



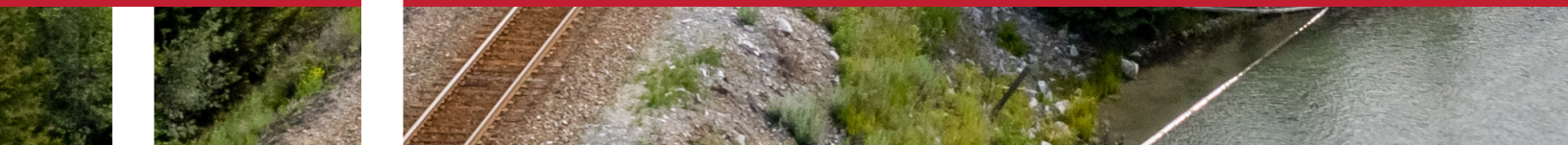
**CPKC**



# Dedicated to Grain

Grain Service Outlook Report for the 2023-2024 Crop Year

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## Message from the President and Chief Executive Officer

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On behalf of Canadian Pacific Kansas City (“CPKC”), it is my pleasure to present our 2023-2024 Grain Service Outlook Report. This is our sixth annual grain report, and our first as CPKC. This report describes our plan to safely and reliably transport Canada’s grain crop for export to international markets.

Following a rigorous and thorough regulatory process, on March 15, 2023, the United States (“U.S.”) Surface Transportation Board (“STB”) authorized the merger of Canadian Pacific (“CP”) and Kansas City Southern (“KCS”), recognizing the many public benefits of the transaction. CP and KCS officially merged on April 14, 2023, to create CPKC, the first and only Class 1 railway network uniting North America by seamlessly connecting Canada, the U.S., and Mexico. Drawing on our strong foundations and heritage, CPKC is now the most relevant rail network in North America. We have unrivalled geographic reach across a 20,000-mile rail network with access from Vancouver to Saint John in Canada, and south to twelve Gulf and Pacific ports in the U.S. and Mexico. Canadian grain customers now have access to our single line service from the Canadian prairies to outlets in the U.S. and Mexico. CPKC is driving competition, building resiliency, and supporting economic growth, trade, and environmental sustainability across the continent.

Following the disappointing drought crop yield in 2021-2022, the 2022-2023 crop year marked a return to more typical grain volumes in Western Canada. CPKC’s grain service was strong throughout the crop year. We ramped up capacity in just a few weeks from historically low volumes of grain moving on the rail network in August to record volumes in late September. Our railroaders achieved this remarkable performance despite customer forecasts at the end of August that suggested the harvest would come in late September, when in fact it came several weeks earlier.

CPKC achieved many records for Canadian grain transportation through the fall and winter period. In October, we broke our all-time monthly record and January 2023 was a record performance for the month of January. We also achieved many weekly records throughout the winter period, demonstrating the strong performance and resiliency of our railway.

Regrettably, by early April, demand for Canadian grain transportation fell dramatically to levels well below customer

forecasts, even though there was still significant grain volume on the prairies to move. This low demand persisted throughout the spring and into summer, resulting in significant unused rail capacity for Canadian grain transportation. Maximizing Canadian grain exports requires customers to use the supply chain capacity available throughout the entirety of the crop year. The grain supply chain simply cannot move all the grain at once if farmers hold off selling their products, waiting for a specific market price. Demand volatility is inconsistent with the Government of Canada’s goal of maximizing grain exports to the world.

As we look towards the upcoming 2023-2024 crop year, CPKC is once again well prepared to move Canada’s grain crop to market, just as we have throughout our 142-year history. We have the capacity on our railway to deliver for our grain customers.

Unfortunately, there are several threats on the horizon to the potential of Canada’s export-driven grain supply chain.

The Government of Canada’s recent decision to resurrect extended interswitching on the prairies risks undermining rail capacity because this policy incentivizes inefficiencies. In the aggregate, depending on how it is used, this public policy choice will cause higher transportation costs for all users of the rail network and elevated greenhouse gas (“GHG”) emissions. Diversion of traffic from Canadian to U.S. rail carriers was the most significant consequence when this policy was tried previously from 2014 to 2017. Extended interswitching lowers the traffic density on Canadian railway networks that enables investment in capacity-enhancing infrastructure, resulting in investment dollars and jobs moving south of the border. Extended interswitching is unquestionably harmful to the interests of Canadian shippers, especially those in the agriculture sector, Canadian consumers, and the Canadian economy. It is fundamentally inconsistent with the goals of building capacity and maximizing volume throughput in the Canadian grain supply chain.

Another concerning policy threat is the federal government’s commitment to introduce legislation prohibiting replacement workers by the end of 2023. Although legislation has not yet been introduced in Parliament, we understand the government intends, as part of a political deal, to prohibit the use of replacement workers during a strike or lockout at federally regulated employers. The most likely outcome

of any such policy is even more frequent labour disruption at Canada's railways, ports, and other critical players in the federally regulated sector.

Union strikes are already one of the most significant challenges to Canadian supply chain performance, reliability and reputation. Unfortunately, we saw the damaging impacts of labour disruption once again recently with prolonged strike activity in July 2023 at port terminals in British Columbia, including at the Port of Vancouver, Canada's largest port. The federal government's willingness to allow strikes to shut down operations at most port terminals in Vancouver for weeks means that it will take months for our supply chains to recover. Capacity was lost each day the strikes continued, with compounding effects on the expected timelines for recovery. The repeated start up and shut down of port operations further hindered supply chain recovery, which is expected to stretch into 2024. There may be impacts for grain harvest transportation this fall because supply chains must catch up on all the traffic that did not move through Vancouver during the strikes. If implemented, the federal government's proposed replacement worker legislation will increase the frequency and duration of labour disruptions, causing even more harm to Canada's grain supply chain.

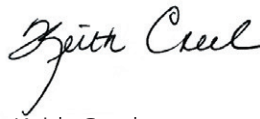
The frequent decision by grain terminal operators in Vancouver to suspend loading grain vessels during periods of inclement weather remains a persistent challenge that undermines the capacity of Canada's grain supply chain.

Delays in grain loading in Vancouver cause significant ripple effects throughout the supply chain, backing up trains and interrupting the smooth, efficient, balanced cycling of railcars from in-country elevators to the port, and back. The Government of Canada, along with the grain terminal operators, unions and other stakeholders, must resolve this constraint, as grain terminals at other ports have, to safely maximize Canada's ability to export grain to international markets, especially during the winter months when rain and snow are frequent in the Vancouver region. This is a major constraint on Canada's ability to export more grain to the world.

These public policy choices represent entirely avoidable headwinds for the performance of Canada's grain supply chain.

As we commence our journey as CPKC, we take pride in our past and look to the future with the same boldness, ambition and fortitude that drove the creation of our railway in 1881. Our team of dedicated railroaders looks forward to delivering for our grain customers during the upcoming 2023-2024 crop year.

Respectfully,



Keith Creel  
President and Chief Executive Officer





## Executive summary

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This report reviews CPKC's strong commitment to delivering for our grain customers, day in and day out. We remain focused on offering the most competitive, resilient and cost-effective transportation service, while driving safety and efficiency improvements. Key highlights of the 2023-2024 report:

- CPKC is uniquely positioned to deliver rail transportation to Canada's agricultural sector as the first transnational railway seamlessly connecting Canada, the U.S. and Mexico. Our new combined rail network brings unrivaled geographical reach to additional North American ports on the Atlantic, Pacific and Gulf coasts. This provides Canada's grain shippers faster access to markets across North America, including many new markets in Mexico, and enhanced routing optionality for transporting Canadian grain and grain products to overseas markets.
- Safety is foundational to everything we do at CPKC. In 2022, the legacy CP network once again led the North American rail industry in safety, achieving the lowest train accident frequency among all Class 1 railroads for the 17th consecutive year. This result is also CP's lowest train accident frequency on record. In 2022, CP also achieved a 40 percent improvement for personal injury safety performance since 2016, marking its second-best year on record.
- Although it is still early in the season, our grain customers currently expect the size of the 2023-2024 Western Canada crop to be consistent with last year. Statistics Canada currently forecasts this year's total crop size at approximately 95.7 Million Metric Tonnes ("MMT") and Western Canadian grain production at approximately 73 MMT. However, dry conditions across the west are raising concerns within the industry that yields may be negatively affected. Customers are currently estimating Western Canadian crop yields in the range of 60 to 70 MMT.
- CPKC is well positioned to transport Canadian grain and grain products throughout the 2023-2024 crop year. Based on current customer forecasts, and subject to demand, CPKC plans to supply the capacity required to move 685,000 Metric Tonnes ("MT") each week when the Port of Thunder Bay is open (generally from August through mid-December, and from April to July). During the winter months when the Port of Thunder Bay is closed, CPKC plans to supply the capacity required to move 525,000 MT of Canadian grain and grain products each week, subject to market demand.
- Given these weekly targets, CPKC expects to supply the capacity required to transport more than 33 MMT of Canadian grain and grain products throughout the crop year, subject to market demand. This performance target is contingent on all elements of the supply chain, including grain customer terminals, ports and vessels, operating with maximum efficiency, reliability, predictability and balance throughout the duration of the crop year. The railway is only one part of a complex, integrated grain supply chain. The supply chain is only as strong as its weakest link. Maximizing capacity and volume throughput requires all elements of the supply chain to operate with coordination, synchronization, efficiency and balance.
- Strike activity in July 2023 by the International Longshore and Warehouse Union ("ILWU") at port terminals across British Columbia, including at Port of Vancouver, may impact fall grain transportation. The federal government allowed the strike activity to continue for weeks, as supply chain capacity was lost through Canada's pacific trade gateway. This lengthy shut down of most port terminals in B.C. caused significant disruption to North American supply chains. The duration of the strike means that supply chain recovery will stretch into 2024, potentially impacting grain transportation.
- Throughout the 2022-2023 crop year, there was significant demand volatility for Canadian grain and grain products. We began the crop year with historically low demand followed by a rapid surge generated by a harvest that came earlier than forecasted by grain customers. In response to the early demand surge, CPKC rapidly ramped up capacity, moving an all-time monthly record of 3.14 MMT of grain products in October. We also set a record for the month of January, moving 2.29 MMT of grain products. Weekly records were achieved for weeks 19, 24, 28 and 29.
- Demand for grain transportation fell dramatically in Week 36 (beginning of April), dropping well below customer forecasts and the capacity we had resourced



