

Chapter 7

Highways and Infrastructure – Enforcing Vehicle Weight and Dimension Requirements

1.0 MAIN POINTS

Saskatchewan's economy relies on moving oil, agricultural, and mined mineral resources to market. A shift from rail transportation to highway transportation has increased large commercial vehicle traffic on provincial highways. Vehicles that exceed weight regulations cause increased damage to pavement and bridges. This increased usage and damage increases maintenance costs.

The Ministry of Highways and Infrastructure estimates it spends at least \$10 million every year to repair damage caused by overweight vehicles. In addition, vehicles that exceed dimension requirements may increase risks to public safety in that they can obstruct traffic or hit overhead infrastructure.

The Ministry is responsible for enforcing vehicle weight and dimension laws on provincial highways. The processes that the Ministry used to enforce weight and dimensions laws for the 12-month period ended August 31, 2016, were not effective. The Ministry needs to:

- › Rationalize, in writing, vehicle enforcement activity expectations based on a risk assessment to confirm planned enforcement activities are sufficient
- › Complete vehicle enforcement activities as planned
- › Evaluate the results of joint-enforcement activities
- › Complete and document investigations consistent with its established processes
- › Periodically evaluate and report to senior management on the effectiveness of vehicle enforcement activities

2.0 INTRODUCTION

Under *The Highways and Transportation Act, 1997* (Act), the Ministry is responsible for ensuring transport law is followed within Saskatchewan.¹ As part of that overall responsibility, the Ministry has made its Commercial Vehicle Enforcement (CVE) Branch responsible for the enforcement of commercial vehicle weight and dimension regulations on provincial highways.² In 2015-16, the CVE Branch spent about \$5 million enforcing commercial vehicle regulations, including weight and dimensions.

¹ *The Highways and Transportation Act, 1997*, section 3(2)(d).

² *The Highways and Transportation Act, 1997*, section 2(p), defines a provincial highway as a public highway or a proposed public highway that is the subject of a departmental plan or is prescribed as a provincial highway, and includes a weighing and inspection facility.



2.1 Vehicle Weight and Dimension Requirements Set in Legislation

Restricting vehicle weight and dimensions is one way the Ministry promotes public safety on provincial highways and protects their quality. The Act gives the Ministry the authority to restrict gross weight or the dimension of vehicles travelling on provincial highways or prohibit their operation.³ *The Vehicle Weight and Dimension Regulations, 2010* (Regulations) set out allowable weights and dimensions vehicles must follow when travelling on provincial highways.

- ▶ Allowable weights are based primarily on maximum gross vehicle weight.⁴

The Ministry varies the maximum allowable weights based on its classification of the provincial highway. Provincial highway classification reflects the type of the provincial highway (e.g., pavement, thin membrane) and degree of service it is designed to provide (e.g., primary, secondary). To maximize the economic movement of goods and minimize the damage to road structures, the Ministry assigns special weights to some provincial highways.⁵

Maximum allowable gross vehicle weight is dependent on a vehicle's maximum registered gross vehicle weight (e.g., 24,300 kilograms for a truck with 3 axles, 48,300 kilograms for truck and trailer with 6 axles), tire size and axle spacing combined with the provincial highway classification.

- ▶ Allowable dimensions for vehicles set specific maximum widths (e.g., 2.6 metres), heights, and lengths for vehicles travelling on provincial highways.

In addition, cities and municipalities have authority to set their own allowable weights and dimensions for vehicles travelling on their streets and roads (e.g., municipal bylaws, road bans). They use law enforcement agencies (such as the RCMP and municipal policing services [e.g., the Regina Police Service]) to enforce these municipal bylaws. These agencies may have officers assigned, trained, or equipped to conduct enforcement of weight or dimension requirements.

2.2 Risks Associated with Over-Dimension and Overweight Vehicles

Saskatchewan's provincial highway network is the largest in Canada on a per capita basis, consisting of over 26,175 kilometres of provincial highways.⁶ Saskatchewan's economy includes significant bulk-commodity exports of agriculture, livestock, oil, and mined mineral resources.

From 2010 to 2014, a shift from rail transportation to highway transportation increased large vehicle traffic on provincial highways.⁷ **Figure 1** shows the increase in number of large vehicles (e.g., truck tractors, trailers) registered in Saskatchewan from 2010 to 2014.

³ *The Highways and Transportation Act, 1997*, section 35.1.

⁴ Gross vehicle weight means the combined weight of a vehicle and the load carried on that vehicle, or the combined weight of two or more vehicles coupled together and the combined weight of the loads carried.

⁵ www.highways.gov.sk.ca/special-weights/ (7 July 2016).

⁶ The Ministry of Highways and Infrastructure, *2015-16 Annual Report*, p. 3.

⁷ <http://conf.tac-atc.ca/english/annualconference/tac2011/docs/p1/podborschynski.pdf> (27 September 2016).

More large vehicles increases the risk of overweight or over-dimension vehicles travelling on provincial highways.⁸

Figure 1 – Increase in Large Vehicles Registered in Saskatchewan from 2010 to 2014

| Type of Vehicle | Number of Registered Vehicles | | Percentage Increase (Decrease) |
|--|-------------------------------|---------|--------------------------------|
| | 2010 | 2014 | |
| Vans (light & heavy, commercial & private) | 78,985 | 66,104 | (16.3)% |
| Commercial & farm straight trucks | 117,797 | 127,510 | 8.2 |
| Truck tractors (semi power units) | 19,453 | 26,385 | 35.6 |
| Trailers (commercial, private, farm) | 177,927 | 212,929 | 19.7 |

Source: SGI, 2014 TAIS Annual Report, p. 46. www.sgi.sk.ca/about/publications/collisionstats/2014.html (16 December 2016). 2014 was the most recent information available at December 2016.

