two documents provided the general framework and many of the elements identified here.

- OSHA's Injury and Illness Prevention Programs, Fact Sheet. Available online at: <https://www.osha.gov/Publications/OSHA3665.pdf>
- Washington's Department of Labor and Industries resources for Accident Prevention Programs, available online at: <http://www.lni.wa.gov/Safety/Basics/Programs/Accident/default.htm>

Other states have also published employee safety guides and self-assessments that provided additional detail. In particular, these states provided additional information related to claims management. Of particular usefulness are:

- Wisconsin's Department of Administration, Guide to Your Written Health and Safety Program, available online at: <http://www.doa.state.wi.us/docview.asp?docid=668>
- Ohio's Bureau of Workers' Compensation, safety resource guide and safety management self-assessment, available online at: <https://www.bwc.ohio.gov/employer/forms/dfsp/SafetyResources.aspx>
<https://www.bwc.ohio.gov/downloads/blankpdf/SH-26.pdf>

APPENDIX C: SURVEY RESULTS

1. For which Division in the Department of Public Works and Utilities do you work?

Answer	Count	Percent
Office of the County Engineer	84	18.4%
Road Operations	143	31.4%
Sewer and Water Utilities	92	20.2%
Surface Water Management	68	14.9%
Sustainable Resources	14	3.1%
Department Support Services	37	8.1%
Other	18	4.0%
Total Responses	456	

2. What is your position type?

Answer	Count	Percent
Manager	23	5.1%
Supervisor	71	15.6%
Employee	361	79.3%
Total Responses	455	

3. Where do you do most (at least 80%) of your work?

Answer	Count	Percent
Field	149	33.1%
Office	214	47.6%
Combination	87	19.3%
Total Responses	450	

4. How much do you agree with each of the following statements?

	Strongly Disagree	Disagree	Agree	Strongly Agree	Not applicable to my job	Total
I know how to keep myself and my coworkers safe.	3	6	231	184	7	431
I know what the potential hazards are in my job.	3	9	232	176	15	435
Employee safety is a high priority with management.	6	27	166	237	3	439

	Strongly Disagree	Disagree	Agree	Strongly Agree	Not applicable to my job	Total
It is easy to report a safety concern or hazard.	6	29	219	180	3	437
I understand the safety rules and practices (such as wearing personal protective equipment) for my job.	4	6	190	206	32	438
Most of my coworkers consistently follow safety rules and practices.	3	31	267	126	9	436
The safety and health conditions in my job are good.	7	35	222	166	3	433
Personal protective equipment is available and well maintained.	4	21	197	188	29	439
Employees and management work together to ensure the safest possible working conditions.	5	47	210	169	5	436
Safety rules and practices are fairly and consistently enforced.	13	36	251	119	12	431
I continue to receive the safety training needed to do my job safely.	6	45	219	152	11	433
Injuries and near misses are reported.	8	38	246	122	18	432
There are no significant compromises or shortcuts taken when employee safety is at stake.	11	52	170	205	3	441
Management considers safety when purchasing new materials, tools, and equipment.	6	21	205	167	39	438
When I started the job, I received safety training relevant to my job and location.	11	57	226	135	6	435
I am involved in efforts to make the workplace safer.	5	40	208	155	30	438
Managers and supervisors consistently follow safety rules and practices.	8	52	222	136	14	432
I am confident that my safety concerns will be addressed.	15	65	182	175	0	437
My supervisor often talks to me or my work group about safety.	21	91	202	105	19	438
Inspections and hazard assessments are regularly performed.	7	77	201	91	56	432

5. Have you ever had a Workers' Compensation claim?

Answer	Count	Percent
Yes	160	36.8%
No	275	63.2%
Total Responses	435	

6. If you have had a Workers' Compensation claim, how satisfied were you with how it was handled?

Answer	Count	Percent
Very dissatisfied	20	12.7%
Dissatisfied	25	15.9%
Satisfied	84	53.5%
Very satisfied	28	17.8%
Total Responses	157	

7. Please share your suggestions for improving safety at the Department of Public Works and Utilities.

(open-ended)

8. Do you have any other comments about safety at the Department of Public Works and Utilities?

(open-ended)



MEMORANDUM

March 17, 2014

From: Brian Ziegler, Director, Public Works and Utilities

A handwritten signature in blue ink, appearing to read "B. Ziegler".

To: Pierce County Performance Audit Committee

Attn: Bill Vetter

Re: Department Response to Performance Audit Report - *"Evaluation of Pierce County Public Works and Utilities' Safety and Claims Management Practices"*

Dear Committee Members,

Thank you for this opportunity to comment on the subject performance audit. We appreciate that the Committee highlighted this important topic and devoted audit resources to help our staff improve safety performance.

Public Works and Utilities (PWU) is one of only a handful of nationally accredited public works agencies in the nation. As part of our continuous improvement culture, we regularly survey our employees on a wide variety of issues. Safety has been a key part of these surveys, and the results have generally been positive. The subject audit has allowed us to dig much deeper into this topic and to identify additional areas for continuous improvement.

Historically, our department has maintained a close working relationship with the county's safety program managers in the Risk Management Department. This relationship, particularly in the conduct of a very diligent claims management process, has paid dividends in reduced claims costs. We appreciate the services we receive from the Risk Management Department and look forward to continuous improvement in that relationship too.

I'd like to address some notable areas of the study, focusing on three "Good News" stories and three "Areas for Improvement."

Good News Stories

- **Good Safety Culture:** The employee safety survey highlighted several areas of outstanding performance in the safety arena. Quoting from p. 13, "*Over 90% of employees agreed that employee safety is a high priority with management.*" This is a significant achievement in a complex department of 650 employees.

- **Low Claims Costs:** The benchmarking data on p. 10 identifies PWU's claims costs as "*lower than in similar organizations.*" This is significant given that the comparison departments include all facets of county government, not just public works, thereby lowering the comparison benchmark.

- **Role of Modern Facilities:** Not specifically mentioned in the audit, but evident from the data, is the role of modern facilities in improving employee safety. As we developed our Central Maintenance Facility (CMF) project, we had a hunch we could see measurable improvements in employee safety. The data in *Figure 10 - Road Operations Claim Costs*, shows that in the five years preceding the CMF opening, claim costs averaged \$340,000 per year. In the five years after CMF opening, claim costs dropped to an average of \$260,000 per year. This is a nearly 25% reduction.

Areas for Improvement

- **Share Best Practices:** In particular, we'd like to begin a dialog between PWU Divisions on the various approaches used for light-duty assignments and employee access to Job Hazard Assessments (JHA's).

- **Data Collection and Analysis:** We'd like to do more of this on a Department-wide basis, not only to identify and address trends, but particularly to facilitate inter-divisional sharing of best practices.

- **Management Review:** The study suggested giving more management attention to safety topics and trends. In addition to discussing potential hazards and worker injuries, we'd like to give some attention to the largest category of injuries, i.e., musculoskeletal, and identify strategies for reducing these injuries.

PWU would like to continue our dialog with the Performance Audit Committee and share progress reports on a frequency that is acceptable.

Thank you again for providing our department the resources necessary to continuously improve our safety performance.

cc: County Executive
PWU Management Team
Larisa Benson, The Athena Group