on the railway. Grain transportation demand remained low for the balance of the crop year, even though a significant volume of grain remained in storage on the prairies. This resulted in more than 5 MMT of unused capacity for Canadian grain transportation on the CPKC rail network over the course of the 2022-2023 crop year, relative to our supply targets.

- CPKC has completed its more than \$500 million investment to purchase 5,900 new higher-capacity grain hopper cars, which were built in Hamilton, Ontario. We have also leased an additional 1,490 higher-capacity hopper cars. Combined with the legacy KCS high-capacity fleet, CPKC has approximately 18,000 modern hopper cars in service. This powerful CPKC fleet delivers significant capacity gains for Canada's grain supply chain.
- Regrettably, as we look to the upcoming crop year, several factors threaten to undermine the capacity of Canada's grain supply chain. The federal government's

policy decisions to resurrect extended interswitching and its commitment to introduce a prohibition on the use of replacement workers during strikes or lockouts create risks for Canada's supply chains. The continued challenge of loading grain onto vessels during periods of rain or snow in Vancouver must be resolved to maximize capacity and reliability.

- CPKC is sustainability driven. We expect the new combined CPKC network will take more than 64,000 trucks off North American roads, enabling the avoidance of at least 1.9 million tonnes of GHG emissions over the next five years. We are also expanding our hydrogen locomotive program and have announced our intent to enter into a joint venture with CSX to build and deploy additional hydrogen locomotives.

CPKC once again looks forward to delivering for our grain customers during the upcoming 2023-2024 crop year.



## Introduction

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CPKC is pleased to submit its 2023-2024 Grain Service Outlook Report to the Minister of Transport, as required by section 151.01(1) of the *Canada Transportation Act*. This annual report provides an assessment of CPKC's ability to move grain during the upcoming 2023-2024 crop year, taking into account the total volume of grain expected to be moved.

**Part 1** provides an overview of the benefits for our grain customers from the creation of the new CPKC network.

**Part 2** outlines CPKC's hiring and capital investment plans, which are driving significant capacity gains for Canadian grain exports.

**Part 3** reviews the past 2022-2023 crop year, including CPKC's strong performance transporting Canada's grain and grain products to ports for export, and the significant capacity that was unused by our grain customers.

**Part 4** looks forward to the 2023-2024 crop year. It reviews the expectations of our customers for the size of the upcoming grain crop, and CPKC's plans to supply the rail capacity required to transport the crop throughout the duration of the crop year.

**Part 5** highlights factors that negatively impact Canada's grain supply chain capacity and reliability.

**Part 6** reviews CPKC's industry-leading deployment of technology and innovation.

**Part 7** outlines CPKC's commitment to sustainability.

Consistent with past years, this report demonstrates that CPKC is in a strong position to once again supply the capacity needed to move Canada's grain crop to market throughout the 2023-2024 crop year.







## Part 1: Canadian Pacific Kansas City

Recognizing the public interest of a combined CP-KCS, the STB issued a final decision approving the transaction on March 15, 2023. In its decision, the STB found that the combination will stimulate new competition, create jobs, lead to new investment, and drive economic growth. The STB also recognized the safety and sustainability value of the transaction:

*"The Board expects that this new single-line service will foster the growth of rail traffic, shifting approximately 64,000 truckloads annually from North America's roads to rail, and will support investment in infrastructure, service quality, and safety. Indeed, approval of this transaction may even enhance safety...thus, any rail traffic diverted to CPKC from other railroads will likely mean traffic moving to a railroad with a better safety record."<sup>1</sup>*

April 14, 2023, marked an historic day in our 142-year history as CP and KCS officially combined to create CPKC, the first and only seamless Class 1 rail network connecting Canada, the U.S., and Mexico. This unrivaled new rail network is the most relevant in North America, generating significant new opportunities for Canada's grain to reach markets in the U.S. Gulf and deep into the heart of Mexico.

The combined CPKC network creates new competition and new capacity in the North American rail industry, expanding options for shippers by connecting agriculture products with new ports and new markets. CPKC opens new long-haul routes for Canadian grain shippers and unrivaled access to major ports across North America. These new single-line routes allow the efficient flow of agricultural products from the legacy CP network's origin-rich franchise to the legacy KCS network's destination-rich franchise, generating new optionality for shippers and receivers. CPKC's single-carrier routes support increased trade flows, economic growth and enhanced competition for shippers, while lowering GHG emissions across the continent.

**"Shipping of grain, automotive parts and vehicles, and intermodal goods will improve with new single-line options, and shippers will have opportunities to expand their market reach."**

*– STB Approval Decision, March 15, 2023*

For Canadian shippers, markets that would traditionally be accessible only by a train and vessel combination now have a viable rail-only option to the same end destination. In 2022, Canada exported 1.47 MMT of grain to Mexico via vessel. This grain now has a single-line rail option to end market, which offers shippers an attractive primary transportation choice, and greater confidence that there is an alternative option for their product to reach destination in case of supply chain disruptions. Diversification adds greater supply chain resiliency.

**"...it will eliminate the need for the two now-separate CP and KCS systems to interchange traffic moving from one system to the other. This will enhance efficiency, which in turn will enable the new CPKC system to better compete for traffic with other large Class 1 carriers."**

*– STB Approval Decision, March 15, 2023*

CPKC also delivers increased single-line access into U.S. domestic markets. With line of sight to emerging renewable diesel markets and the anticipated demand for inputs to outstrip domestic supply, CPKC offers an efficient and competitive solution for Canada's expanding crush plants. Approximately 6.8 MMT of new canola crush capacity has been announced in Western Canada. With access to over 16 MMT of current and future canola crush products across Western Canada, and canola and soybean crush plants in the U.S. and Eastern Canada, CPKC offers a geographic advantage in sourcing feedstock oils for the production of Next Generation Fuels.

Already a sustainability leader in the transportation industry, CPKC is the perfect partner to support the transition to low-carbon clean fuels and assist our customers in meeting Canadian targets to reduce GHG emissions to net zero by 2050.