Overweight vehicles can damage both pavement and bridges. Overweight vehicles can cause rutting,⁹ potholes, and other distresses to the pavement and bridges. Increased damage to provincial highways increases the frequency in which they need repairs. In addition, overweight vehicles pose safety risks to the driving public. Overweight vehicles may have increased stopping distances and decreased handling capabilities, increasing their risk of being involved in collisions.

Over-dimension vehicles also have increased the risk of collisions as:

- › Wider loads may obstruct driver views, take up more than one lane, or obstruct signals (e.g., turning and brake lights)
- › Tall loads are more likely to tip over, fall off the trailer (e.g., bales falling off onto nearby vehicles), or hit overhead infrastructure (e.g., bridges, power lines)
- › Long loads need more room to turn than normal-length loads

While vehicle weight and dimension as the cause of collisions are not tracked; statistics show large vehicles, when in a collision, are more often involved in fatal collisions. For example, in 2014, large vehicles were involved in 3% of Saskatchewan's total collisions and 11% of total fatal collisions.¹⁰

The Ministry estimates it spends at least \$10 million each year to repair damage caused by overweight vehicles to provincial highways. In 2015-16, the Ministry spent a total of \$140.9 million on provincial highway repairs.

Effective enforcement of vehicle weight and dimension requirements reduces traffic safety risks and costly damage to the provincial highway system.

⁸ Overweight and over-dimension vehicles are vehicles that exceed weight and dimension regulations and any permits obtained.

⁹ Rutting is surface distortions in the wheel paths caused by either wear or heavy loads, or a combination of the two.

¹⁰ SGI, 2014 Traffic Accident Information System Annual Report, p. 42.



3.0 AUDIT OBJECTIVE, SCOPE, CRITERIA, AND CONCLUSION

The objective of this audit was to assess whether the Ministry of Highways and Infrastructure had effective processes, for the 12-month period ended August 31, 2016, to enforce vehicle weight and dimension requirements on provincial highways.

We did not examine the appropriateness of Saskatchewan legislation related to vehicle weight and dimensions.

To conduct this audit, we followed the standards for assurance engagements published in the *CPA Canada Handbook – Assurance*. To evaluate the Ministry's processes, we used criteria based on our related work, reviews of literature reports of other auditors, and consultations with management. The Ministry's management agreed with the criteria (see **Figure 2**).

We examined the Ministry's related policies and procedures, interviewed Ministry staff responsible for enforcement, and reviewed related documentation. We sampled investigations, fines issued to vehicle operators, the Ministry's approval of permits to exceed vehicle weight and dimension regulations, and enforcement activities. We worked with the Ministry to preserve the confidentiality of vehicle operator information.

Figure 2—Audit Criteria

| |
|---|
| Processes to: |
| 1. Promote compliance |
| 1.1 Educate commercial vehicle owners and operators on vehicle weight and dimension regulations and consequences of non-compliance with regulations |
| 1.2 Co-ordinate compliance activities with other enforcement agencies (e.g., RCMP, municipal police forces) |
| 2. Establish enforcement requirements |
| 2.1 Set risk-based priorities in enforcement plan (e.g., risk of non-compliance, required resources, enforcement strategies, performance measures) |
| 2.2 Set enforcement guidelines for staff |
| 2.3 Establish criteria to grant exceptions (permits, Minister's Orders, agreements) |
| 3. Enforce compliance |
| 3.1 Identify non-compliance through completion of enforcement activities |
| 3.2 Investigate complaints received |
| 3.3 Monitor granted exceptions |
| 3.4 Report on effectiveness of enforcement activities |
| 4. Address and report non-compliance |
| 4.1 Require prompt action on non-compliance and serious risks |
| 4.2 Escalate action on continued non-compliance |
| 4.3 Report non-compliance information and serious risks to commercial vehicle owners and operators, senior management, and the public |

We concluded the Ministry of Highways and Infrastructure's processes, for the 12-month period ended August 31, 2016, were not effective in enforcing vehicle weight and dimension requirements on provincial highways.

The Ministry of Highways and Infrastructure needs to:

- › **Rationalize, in writing, its vehicle enforcement activity expectations based on a risk assessment to confirm planned enforcement activities are sufficient**
- › **Complete vehicle enforcement activities as planned**

- › Evaluate results of joint-enforcement activities, and complete and document investigations consistent with its established processes
- › Periodically evaluate and report to senior management on the effectiveness of vehicle enforcement activities

4.0 KEY FINDINGS AND RECOMMENDATIONS

In this section, we set out the criteria (expectations) in italics, and describe our key findings along with related recommendations.

4.1 Ministry Promotes Compliance with Weight and Dimension Requirements

We expected the Ministry would educate vehicle owners and operators on vehicle weight and dimension regulations including penalties for non-compliance.

4.1.1 Vehicle Operators Educated on Weight and Dimension Requirements

The Ministry works closely with Saskatchewan Government Insurance (SGI) to educate vehicle owners and operators because SGI administers the Saskatchewan Auto Fund (Fund). The Fund is the province's required auto insurance program. This program includes driver licensing and vehicle registration.

Each year, the Ministry and SGI together publish the *Saskatchewan Truckers' Guide* (Guide). They make the Guide available at licence issuers, weigh scale stations, and on the Ministry's website. As **Figure 3** shows the Guide summarizes key information about trucking in Saskatchewan into a single document.

Figure 3—Content of Saskatchewan Truckers' Guide 2016^A

- 1 National Safety Code (NSC)
- 2 Certificate of Safety Fitness
- 3 Carrier Profile
- 4 Compliance Review Program (CRP)
- 5 Conditions of Carriage/Bills of Lading
- 6 Facility Audits
- 7 Record-Keeping Requirements
- 8 Licensing
- 9 International Registration Plan (IRP)
- 10 Inter-jurisdictional Operation
- 11 Commercial Periodic Medical Reporting
- 12 Drug and Alcohol Testing (Travelling to the U.S.)
- 13 Allowed Uses of Commercial Vehicles
- 14 Insurance Requirements
- 15 Periodic Motor Vehicle Inspection (PMVI) Program
- 16 Permits**
- 17 Federal Hours of Service
- 18 Provincial Hours of Service
- 19 Trip Inspection
- 20 Commercial Vehicle Safety Alliance (CVSA) Inspections**
- 21 Load Security

^A **Bolded items** directly relate to requirements for vehicle weights and dimensions.



| |
|---|
| 22 Dangerous Goods |
| 23 TDG Guidelines for Training Criteria |
| 24 Weigh Scales and Enforcement |
| 25 Gross Weight Chart |
| 26 Saskatchewan Vehicle Weights and Dimensions |
| 27 Permit Condition Guidelines for Provincial Highways |
| 28 Provincial Sales Tax |
| 29 Fuel Tax |
| 30 Contacts |
| Weights Map Fold-out |
| Dimension Reference Chart Fold-out |

Source: www.highways.gov.sk.ca/adx/asp/adxGetMedia.aspx?DocID=1511,140,1,Documents&MediaID=9516&Filename=Website+Version+of+2016+Truckers'+Guide.pdf (16 December 2016).

^A **Bolded items** directly relate to requirements for vehicle weights and dimensions.

For vehicle weights and dimensions, the 2016 Guide:

- › Explains vehicle inspections
- › Sets out weigh scale station requirements (e.g., it is an offence to not report to a weigh scale station when signalled to do so) and enforcement activities (e.g., issuance of fines)
- › Refers to the Act and Regulations that set out fine amounts (e.g., \$10 for each 50 kilograms of excess weight if the excess weight is less than 1,000 kilograms)
- › Specifies allowable vehicle weights and dimensions (e.g., maximum vehicle weights for different truck types)
- › Identifies permits required to transport loads exceeding weight and dimension limits and processes to obtain them
- › Explains and shows weight limits by provincial highway

Also, through its website, the Ministry makes other useful information publicly available to vehicle operators. For example, its publicly available *Weights and Dimension Administration Manual* helps vehicle operators to determine whether their vehicle meets weight and dimension requirements;¹¹ a current map shows weigh scale station locations.¹²

Ministry Highway Transport Patrol Officers (Highway Officers) and transport investigators provide presentations to transportation industry stakeholders (e.g., commercial trucking companies) upon request. For example, between September 2015 and August 2016, one member of the CVE branch made 25 presentations to stakeholders. While often not the primary focus, these presentations discuss Saskatchewan's vehicle weight and dimension requirements.

4.2 Criteria Established to Grant Exceptions to Vehicle Weights and Dimensions Requirements

We expected the Ministry to establish criteria for granting permits for exceptions to allowable vehicle weights and dimensions requirements.

¹¹ www.sgi.sk.ca/businesses/commercialcarriers/standards/weightsdimensions.html (16 December 2016).

¹² <http://highways.gov.sk.ca/adx/asp/adxGetMedia.aspx?DocID=610,149,1,Documents&MediaID=10055&Filename=Weight+Class+Map+June+10%2c+2016.pdf> (16 December 2016).

The Act states that no person, without a permit, shall operate a vehicle on provincial highways that exceeds the Regulations.¹³ Vehicle operators can obtain permits for excessive vehicle height, width, length, or weight (weight and dimension permits).

The Ministry is responsible for weight and dimension permits; it has delegated the administration of issuing permits to SGI.¹⁴ SGI, through its permit office, receives permit applications, issues approved permits, and keeps a record of approved permits using a computer system. These include weight and dimension permits.

From September 1, 2015 to August 31, 2016, SGI issued over 6,500 annual weight and dimension permits (i.e., about one-half were weight, and one-half were dimension permits). This included both permits that were approved by SGI and permits that were approved by the Ministry. In 2015-16, the Ministry and SGI collected a combined total of about \$1 million from issued permit fees to allow overweight or over-dimension vehicles to operate on provincial highways.

The Ministry established criteria for permits and documents them in its *Weights and Dimensions Administration Manual*. It keeps its criteria and Manual current. For example, in 2015, the Ministry changed its requirements for moving buildings, and hauling bales. It updated its Manual accordingly. It shares this Manual electronically with SGI.

This Manual sets out what permits can be issued, who can approve them and when. For example, under the Ministry's delegation of authority, SGI can approve permits for vehicles with a gross vehicle weight of less than 400,000 kilograms; the Manual requires the Ministry to review all permit requests above that limit.¹⁵

We found the Ministry did not have a process to verify that SGI administered permits consistent with its requirements. For example, the Ministry did not know if SGI updated its permit computer system to reflect its 2015 changes.

To determine whether SGI administered weight and dimension permits consistent with the Ministry's requirements, we tested a sample of permits the Ministry approved. We found the Ministry reviewed and approved these permits in accordance with the Manual.