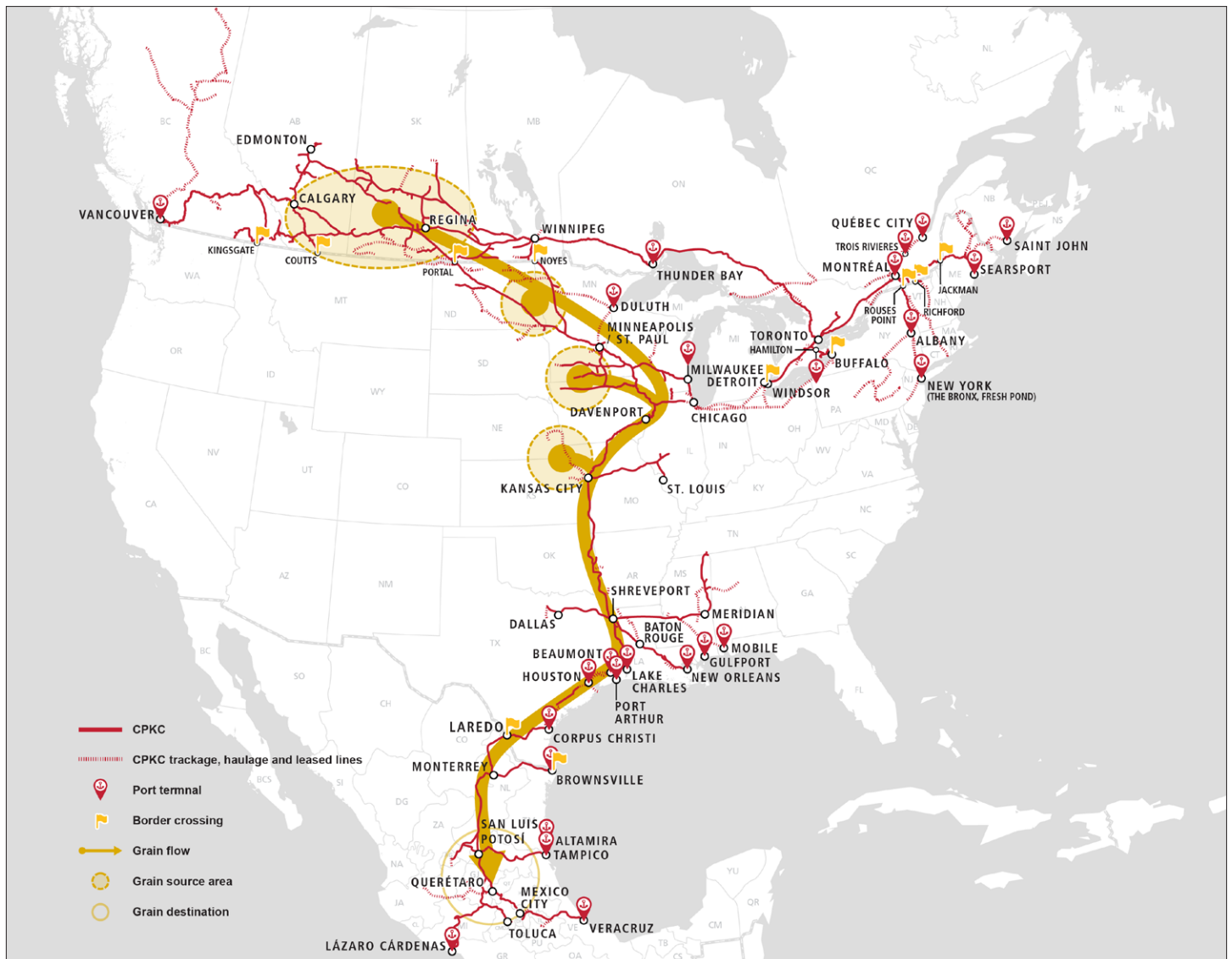
<sup>1</sup>STB Approval Decision Docket No. FD 36500, "STB Approves CP/KCS Merger With Conditions and Extended Oversight Period," March 15, 2023.

**“Growth in rail traffic resulting from the merger will be safer, more efficient, and will have fewer emissions than the truckloads that it will remove from North American roads.”**

– STB Approval Decision, March 15, 2023

CPKC is also driving significant environmental benefits across North America. We anticipate the combined network will avoid more than 1.9 million tons of GHG emissions over the next five years through improved operational efficiency and the diversion of more than 64,000 trucks to rail.

FIGURE 1: CPKC GRAIN NETWORK



## Part 2: Enhancing safety and capacity

### Industry-leading safety performance

At CPKC, safety is foundational to everything that we do. In 2022, the legacy CP network again led the North American rail industry in safety, achieving the lowest train accident frequency among all Class 1 railroads for the 17th consecutive year, as measured by the U.S. Federal Railroad Administration's ("FRA") reportable train accident frequency. The legacy CP network's train accident frequency is 69 percent lower than the Class 1 industry average, a gap that has widened considerably over the past decade since CP adopted the Precision Scheduled Railroading ("PSR") operating model. We also achieved the second-best year ever for personal injury performance in 2022, which marked a 40 percent improvement since 2016, as measured by the FRA's personal injury rate statistics.

Safety is a journey, not a destination, so we continually and relentlessly explore new ways of improving safety. We focus on several important initiatives, including CPKC's Home Safe program, which is aimed at fostering a strong safety culture across the company. Home Safe is an initiative designed to improve our safety culture by tapping into the human side of safety and promoting both safety engagement and feedback. CPKC has modified training for new employees to enhance the safety focus with longer instructional duration and innovative presentation methods, including simulation and video conference. CPKC is also continuing to expand the implementation of technology and the use of data and analytics to detect and predict track and equipment failure.



FIGURE 2: FRA-REPORTABLE TRAIN ACCIDENT FREQUENCY RATE, (PER MILLION TRAIN MILES)

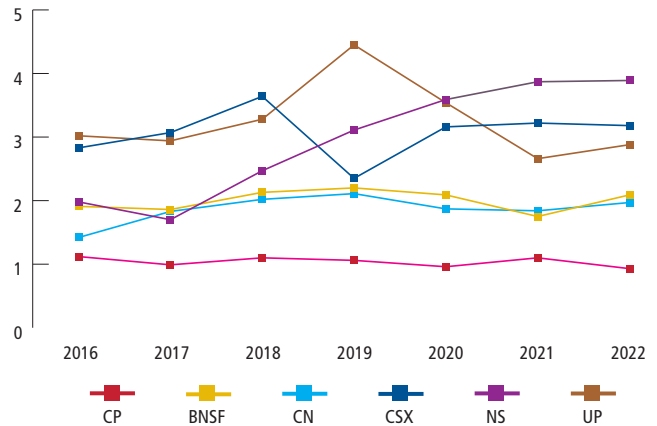


FIGURE 3: CP VS. CLASS 1 AVERAGE FRA TRAIN ACCIDENT FREQUENCY (PER MILLION TRAIN MILES)

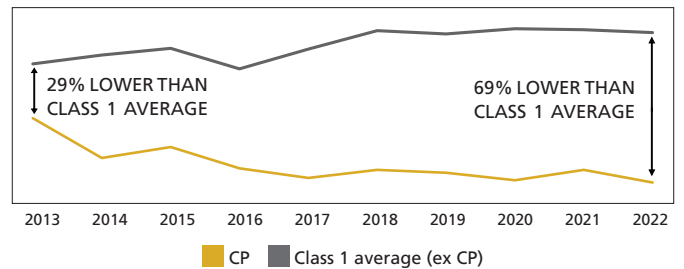
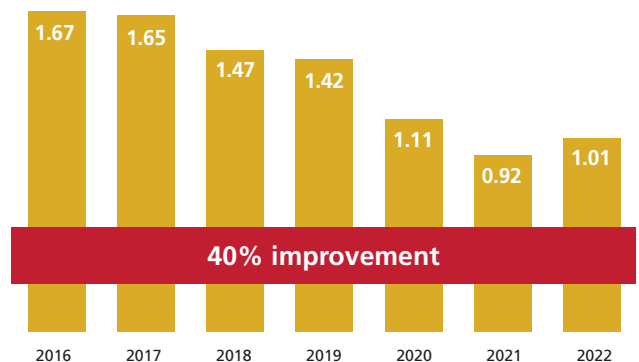


FIGURE 4: FRA PERSONAL INJURY FREQUENCY (PER 200,000 EMPLOYEE-HOURS)



## Building capacity in Canada's grain supply chain

CPKC is strongly committed to Canada's agriculture sector. We are investing in the assets and crews required to supply the rail capacity to meet the demand of our grain customers throughout the duration of the crop year. In 2022, we executed one of the largest hiring plans and capital investment programs in our company's history.



## Record hiring

Across the combined CPKC network, we currently have nearly 21,000 employees, with approximately 10,600 in Canada. In 2022, we hired more than 3,800 new employees across the CP and KCS networks, which operated as separate, independent companies until April 14, 2023. Throughout the CPKC network, the number of locomotive engineers and conductors increased by more than 800 between June 2022 and June 2023, including approximately 550 in Canada. We achieved a record hiring program in 2022 in spite of extremely tight labour markets in many key locations on the network.

FIGURE 5: CONDUCTORS & ENGINEERS – CPKC TOTAL HEADCOUNT

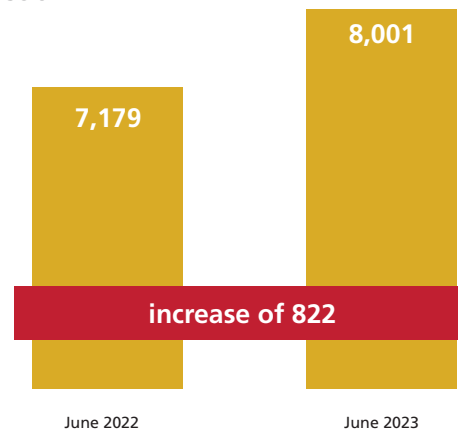
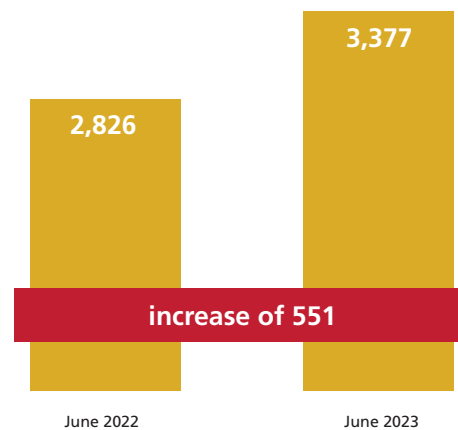


FIGURE 6: CONDUCTORS & ENGINEERS – CANADA HEADCOUNT

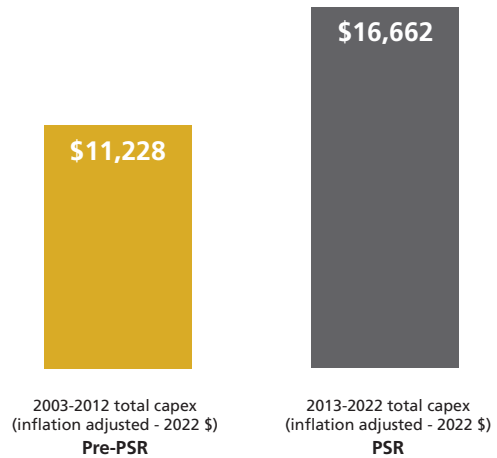


## Capital investment

We invested nearly \$1.6 billion in 2022 to enhance the safety, fluidity, capacity and resiliency of the legacy CP rail network. CPKC is maintaining strong levels of capital investment in 2023. On June 28, 2023, CPKC released updated guidance targeting capital expenditures of approximately \$2.6 billion to \$2.8 billion per year across the combined network for the 2024-2028 period.