In addition, the Ministry enters into agreements with operators of large vehicles with a business need to routinely haul overweight and/or over-dimension loads (e.g., hauling ore from a mine to a processing facility). Under these agreements, it allows these operators to haul overweight and/or over-dimension loads over specified routes. In return, these operators agree to compensate the Ministry in part for damage they cause. In 2015-16, the Minister charged these operators \$1.5 million and spent \$0.7 million on related provincial highway projects.

It is not feasible for the Ministry to determine the damage overweight and over-dimension vehicles cause because of wear and tear of routine traffic. Consequently, the Ministry does not attempt to set fees for weight and dimension permits or levies from operators of large vehicles at amounts equivalent to the cost of repairs.

¹³ *The Highway and Transportation Act, 1997*, section 36.

¹⁴ www.highways.gov.sk.ca/trucking-permits/ (7 July 2016).

¹⁵ The Ministry is also required to approve permits for vehicles with a gross vehicle weight greater than 70,000 kilograms that will be travelling over bridges.



4.3 Enforcement Guidelines Exist

We expected the Ministry to have detailed enforcement guidelines for staff to follow. Also, the Ministry would provide training to new staff related to vehicle weight and dimensions.

The Ministry has authority to enforce federal, provincial, and municipal regulations related to transportation and licensing on provincial highways. The Ministry, through its CVE Branch, administers and enforces weight and dimension regulations along with its other transportation enforcement activities (for example, a vehicle inspection would check various requirements like vehicle and operator safety, dangerous goods, weights, and dimensions as applicable).¹⁶

At October 2016, the CVE Branch operated two regions—North and South. It equipped its regions with 32 Highway Officers, 7 transport investigators, 10 weigh scale stations, and 3 remote vehicle inspection stations.¹⁷ See **Figure 4** for details.

Figure 4—Highway Officers and Weigh Scale Stations in Saskatchewan at October 2016

| Location / Detachment | Region | Number of Highway Officers | Number of Transport Investigators | Number of Weigh Scale Stations |
|-----------------------|--------|----------------------------|-----------------------------------|--------------------------------|
| Regina | South | 2 | 1 | 1 |
| Moose Jaw | South | 2 | 0 | 0 |
| Estevan | South | 2 | 0 | 1 |
| Moosomin | South | 3 | 0 | 1 |
| Swift Current | South | 3 | 0 | 1 |
| Yorkton | South | 4 | 1 | 1 |
| Wynyard | South | 1 | 1 | 0 |
| Melfort | North | 3 | 1 | 1 |
| Hudson Bay | North | 1 | 0 | 0 |
| Prince Albert | North | 3 | 0 | 0 |
| Meadow Lake | North | 2 | 1 | 0 |
| Saskatoon | North | 2 | 1 | 1 (Langham) |
| Clavet | North | 2 | 0 | 1 |
| Lloydminster | North | 1 | 1 | 1 |
| Kindersley | North | 1 | 0 | 1 |
| Total | | 32 | 7 | 10 |

Source: Ministry of Highways and Infrastructure maps and records.

Highway Officers are the primary law enforcement members responsible for enforcing transport regulations for commercial vehicles, including those for weights and dimensions, on provincial highways. Highway Officers:

- › Patrol provincial highways in their assigned region looking for all types of violations including weight and dimension violations. To patrol provincial highways, they operate specially-equipped vehicles that include portable scales to weigh trucks on the roadside

¹⁶ <http://highways.gov.sk.ca/cve/> (24 November 2016).

¹⁷ Remote Vehicle Inspection stations are unmanned scales/cameras that weigh and photograph trucks as they pass through. The information gathered by these stations is mainly used in investigations. This information is not used to issue fines.

- › Inspect vehicles to identify potential violations including whether vehicle operators possess appropriate permits
- › Operate weigh scale stations in their assigned region; these are situated on provincial highways throughout the province
- › Lead or participate in enforcement activities with others (joint-enforcement activities)
- › Attend court for charges laid or fines issued

Transport investigators are responsible for investigating complaints received from the public, members of the trucking industry, or from Highway Officers. The Ministry had clear policies and procedures for its transport investigators to follow (i.e., the *Transport Investigation Guide*). The Investigation Guide requires transport investigators to document investigative steps completed (e.g., photos of the materials/equipment hauled). In addition, the Investigation Guide requires transport investigators to complete investigations within six months from receipt of complaint. Provincial legislation requires the Ministry to lay a charge within that timeframe.¹⁸

In addition, the Minister of Justice has appointed both Highway Officers and transport investigators as special constables under *The Police Act, 1990*. This makes them peace officers and gives them policing responsibilities under that Act.

The CVE Branch maintains a *Transport Compliance Policy and Procedures Manual*. It makes this manual readily available to all Highway Officers and transport investigators. The Ministry requires Highway Officers to focus on enforcing regulations for commercial vehicles¹⁹ on provincial highways.²⁰

This manual sets out expectations and provides guidance for all enforcement activities including those related to weight and dimension. For example, it provides standard operating procedures to verify vehicle operator permits, to weigh vehicles, and for issuing fines.

If the Ministry changes the Manual, it requires all Highway Officers and transport investigators to read the changes and sign a declaration indicating they have done so.

The Ministry requires all new Highway Officers (recruits) to complete a specialized training program. The program includes two weeks dedicated to weight and dimensions—one week in the classroom reviewing the manual and one week of practical experience with experienced Highway Officers. Recruits must write and pass an exam that includes a portion dedicated to weight and dimension before graduation to being a Highways Officer.

As Ministry policy requires, we found the CVE branch had each weigh scale station scale certified annually.

¹⁸ *The Summary Offences Procedure Act, 1990*, s. 4(3).

¹⁹ Per *The Security of Loads Regulations, 2013*, commercial vehicle means a vehicle that is used to transport goods; and is a truck, truck tractor, or trailer, or combination of them, that has a registered gross weight of more than 5,000 kilograms.

²⁰ Ministry of Highways and Infrastructure, *Transport Compliance Policy and Procedures Manual – Enforcement Protocol Mandate* (section 101-1).



4.4 Rationale for Annual Enforcement Activities Needed

We expected the Ministry would periodically assess risks of vehicle owners and operators not complying with provincial vehicle weight and dimension regulations. We expected the Ministry would use these risks to develop a risk-based enforcement plan that would guide the nature and extent of each year's enforcement activities.

The Ministry did not formally assess the risks of vehicle operators not complying with weight and dimension requirements or not providing effective enforcement. In addition, it could not show whether it carried out sufficient enforcement.

We found documentation of the risks associated with weight and dimension was limited but implicit in some of the Ministry's documents. For example, the Ministry's *Transport Investigation Guide* indicated inspectors should give priority to investigations that may jeopardize the safety of the public.

Each year, the CVE Branch developed an annual work plan to document the Ministry's expectations for the upcoming year. The content of the work plan was generally consistent from year-to-year. For the first time, the 2015-16 work plan included provincial objectives for key enforcement activities.

The 2015-16 work plan set out:

- ▶ Key enforcement responsibilities of certain CVE Branch positions (e.g., regional managers, Highway Officers)
- ▶ General enforcement activities to complete in the upcoming year (e.g., operate weigh scale stations, patrol provincial highways, carry out inspections)
- ▶ Guidance to help prepare Highway Officer schedules. For example, Highway Officer supervisors were to direct officer resources within detachments based on current commercial vehicle traffic patterns. Regional managers and Highway Officer supervisors should identify seasonal priority activities (e.g., spring weight restrictions). Highway Officer work schedules should address activity in problem areas of detachments as much as possible based on history
- ▶ Provincial objectives (targets) for key enforcement activities. The provincial objectives provided annual targets for staff enforcement activities. For example, it expected each weigh scale station to operate three shifts per week—22.5 hours per week. It expected each Highway Officer to complete 520 vehicle inspections per year²¹

The annual work plan shows the Ministry considered not only the nature of enforcement activities to undertake in the upcoming year, but its inclusion of provincial objectives shows it considered the extent of these activities. However, the Ministry did not have adequate rationale to support how it determined these objectives.

²¹ The Ministry follows the Commercial Vehicle Safety Alliance (CVSA) guidelines for inspections. Under these guidelines there are varying levels of inspections. For example, a level 1 inspection is the most robust inspection. The provincial objective of 520 inspections included all inspection levels.

Furthermore, neither the work plan nor other documents showed how the Ministry planned to manage the following known risks or changes.

- › First, they did not include a known risk of not detecting overweight, over-dimension, or unsafe commercial trucks avoiding operating (open) weigh scale stations. By law, all commercial vehicles greater than 10,000 kilograms are required to drive through the weigh scale station for assessment when stations are operating.

Highway Officers advised us that commercial truck operators may advise other truck operators travelling on the same route that the weigh scale station is open. They noted these operators may use alternate routes (e.g., municipal grid roads) to avoid the weigh scale station to avoid being weighed or assessed. They further noted additional Highway Officers are not readily available when the weigh scale station is open to help RCMP or municipal policing services patrol alternate routes typically used.

To determine whether trucks avoided open weigh scale stations, on a selected day in September 2016, we observed truck traffic on a municipal grid road identified as commonly used as an alternate route. We recorded the number of trucks using the grid road for one hour before and after the nearby weigh scale station was open. We found truck traffic on the grid road increased by 50% after the weigh scale station opened. This supported staff's concern that commercial truck operators may intentionally avoid open weigh scale stations.

- › The impact of the Regina Bypass route on weight enforcement activities.

The Ministry identified in its 2013 West Regina Bypass²² Functional Study that the route of the Regina Bypass would not go through two of its weigh scale stations—a station located west of Regina on Highway 1, and another located northwest of Regina on Highway 11. This would make these stations ineffective. In 2012, the Ministry removed the Highway 1 station to allow for construction of new interchanges.

The 2015-16 work plan did not identify changes in enforcement activities to compensate for closure of the Highway 1 weigh scale station.

Also, at December 2016, the Ministry had not yet decided how best to enforce vehicle weight and dimension regulations once the Regina Bypass was complete (e.g., build new weigh scale stations). It was aware the Bypass was scheduled to be constructed by October 2019. At December 2016, the Ministry did not know when it expected to finalize alternate weight enforcement plans.^{23, 24}

In addition, neither the 2015-16 work plan nor other documents indicated how many, where, or when joint-enforcement operations should occur in the upcoming year. Also, we found it had not formalized its internal best practice of a 60% to 40% split between provincial highway patrol enforcement activities and operating weigh scale station enforcement activities. Both north and south regions confirmed that they assign Highway Officers using this split as a guideline.

²² The Regina Bypass is a significant project to build new provincial highway and interchanges to reduce traffic congestion, and improve traffic safety in and around Regina. The Regina Bypass will route heavy traffic around Regina, and provide efficient access to the Global Transportation Hub.