Counting only the legacy CP network, our capital investments have increased significantly since 2013, after CP began adopting PSR. As illustrated in Figure 7, capital investment over the past decade is approximately 50 percent higher, in 2022 dollars, than it was in the decade prior, before CP adopted the PSR operating model. The discipline of PSR enables investment to expand capacity, enhance resiliency, increase efficiency and improve safety performance, all of which generates significant benefits for our customers and the competitiveness of Canada's economy.

FIGURE 7: CP CAPITAL INVESTMENT, PRE-PSR VS. PSR (IN MILLIONS CDN\$)



## Grain hopper car investment

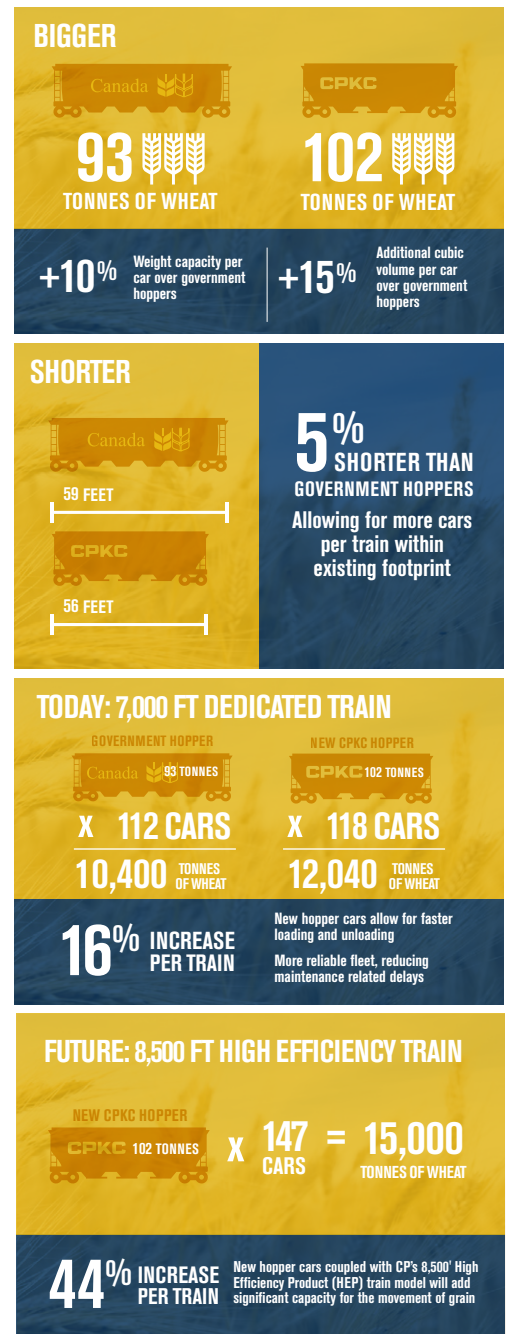
CPKC has completed its more than \$500 million investment to purchase 5,900 new higher-capacity grain hopper cars, which were built in Hamilton, Ontario. We have also leased an additional 1,490 cars. When combined with our 8,500-foot High Efficiency Product ("HEP") train model, these modern higher-capacity hopper cars are delivering more than 44 percent more volume capacity in each grain unit train.

The new hopper cars are shorter, wider and lighter, so they can carry more grain than the legacy Government of Canada hoppers. The new hoppers feature a three-pocket design that can be loaded and unloaded more efficiently. These cars handle more than 15 percent greater volume and 10 percent greater load weight than traditional cars, while featuring a shorter frame that enables more cars to be used on a train of the same length. The hoppers feature newly manufactured components that are more reliable, significantly reducing maintenance delays.

Through our acquisition of, and combination with, KCS, we have added 4,537 high-capacity grain hopper cars to the combined CPKC fleet. In total, CPKC now operates approximately 18,000 modern hopper cars, delivering significant capacity gains for Canada's grain supply chain.



FIGURE 8: BENEFITS OF CPKC'S HOPPER CAR INVESTMENT



## High Efficiency Product train model

To effectively compete and grow, the Canadian grain supply chain must continually generate new efficiencies and drive innovation. CPKC is answering that call with our 8,500-foot HEP train model, which uses up to 147 new higher-capacity grain hopper cars. In collaboration with our customers, the 8,500-foot HEP train model is changing the Canadian grain landscape.

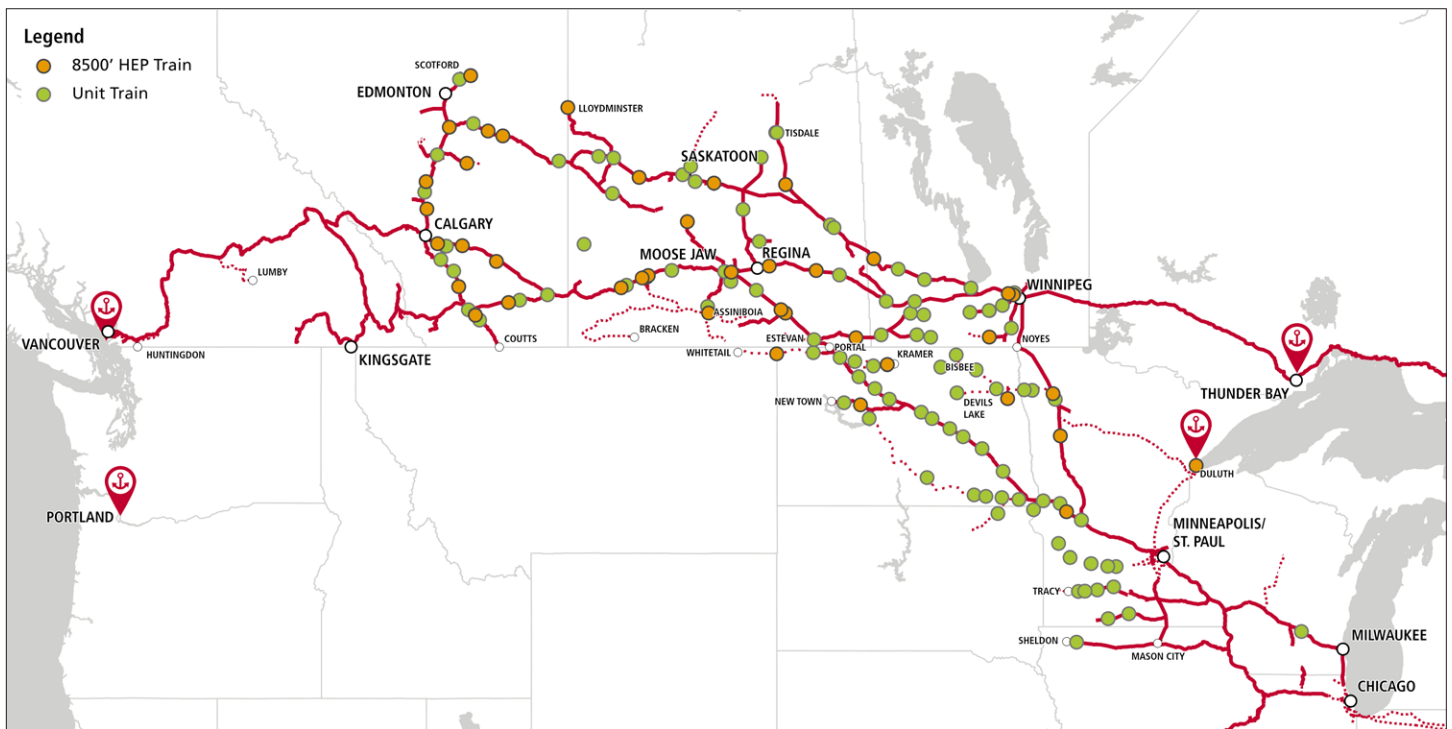
Origin high-throughput (“HTP”) elevators earn economic incentives to load 8,500-foot trains clear of the main line track in 16 hours or less, which is an extremely efficient model. The train’s composition remains intact with both the locomotive and hopper cars throughout the loading process. The customer uses CPKC’s locomotives to move the train through the track to facilitate the loading of hoppers with grain. Once the train is loaded, the CPKC crew pulls the train from the customer’s facility onto the main line track for transport to destinations across North America. All new greenfield 8,500-foot-capable HTP elevators built on CPKC’s network will incorporate a loop track design, and the 8500’ HEP-qualified ladder-track style elevators incorporate a long lead capable of handling an 8500’ train.