²³ Regina Bypass project schedule available at www.reginabypass.ca/project/project-schedule (15 December 2016).

²⁴ www.cbc.ca/news/canada/saskatchewan/regina-bypass-project-40-per-cent-complete-1.3895253 (15 December 2016).



As a result, we found that it was unclear whether the enforcement activities expected in the annual work plan and manuals focused enforcement activities on the riskiest areas, and whether they were sufficient to reduce the risk of commercial vehicles not following weight and dimension regulations to an acceptable level.

Without appropriate rationale for enforcement activity expectations, the Ministry is unable to demonstrate the expected level of activity is the right level of activity to create an enforcement presence to respond to risks. Also, rationale is needed to support resources required by the CVE branch and to ensure that Ministry expectations are attainable.

- 1. We recommend that the Ministry of Highways and Infrastructure rationalize, in writing, the nature and extent of its annual vehicle weight and dimension enforcement activities based on assessed risks.**

4.5 Enforcement Activity Targets Not Always Met

We expected the Ministry would carry out enforcement activities consistent with a risk-based enforcement plan (including those activities carried out with partner agencies [RCMP, municipal policing services]). The Ministry would track and record the results of enforcement activity. In addition, management would supervise enforcement staff to determine whether they followed enforcement guidelines.

4.5.1 Extent of Enforcement Activities Lower than Planned

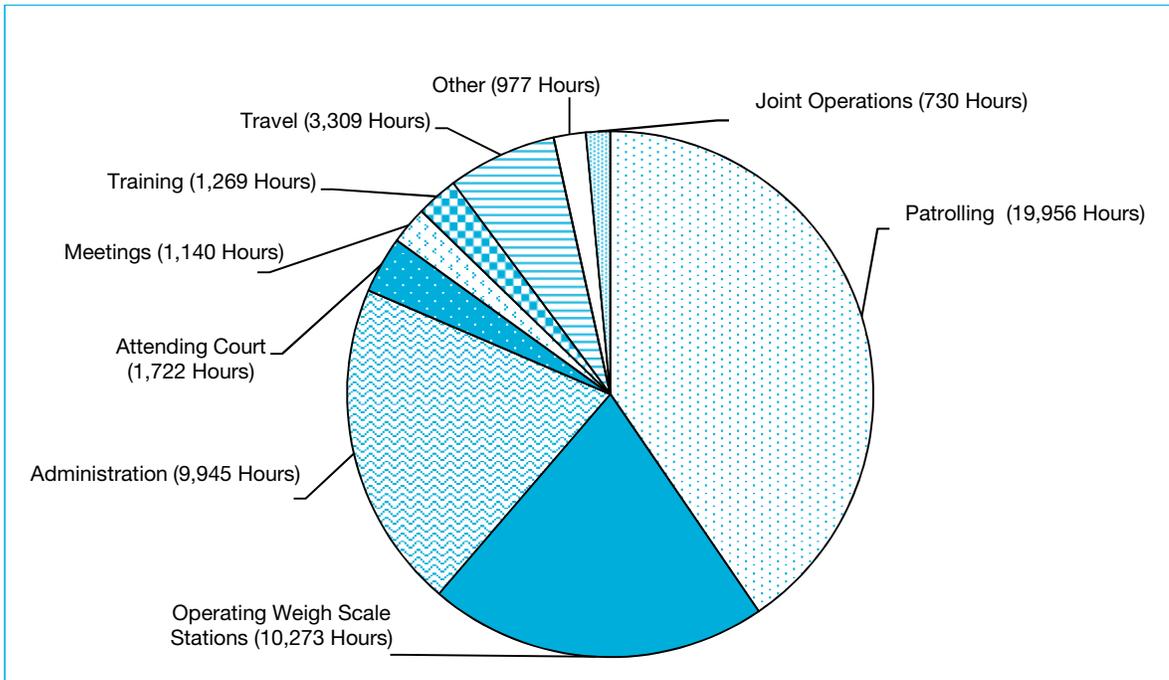
The Ministry did not carry out its enforcement activities consistent with its expectations (e.g., annual work plan or informal best practice). It did not use its work plan to guide the extent of its enforcement activities.

Management (i.e., regional managers and supervisors) are responsible for assigning work to and supervising Highway Officers' and transport investigators' enforcement activities. While all four supervisors we asked were aware of the requirements in the work plan, each acknowledged they did not regularly use those requirements when preparing officer schedules or in monitoring their region's enforcement activities.

Management required Highway Officers and transport investigators to prepare work plans. These work plans set work goals for each Highway Officer and transport investigator. Management met with staff twice during the year to discuss the work plans. They used staff work plans as one method to monitor activity. We found this process was operating as expected.

The Ministry uses an IT system called Officer Activity Tracking System (OATS) to track day-to-day activities of Highway Officers. OATS tracks Highway Officer activity by 11 main categories (e.g., training, operating weigh scale stations, etc.), the number of inspections performed, and the number of fines issued. See **Figure 5** for the breakdown of these activities by type.

Figure 5—Summary of Enforcement Activities Completed by CVE Branch from September 1, 2015 to August 31, 2016



Source: Ministry's Officer Activity Tracking System.

Our testing found Highway Officers entered enforcement activity data into OATS within a reasonable timeframe (i.e., within one week).

Even though OATS had up-to-date data about enforcement activities, the Ministry's use of this data was limited. Management (i.e., regional managers and Highway Officer supervisors) indicated that they informally reviewed data (e.g., about weekly) and used regular meetings with Highway Officers to monitor activity. We found no evidence of these reviews.