There are many efficiency benefits to using this new model, including reduced loaded dwell time, since the locomotive remains with the hopper cars, and increased reliability, as locomotives maintain train air brake pressure during the loading process. In turn, this expands elevator capacity, allowing grain companies to buy more grain from producers. This also enhances the resiliency of the supply chain. A Panamax vessel is filled by four 8,500-foot HEP trains compared to six with the historical train model.

The 39 HEP elevators in Canada account for approximately 40 percent of our unit train elevator network and they ship approximately 55 percent of CPKC customer grain. We are working with our customers to upgrade the balance of the existing network infrastructure to the 8,500-foot HEP model, and to add new 8,500-foot-capable loop track elevators at strategic locations.

CPKC looks forward to the continued expansion of capacity throughout the grain supply chain. Through strong collaboration with customers, CPKC is creating significant new capacity and driving strong efficiencies in the grain supply chain.

FIGURE 9: CPKC’S GRAIN ELEVATOR NETWORK





## Part 3: 2022-2023 grain supply chain performance

### Size of the grain crop

Following the drought crop in 2021-2022, Statistics Canada estimated the size of the 2022-2023 Western Canadian grain crop at 71 MMT. Wheat production increased by 62.5 percent and canola production increased by 32.1 percent relative to the previous year.



### Grain performance

In our 2022-2023 Grain Service Outlook Report, we indicated that the railway would have the capacity required to move more than 30 MMT of Canada's grain and grain products for export during the crop year. Although we resourced the railway to meet that capacity commitment, demand for Canadian grain and grain product transportation was well below the capacity that CPKC had available throughout much of the crop year.

Up to and including Week 48 (June 25 - July 1), CPKC has moved 24.9 MMT of Canadian grain and grain products during the 2022-2023 crop year. Since Week 36 (April 2-8), customer demand for grain transportation has been soft, well below customer forecasts and the capacity resourced on the rail network. Depending on customer demand for the balance of the crop year, we expect to finish the crop year having transported between 25 MMT and 26 MMT of grain and grain products.

Demand was extremely low during the first six weeks of the crop year in August and early September. In fact, this period saw the lowest grain volumes in more than ten years. Our grain customers were forecasting a late harvest, with demand for grain transportation increasing mid-to-late September. On the basis of these customer forecasts, CPKC planned for

the fall harvest demand surge to begin in the second half of September. Instead, the harvest suddenly came early with a surge in demand in the first half of September.

In spite of the demand forecast miscalculation by the grain industry, and given the fact that the grain industry was moving historically low volumes pre-harvest, CPKC executed an exceptionally strong ramp up of grain volumes on the system, matching record volumes and port unload levels over the last three weeks of September (Weeks 7-9). This rapid increase in grain transportation on the CPKC network was remarkable given such low demand just one month earlier.

Demand remained strong throughout the fall and winter months. CPKC met the supply targets outlined in our 2022-2023 Grain Service Outlook Report, and set many records for grain transportation:

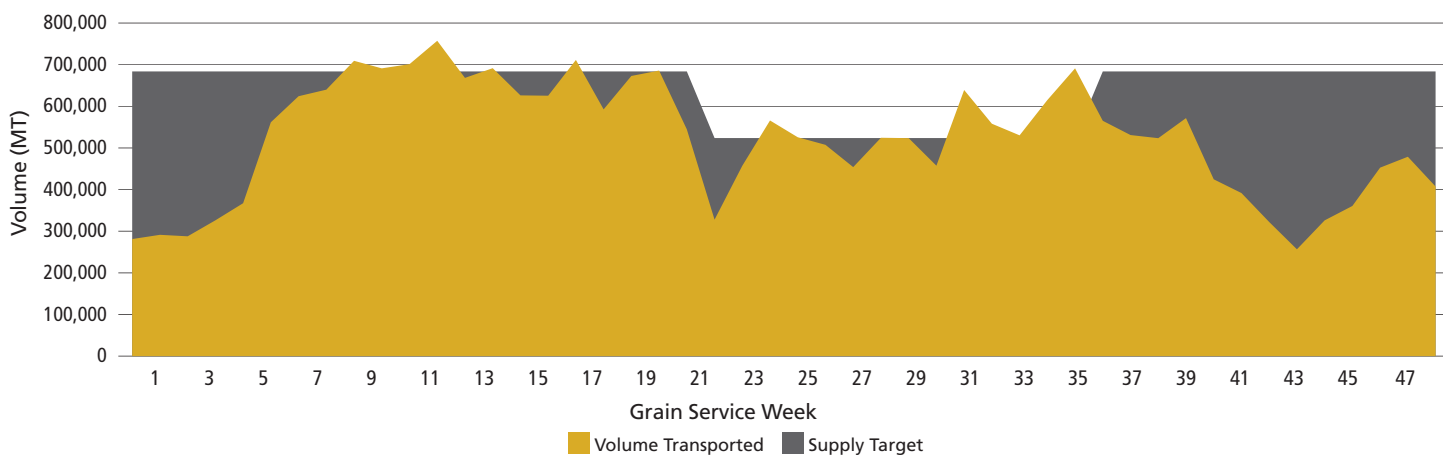
- October was an all-time monthly record with 3.14 MMT of Canadian grain and grain products transported.
- January was an all-time record for the month with 2.29 MMT of Canadian grain and grain products transported.
- Weekly records were achieved for Grain Service Weeks 19, 24, 28 and 29.





Beginning in early April, market demand for Canadian grain transportation fell dramatically. Demand from April to June remained significantly below the capacity that CPKC had resourced on the rail network for Canadian grain transportation, which was based on customer forecasting. We understand from our grain customers that demand was low because Canadian farmers were choosing to hold on to their harvested crop rather than sell at market prices. The global supply of grain was high due to large crops in both Australia and South America, which put downward pressure on market prices. It would appear that Canadian farmers were seeking a higher price than what was available in the market for their products.

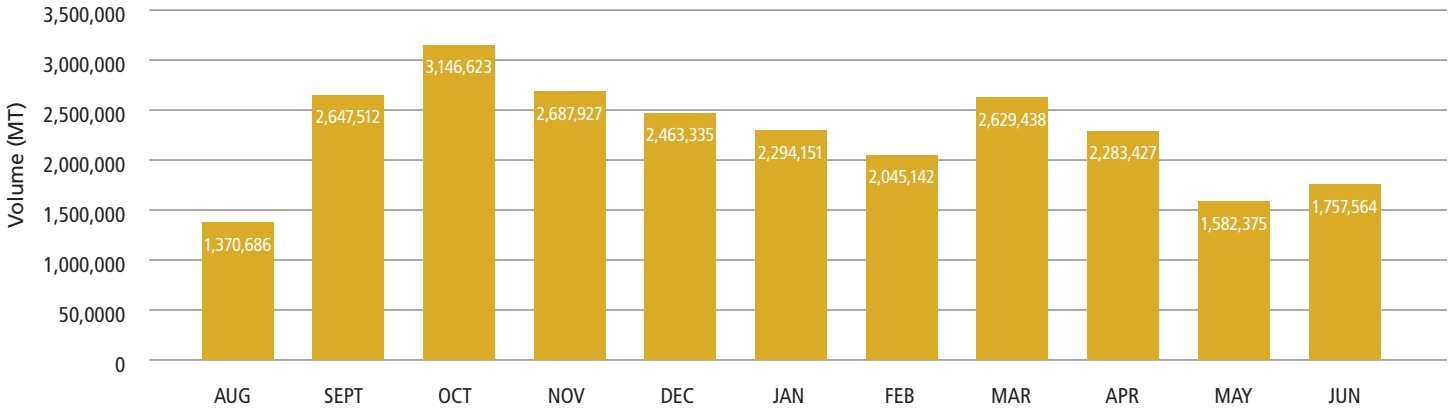
FIGURE 10: CPKC GRAIN & GRAIN PRODUCTS TRANSPORTED VERSUS SUPPLY TARGET (2022-2023)



2022-2023 Weekly Records			
Week #	Tonnage (MT)	Previous Record Month/Year	Previous Record Tonnage (MT)
Week 11 (Oct 9 - Oct 15)	701,320	Week 11 of 2020-2021	683,533
Week 12 (Oct 16 - Oct 22)	757,406	Week 12 of 2020-2021	672,142
Week 19 (Dec 4 - Dec 10)	672,953	Week 19 of 2015-2016	657,220
Week 24 (Jan 8 - Jan 14)	566,019	Week 24 of 2020-2021	548,750
Week 28 (Feb 5 - Feb 11)	524,506	Week 28 of 2019-2020	501,711
Week 29 (Feb 12 - Feb 18)	523,635	Week 29 of 2017-2018	458,045
Week 31 (Feb 26 - Mar 4)	639,234	Week 31 of 2020-2021	553,385
Week 35 (Mar 26 - Apr 1)	691,204	Week 35 of 2020-2021	666,401



FIGURE 11: GRAIN & GRAIN PRODUCTS VOLUME BY MONTH (2022-2023)



2022-2023 Monthly Records			
Month/Year	Tonnage (MT)	Previous Record Month/Year	Previous Record Tonnage (MT)
October, 2022	3,146,623	October, 2020	3,036,787
January, 2023	2,294,151	January, 2021	2,221,291



## Unused capacity

Low demand for Canadian grain transportation at certain times during the 2022-2023 crop year, and in particular throughout the spring period, resulted in significant unused capacity on CPKC's rail network.<sup>2</sup> As illustrated in Figure 12, throughout the 2022-2023 crop year, grain customers did not use more than 5.4 MMT of available capacity for grain transportation on CPKC's network. This low demand undermines Canada's ability to maximize the export of grain to global markets.

FIGURE 12: GRAIN & GRAIN PRODUCTS VOLUME TRANSPORTED VS UNUSED CAPACITY (2022-2023)

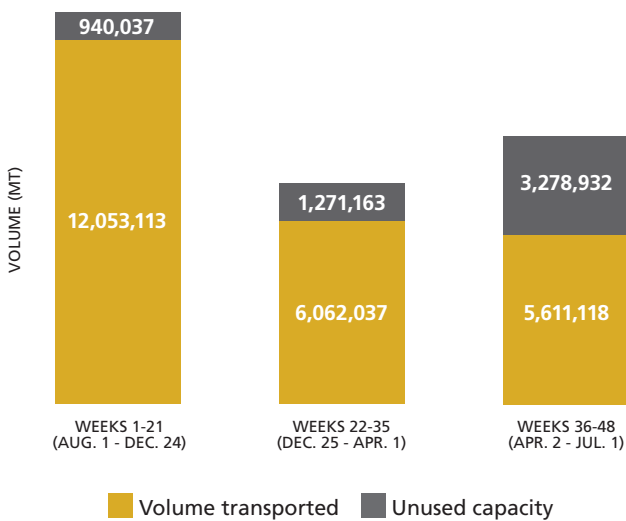


FIGURE 13: WEEKS 1 - 21 (AUGUST 1 - DECEMBER 24)

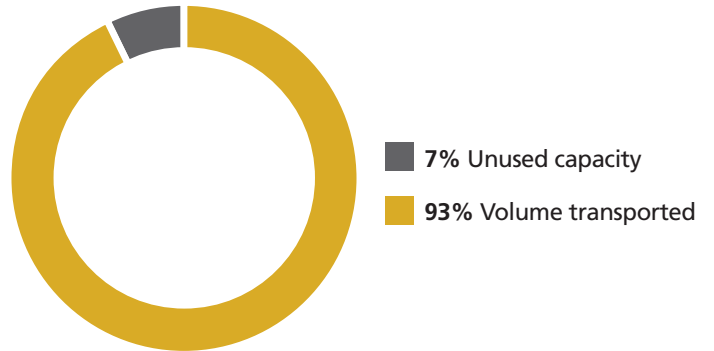


FIGURE 14: WEEKS 22-35 (DECEMBER 25 - APRIL 1)

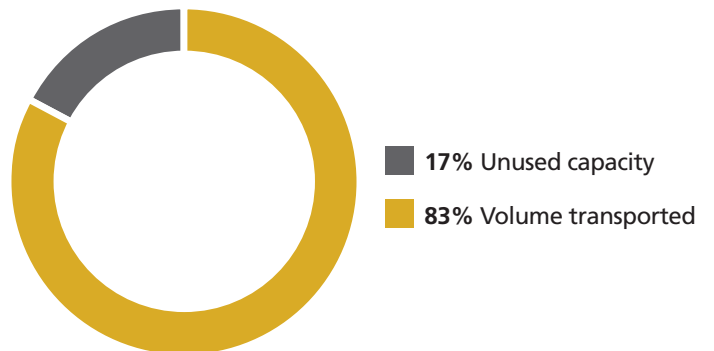
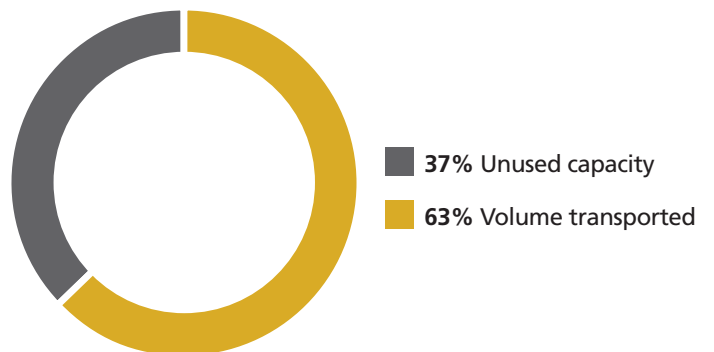


FIGURE 15: WEEKS 36 - 48 (APRIL 2 - JULY 1)



<sup>2</sup> Unused capacity is defined as "weekly tonnage supply target" minus "total volume transported."

## Grain customer demand variability

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Maximizing Canada's grain exports requires customers to use the available supply chain capacity throughout the entirety of the crop year. The supply chain simply cannot move all the grain at once if farmers hold off selling their products, waiting for a specific market price. The only way to maximize supply chain throughput is to have continuous, efficient and balanced movements from in-country grain elevators to port terminal facilities throughout the duration of the crop year.

Significant demand variability and uncertainty creates challenges that undermine supply chain throughput and capacity. Demand variability is inconsistent with maximizing volume throughput. The capacity that CPKC has created on the rail network is a tangible asset that is lost when unused. Once lost, that capacity cannot be recovered.

CPKC believes strongly in the market. Our grain customers and Canadian farmers are all players in the marketplace, as is CPKC. They rightly make their own business decisions regarding when, where and how to ship their products, based on their own market dynamics and considerations. We respect that. However, farmers and grain customers need to make fully informed decisions; they cannot assume that they can move all their grain through the supply chain in a short, price maximizing time window.

## Operational performance data reporting

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CPKC publicly reports performance data on a weekly basis, including revenue-ton-miles and carloads by line-of-business, average train speed and average terminal dwell. These metrics are available at [cpkcr.com](https://www.cpkcr.com). CPKC also reports a wide range of weekly performance data to Transport Canada and to the U.S. Surface Transportation Board. The data can be used to monitor current service conditions in the rail industry.



## Canadian grain and grain products cycle times

A key measure of the performance of Canada’s grain supply chain is the cycle time between Western Canadian origins and the Ports of Vancouver and Thunder Bay for trains operating under the Canadian Dedicated Train (“DT”) program.

The railway’s performance is only one component of the overall cycle time measurement. Cycle times are a complete supply chain cycle measurement, which includes:

- the time it takes the customer to load the train at the inland terminal;
- the railway transit time from the origin to the port export terminal;
- the time it takes to unload the grain at the export terminal; and
- the railway transit time for the empty DT to return to an inland terminal to be re-filled with grain.

Figure 16 illustrates the system average cycle times for grain and grain products transported using CPKC’s Canadian DT program from Western Canadian origins over the past five crop years. Over this time period, the train cycle time has improved by 7 percent.

FIGURE 16: SYSTEM WIDE CYCLE TIMES (IN DAYS) – CANADIAN GRAIN & GRAIN PRODUCTS

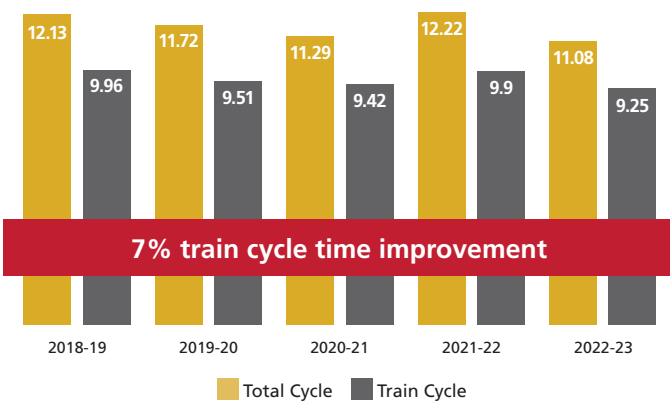


Figure 17 illustrates the cycle times for grain and grain products transported using CPKC’s Canadian DT program from Western Canadian origins to the Port of Vancouver’s South Shore over the past five crop years. Grain terminals located on the South Shore of Vancouver are directly served by CPKC. Over this time period, the train cycle time has improved by 18 percent.