The Branch staff did not prepare written summaries of completed enforcement activities, or comparisons of completed enforcement activities to work plan expectations. Rather the Director of the CVE Branch met with senior management each week to verbally discuss CVE Branch activities. The Ministry did not keep notes of these meetings.

When we analyzed the data in OATS, we found that the Ministry did not meet all of the provincial objectives set out in the CVE Branch 2015-16 work plan or its guideline of a 60% to 40% split of time between patrol and weigh scale station enforcement activities.

From September 1, 2015 to August 31, 2016:

- ▶ The Ministry's 10 weigh scale stations were open, in total, for 10,273 hours. This is below the 2015-16 work plan provincial objective of operating each weigh scale station at least three shifts per week—11,700 hours per year.²⁵

²⁵ Based on 10 weigh scale stations, this meant the Ministry expected weigh scale stations to be open for at least 11,700 hours.



- › The CVE Branch spent 66% of its time patrolling provincial highways and 34% of its time operating weigh scale stations. It spent less time operating weigh scale stations than its informal best practice of 40%.

When we compared data in OATS to the provincial objectives set in the 2015-16 work plan, we found:

- › One of five detachments we tested operated their weigh scale station, on average, 14 hours per week; less than the provincial objective of a minimum of 22.5 hours per week
- › Three of six Highway Officers and supervisors we tested did between 22% and 50% less than the provincial objective of 520 inspections per year for Highway Officers and 400 inspections per year for supervisors
- › Two of six Highway Officers we tested did less than the provincial objective of at least 25 Level 1 inspections per officer per quarter by only doing 16 and 17 Level 1 inspections²⁶ respectively for the quarters tested

Not carrying out the expected amount of enforcement activities increases the risk that the Ministry is not sufficiently enforcing legislation or maintaining a sufficient enforcement presence. Reduced enforcement increases the chances of vehicle operators choosing to operate vehicles that exceed provincial weight and dimension requirements. This in turn increases the risk to public safety and damage to provincial highways.

2. We recommend that the Ministry of Highways and Infrastructure complete vehicle weight and dimension enforcement activities as planned.

4.5.2 Results of Joint Operations Not Evaluated

Ministry staff did not consistently summarize the results of joint-enforcement operations consistent with Ministry expectations.

The Ministry's *Transport Compliance Policies and Procedures Manual – Joint Operations*⁷ requires regional managers or their designate to compile and evaluate the results whenever they participate in a joint-enforcement operation (using a template form called a focused activity report) and submit these results to the director.

As shown in **Figure 5**, from September 2015 to August 2016, staff spent about 730 hours on joint operations—about 2% of their time. During this period, the Ministry participated in over 30 joint-enforcement events comprised of 12 larger joint operations and 20 blitzes. Blitzes are targeted, local enforcement activities that may include Highway Officers from other regions and/or other enforcement agencies (RCMP, municipal police, SGI vehicle inspectors).

²⁶ A CVSA level 1 inspection is a detailed inspection of the driver's records (e.g., licence, medical, permits), vehicle (e.g., brakes, tires), and how the load is secured. <http://cvsa.org/inspections/inspections/all-inspection-levels/> (20 December 2016).

The Ministry planned joint operations with either the RCMP or a municipal police service. This included four large annual joint operations. For example, the Ministry shared its plan for the 2016 Operation Roadcheck event with participants including SGI, RCMP, and Saskatoon Police Service.²⁷

Management gave us a list of joint enforcement events in which the Ministry had participated over the past year. However, it did not have focused activity reports for most of the events on the list. It could not show us how it had evaluated the results of events as its Manual expected. For example, it had not determined whether a high number of overweight vehicles were detected in a particular area and decided whether it needs to reallocate resources accordingly.

Not consistently evaluating the results of joint-enforcement activities reduces the Ministry's ability to plan for and make informed decisions about the nature, extent, and location of its enforcement activities.

3. We recommend that the Ministry of Highways and Infrastructure follow its established policy requiring Highway Officers to report the results of completed vehicle weight and dimension joint-enforcement activities.

4.6 Fines Issued in Accordance with Legislation

We expected that Highway Officers and transport investigators would take action in accordance with legislation on identified non-compliance with vehicle weight and dimension regulations. We expected escalated consequences would exist for commercial vehicle owners or operators that continually do not comply with transport regulations.

From September 2015 to August 2016, Highway Officers issued about 1,250 fines totalling almost \$1.3 million to vehicle operators assessed as not complying with weight and dimension requirements. Highways Officers use a Ministry-supplied spreadsheet template to calculate fines.

Our review of this template found that its calculations and fine amounts agreed to relevant legislation. For the fines we tested, each fine was issued consistent with related legislation and Ministry policy.

The Ministry leverages SGI's responsibilities under *The Traffic Safety Act* and *The Automobile Accident Insurance Act*. These Acts make SGI responsible for issuing driver's licences to those eligible (including commercial drivers). These Acts set actions (sanctions) SGI can take when drivers do not comply with traffic safety laws (e.g., suspend driver's licences or require drivers to take additional training).