FIGURE 17: VANCOUVER – SOUTH SHORE CYCLE TIMES (IN DAYS) – CANADIAN GRAIN & GRAIN PRODUCTS

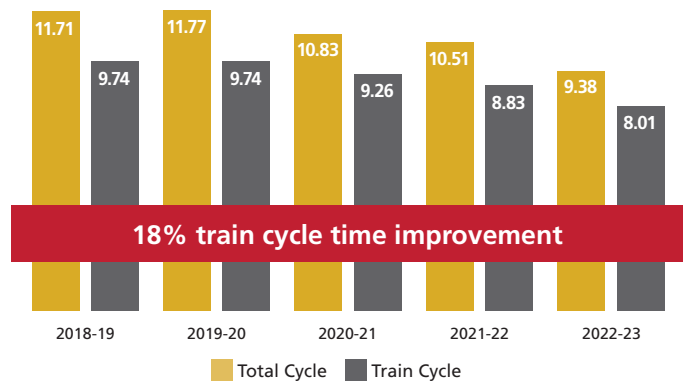
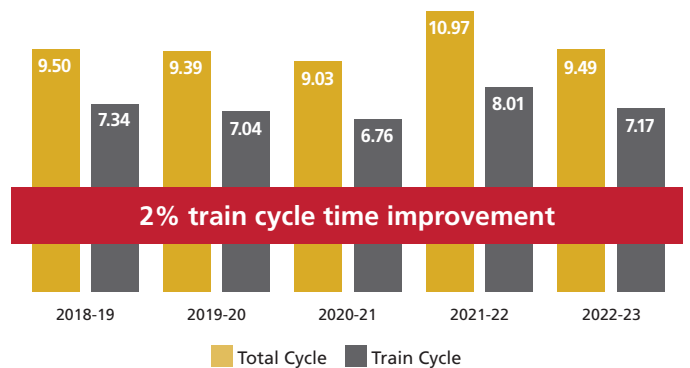


Figure 18 illustrates the cycle times for grain and grain products transported using CPKC’s Canadian DT program from Western Canadian origins to the Port of Thunder Bay over the past five crop years. Over this time period, the train cycle time has improved by 2 percent.

FIGURE 18: THUNDER BAY CYCLE TIMES (IN DAYS) – CANADIAN GRAIN & GRAIN PRODUCTS



## Railway service performance metrics

There have been calls from some shipper lobby associations for railways to publish service performance metrics. The service a railway provides is always unique for each individual customer, depending on the customer's particular transportation needs, traffic forecasts and volume commitments, and their desired rate. The customer's own management and control of their supply chain and operational performance also affects their rail service. For example, if a customer is not unloading cars at destination (such as during periods of rain or snow in Vancouver, which interrupts vessel loading, or if a terminal is not staffed 24/7), they will be constrained with car supply at origin.

There is no one set standard of service. Pursuant to the common carrier obligation under the *Canada Transportation Act*, a railway is required to supply an adequate and suitable accommodation of a shipper's traffic, but each customer's service requirement is fundamentally different and a railway's service offering is particular to that customer.

The level of service that the railway plans to supply a customer will typically be negotiated commercially and defined in a confidential contract that outlines the commitments of both parties and the consequences in the event of non-performance. This is how both parties are held accountable for their commitments. In general, where a customer can provide the railway with a volume forecast or commitment, the railway is in a better position to offer a more specific service commitment because it will be able to plan the resources (i.e., operating crews, which take time to hire and train, and locomotive power) required to provide that level of service on the railway network. Without commitments from the customer, the railway does not have the ability to plan for, and dedicate resources to, servicing

that particular customer. With a specific volume commitment from a customer, the railway can and does supply the resources required to provide a level of service that is commensurate with the customer's commitment.

In the grain context, more than 85 percent of Canadian grain and grain products that CPKC transports is through the Canadian DT program, which has been in place since the 2014-2015 crop year.

Under the Canadian DT program, CPKC's grain customers choose the origins and destinations for their shipments and the number of grain unit trains they require to fulfill their shipping needs. The customer will choose and direct where trains are to be loaded at origin and the order and frequency of train placements. In other words, the grain company will determine which origins on CPKC's network it wants served and in what order. The grain company will make these determinations based on the volume, type and location of grain it has purchased from the farmer; the total amount of transportation capacity it has purchased from CPKC; and the type of grain required for a particular vessel expected at port.

The strength of the Canadian DT program is that it is reciprocal: it commits CPKC to provide capacity to a customer, and, in return, the customer commits to use that capacity. If CPKC fails to provide the agreed capacity to a customer or the customer fails to use the allocated capacity, there are reciprocal penalties.

Customers that choose not to participate in the DT program can order hopper cars through the open distribution program, which allows customers to request railcars from CPKC with two weeks' notice.

## Elevator of the Year award

Paterson Flagstaff and G3 Carmangay are the winners of CP's 2022 Canadian Elevator of the Year award.

CP recognized these elevators for achieving high volumes from a single loading point, while consistently demonstrating a strong commitment to safety during the 2021-2022 crop year.

CPKC will announce the Elevator of the Year Award for the 2022-2023 crop year in fall 2023.



## Part 4: Looking forward to grain service excellence in 2023-2024

### Forecasting the crop size

At the beginning of the crop year, it is challenging to obtain an accurate forecast for the size of the upcoming crop. This timing challenge is amplified when the harvest occurs later in the fall. When forecasting the crop size, CPKC works with grain customers to obtain a firm understanding of their specific forecasts and expectations for the upcoming crop year. Precise customer forecasts are critical to CPKC's resource planning. In an effort to refine and validate customer forecasts, we review the five-year historical averages and the latest Statistics Canada predictions on production and carry-in volume for the upcoming crop year.

Agriculture and Agri-Food Canada's latest projection for the size of the upcoming crop is 95.7 MMT across Canada. This projection is based on Statistics Canada seeding reports and an assumption of a return to average yields. This crop size translates into approximately 73 MMT for the Western Canadian crop, which is down slightly year-over-year but is expected to be offset by increased carry-out from the current crop year, which is anticipated to be approximately 10.7 MMT. Grain customers are currently estimating Western Canadian crop yields in the range of 60 to 70 MMT

### Capacity supply targets for the 2023-2024 crop year

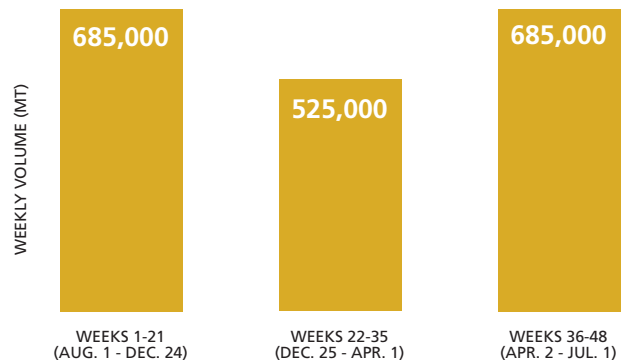
CPKC is well-positioned to move Canada's grain crop throughout the upcoming 2023-2024 crop year. Based on current customer forecasts, and subject to market demand, CPKC is planning to supply the capacity required to move 685,000 MT of grain and grain products each week during Grain Service Weeks 1-21 (August 1 to December 23) and Grain Service Weeks 36-53 (March 31 to July 31), when the Port of Thunder Bay is expected to be open. CPKC is planning to supply the capacity required to move 525,000 MT of grain and grain products during the winter period through Grain Service Weeks 22-35 (December 24 to March 30) when the Port of Thunder Bay is closed, subject to market demand.

The Port of Thunder Bay is a major outlet for Canadian export grain moving by vessel on the St. Lawrence Seaway. Winter weather typically forces the Port of Thunder Bay and the seaway to close from late-December to March.

Given these weekly supply targets, CPKC expects to supply the capacity to move more than 33 MMT of Canadian grain and grain products during the 2023-2024 crop year, subject to market demand.

CPKC's operational plan and supply targets are calibrated to the available capacity throughout the entire supply chain. This includes the capacity available at in-country elevators and port terminals and other facilities (i.e., canola crush and container stuffing facilities). The operational plan assumes that the entire supply chain, including the critical portion through Vancouver, will run at or near capacity throughout the entirety of the crop year.

FIGURE 19: CPKC 2023-2024 CROP YEAR SUPPLY TARGETS FOR CANADIAN GRAIN AND GRAIN PRODUCTS TRANSPORTATION



The most accurate and meaningful supply metric is volume (which is measured by the Canadian grain industry in MT), rather than carloads, because the volume and weight transported in each car has increased significantly over the last decade with the new high-capacity cars coming into service. As of March 2023, a CPKC hopper car carries on average 97.6 MT compared to 93.2 MT in 2018, the year we started the acquisition of new high-capacity hopper cars. This represents a capacity increase of more than 4 MT, or nearly 5 percent, per car.

Weekly Empty Order Fulfillment carload data reported by many agricultural political associations does not take into account supply chain interruptions, delays and shipments into longer-cycle pipelines and destinations that affect the number of cars available to load each week. It also does not account for the performance of the customer loading at origin and unloading at destination terminals.





## Port of Vancouver terminal operators strikes

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On July 1, 2023, members of the ILWU commenced a strike at port terminals across British Columbia, including at the Port of Vancouver, Canada's largest port and the second largest port on the west coast of North America. The Port of Vancouver is a critical gateway on the CPKC rail network. The supply chains and international trade corridors that run through Vancouver are depended upon by Canadians every day, but the government permitted them to be disrupted for 13 days, resulting in a loss of perishable capacity each day. A tentative agreement was reached between the ILWU and the British Columbia Maritime Employers Association on July 13, 2023. Port operations resumed and supply chain recovery began. Then, on July 18, 2023, the ILWU leadership suddenly rejected the tentative agreement without putting it to its membership for a ratification vote. Their members commenced a second strike at port terminals.