The Ministry and other policing services report vehicles found not following vehicle weight and dimension regulations to SGI. SGI maintains commercial carrier records and

²⁷ Operation Roadcheck is an annual three-day vehicle inspection event across North America where enforcement agencies conduct compliance, enforcement, and educational initiatives targeted at commercial vehicle and driver safety. <http://cvsa.org/program/programs/international-roadcheck/> (25 November 2016).



commercial driver records. Commercial carriers and commercial drivers receive their commercial carrier records and commercial driver records from SGI.²⁸

Each commercial carrier record contains statistics related to vehicle weight and dimension violations, as well as information on the individual weight and dimension fines. The Ministry and SGI consider weight and dimension violations as non-critical under the inspection guidelines. Because they are non-critical, they do not impact commercial carrier safety ratings and do not impact insurance rates for commercial carriers.

Each commercial driver record contains statistics related to vehicle weight and dimension violations.²⁹ SGI's legislation requires commercial carriers to annually self-review their commercial drivers' records. Also, this legislation requires commercial drivers to report any convictions, including weight and dimension violations, to their employer.³⁰ Commercial carriers use this information to monitor their drivers and when hiring drivers.

4.7 Investigations Not Consistently Documented

We expected that the Ministry would track complaints received related to weights and dimensions requirements. We expected the Ministry to investigate complaints in accordance with its guidelines.

The Ministry tracks significant complaints related to weights and dimensions instead of all complaints received.

The Ministry received complaints in a variety of ways: calls or emails to weigh scale stations, Highway Officers or transport investigators, and the Ministry hotline. It forwards complaints to the transport investigator responsible for the related region. Transport investigators determine whether to investigate complaints.

The Ministry used a province-wide database to track all ongoing and completed CVE Branch investigations. The database included the date of complaint, the file number, the name of the accused, the category of the investigation, and the date the investigation was concluded. From September 2015 to August 2016, CVE staff completed 22 investigations.

For 10 investigations we tested:

- ▶ Two files did not document the investigative work done. Because of missing documentation, we were unable to determine if these investigations resulted in charges laid or fines issued.
- ▶ Two investigations were not completed within six months from receipt of the complaint (one was ongoing for more than nine months after receipt, the other was completed seven months after receipt [investigation resulted in a verbal warning]).

Not having properly documented investigations decreases the ability of supervisors to monitor the quality of work done and increases the risk that the complaint was not properly investigated. Furthermore, when investigations are not completed within the

²⁸ A commercial carrier is the holder of a certificate of registration for a commercial vehicle. A commercial driver is a licensed driver of a commercial vehicle.

²⁹ Our audit, reported in our *2016 Report - Volume 1* Chapter 15, of SGI's processes to confirm only qualified drivers remain licensed found that SGI's processes effectively tracked convictions on driver records.

³⁰ *The Commercial Vehicle and Drivers (Record-Keeping) Regulations*, sections 4 and 11.

required six months, the Ministry cannot lay a charge (e.g., issue a fine) for the infraction committed, if any.

- 4. We recommend that the Ministry of Highways and Infrastructure follow its established transport investigation policies and procedures for completing investigations related to vehicle weights and dimensions.**

4.8 Determination of Effectiveness of Enforcement Activities Needed

We expected the Ministry to periodically determine and report to senior management on the effectiveness of its enforcement activities including whether it completed enforcement activities as planned.

As the Ministry did not formally assess the effectiveness of its enforcement activities or determine whether it completed them consistent with its 2015-16 work plan, it did not provide this information to senior management.

As discussed above, the OATS database contains useful up-to-date information on completed enforcement activities. We found the Ministry did not use this information to develop meaningful reporting for senior management.

Without such reports it is difficult for senior management to monitor the effectiveness of enforcement activities and to make decisions to adjust enforcement activities accordingly (e.g., increase or decrease enforcement resources, change enforcement strategies).

- 5. We recommend that the Ministry of Highways and Infrastructure periodically report to senior management on the effectiveness of its activities for enforcing vehicle weight and dimension requirements, including a comparison of planned to actual activities.**

In addition, the Ministry does not give legislators or the public information on commercial vehicles found not following transport requirements. While this reporting is not generally accepted practice across Canada at this time, we found one Canadian jurisdiction (i.e., Manitoba) published pertinent statistics each year. It reported the number of vehicles with which enforcement officers had contact, permits granted, weights and dimensions fines issued, and fines for exceeding permits.³¹ The Ministry could consider publishing similar information. Such information would provide legislators and the public with insight on the effectiveness of the Ministry's enforcement activities.

³¹ www.gov.mb.ca/mit/reports/annual/2015_2016_annual.pdf (14 November 2016).



5.0 SELECTED REFERENCES

- Auditor General of Alberta. (2009). *Report of the Auditor General, October 2009, Commercial Vehicle Safety*. Edmonton: Author.
- Auditor General of Ontario. (2008). *2008 Annual Report, Chapter 3, Commercial Vehicle Safety and Enforcement Program*. Toronto: Author.
- Liu, A., Bell, L., Stamatinos, G. (2007). *Provincial Highway Vehicle Weight Management Review and New Policy Development in Saskatchewan*. Saskatoon: Author. <http://conf.tac-atc.ca/english/resourcecentre/readingroom/conference/conf2007/docs/s15/liu.pdf> (15 April 2016).
- New South Wales Audit Office. (2009). *Improving Road Safety – Heavy Vehicles*. Sydney: Author.
- Podborochynski, D., Berthelot, C., Anthony, A., Marjerison, B., Litzenberger, R., Kealy, T. (2011). *Quantifying Incremental Pavement Damage Caused by Overweight Trucks*. <http://conf.tac-atc.ca/english/annualconference/tac2011/docs/p1/podborochynski.pdf> (19 December 2016).
- UK National Audit Office. (2010). *Enforcement of regulations on commercial vehicles*. London: Author.