The repeated start up and shut down of port operations, combined with each additional strike day, has a damaging and compounding impact on the timeline for supply chain recovery, which is expected to stretch into 2024. Although grain terminals continued operating as an exempted service under the *Canada Labour Code*, it will take months for supply chains to catch up on all the traffic that did not move through Vancouver during the strikes. Recovery on the rail network must be balanced and ratable across all commodities to avoid congestion swells. Congestion caused by one commodity ultimately harms all commodities because it impacts overall system throughput. CPKC is properly resourced for handling the fall grain demand, but no supply chain can recover quickly from a prolonged strike at Canada's largest port.

## Customer and industry collaboration and communication

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CPKC is committed to strong customer communications and responsiveness. Our grain Sales and Marketing team is in regular contact with customers to gather insight about their business and determine how we can meet their transportation needs. CPKC also meets with agriculture industry organizations and participates at industry events across Canada, often through presentations and sponsorships.

CPKC is focused on delivering world-class service and results to our customers. We use multiple tools to facilitate direct communications and provide access to up-to-date shipment and network information.

**Customer Station:** A web-based self-service option for shipment tracking and information, pipeline visibility, equipment status, bulletins and customer alerts.

**Customer Service:** Customers can reach CPKC representatives at our Network Service Centre day or night via toll-free telephone (1-888-333-8111), email or online messaging (log an issue feature).

**Specialized Teams:** CPKC's specialized service teams assist our customers with a full range of matters, including asset management, customs reporting and waybills.

**Customer Advisory Council:** Provides important feedback on a range of customer service initiatives to enhance service and supply chain integration.

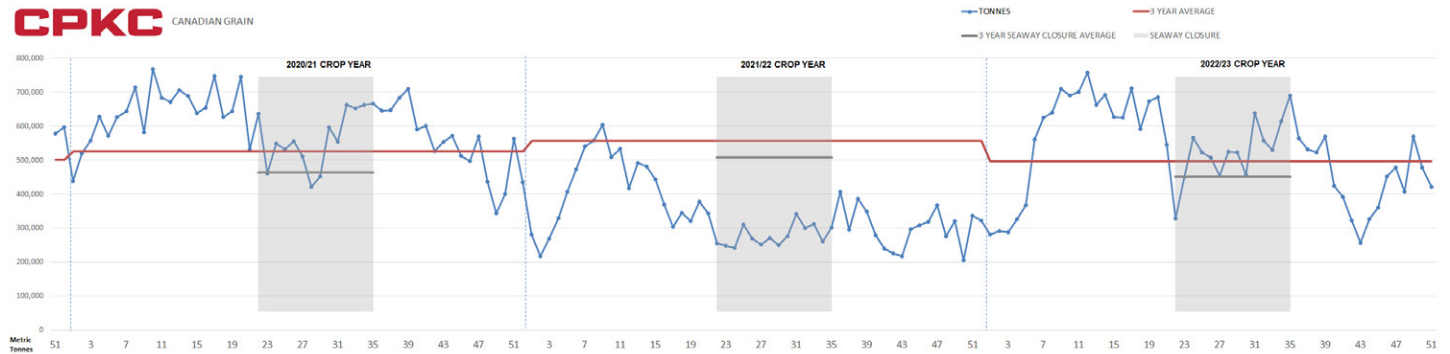
**Carbon Emissions Calculator:** This innovative web-based tool is designed to give customers greater insight into the carbon footprint of CPKC's transportation services by allowing users to estimate the potential GHG emissions reductions they may achieve using CPKC's rail services compared to long-haul trucking alternatives.

This is an updated version of our previous calculator that now incorporates customer-specific shipping details to calculate routes across CPKC's North American rail network and commodity-specific GHG emissions. The calculator also provides information on highway safety and other public benefits of shipping with CPKC's freight rail services.

## CPKC's Grain Performance Scorecard

CPKC publishes a weekly grain supply chain scorecard on its website at [cpkcr.com](http://cpkcr.com). The scorecard outlines CPKC's performance for the previous week and critical information on any internal or external factors affecting grain transportation.

FIGURE 20: CPKC'S SUPPLY CHAIN SCORECARD



## Part 5: Factors negatively impacting Canada's grain supply chain capacity and throughput

There are many factors that can negatively impact the capacity of Canada's grain supply chain to export grain. Some are unavoidable, such as the harsh Canadian winter, but others are choices made by Canadian industry and government regulators.

### Winter operations

Severe winter weather conditions require adjustments to railroad operations to maintain safety, which must always be the first priority. When temperatures drop below negative 25 degrees Celsius, a train's speed, length and weight must be reduced. These necessary operational changes unavoidably lower overall system velocity, which reduces the supply chain's shipping capacity. Similarly, winter storms that cause snowfall and ice require the deployment of significant assets and resources to keep track corridors and railway yards clear and safe. Given CPKC's network reach through the Rocky Mountains, the railway must also be vigilant to the threat posed by avalanches and must be prepared to respond if the rail network is impacted.

Since 1881, CPKC has been railroading in challenging winter conditions, including through the steep mountain ranges of Alberta and British Columbia. Although winter is unavoidable in Canada, the type and severity of conditions and their geographical scope vary dramatically from year to year. Consequently, it is imperative to plan for different winter weather scenarios across North America, including the potential for prolonged severe winter conditions that can affect railway operations across CPKC's network. Effective winter planning helps prepare the railway for winter

scenarios so that CPKC can serve the needs of its customers, and by extension the broader economy, even during harsh winter operating conditions.

Nevertheless, the impact of winter on a railway's performance can never be fully eliminated. No matter what action is taken, tough winter conditions will always force a reduction in train speed and length to ensure safety, which will constrain supply chain capacity, and negatively impact service. Proper planning is essential, but the laws of physics mean that a railway can never be fully insulated from the effects of winter.

Winter operating performance on the legacy CP network improved dramatically since adopting the PSR operating model more than a decade ago, while the company maintained its industry-leading safety performance. For instance, average train length in Winter 2022 was more than 19 percent longer than it was during all other seasons (non-winter) in 2013. Average train weight in Winter 2022 was nearly 25 percent higher than all other seasons (non-winter) in 2013. Average train speed in Winter 2022 was 14 percent higher than it was during all other seasons (non-winter) in 2013. These metrics demonstrate the creation of significant new capacity on the railway.

### Extended interswitching

The Government of Canada announced in its 2023 budget that it would resurrect the extended interswitching regime that it discontinued in 2017 and replaced with long-haul interswitching ("LHI") in 2018. The extended interswitching

regime was revived through the *Budget Implementation Act, 2023, No. 1*, adopted by Parliament in June 2023. This legislation expands the regulated interswitching distance from 30 km to 160 km in the three Prairie provinces on a temporary, pilot basis for a period of 18 months.

The return of extended interswitching will harm Canadian shippers by diverting Canadian jobs and investment dollars to U.S. rail carriers and undermining efficiency and capacity on Canada's rail networks. More inefficiency will harm Canadian consumers by driving up transportation costs for all users of the rail network. This will fuel inflation because so many goods and commodities move by rail.

**"Interswitching is inefficient... It wouldn't correct problems with the supply chain, it would amplify them."<sup>3</sup>**

– Mary-Jane Bennett, former member of the Canadian Transportation Agency (1998-2007)

<sup>3</sup> Bennett, Mary-Jane. "Opinion: How not to unspool rail supply chains: One recommendation from latest task force would make problems worse." *Financial Post*, March 8, 2023.

**“I’m concerned it’s going to have ripple effects... We’re not in favour of supply chain measures that benefit very few shippers yet can have very serious impact on the supply chain.”<sup>4</sup>**

– Murad Al-Katib, Chief Executive, AGT Food and Ingredients Inc.

**“The other one we allowed to lapse was extended interswitching, because after the assessment we did, we uncovered that it wasn’t heavily used, but it was having unintended consequences on the competitiveness of our railways vis-à-vis the U.S. railways.”<sup>5</sup>**

– Helena Borges, former Associate Deputy Minister, Transport Canada

Canadians have already seen the harmful consequences of extended interswitching when it was in place from 2014 to 2017. The last statutory review of the *Canada Transportation Act*, led by the Honourable David Emerson, concluded that extended interswitching should be sunset because of the market distortions it facilitated, especially with respect to allowing U.S. carriers to solicit Canadian traffic without the reciprocal ability for Canadian railways to do the same in the U.S. Transport Canada itself also recognized the harmful consequences of extended interswitching and developed LHI as an alternative so that shippers would have access to competing railways up to 1,200 km away, but without the damaging consequences of cost-based (and in some cases non-compensatory) regulated rates under extended interswitching.

Interswitching is inherently an inefficient practice that should be avoided to the extent possible. This regulation forces railways to bring rail traffic moving on its own network — whether individual cars or an entire train — over to a competitor’s network, with shippers paying a regulated non-market, cost-based rate that incentivizes inefficient behaviour. Encouraging additional and avoidable interchanges between rail carriers is poor public policy.

## Legislation to prohibit use of replacement workers

The federal government has committed to introduce legislation by the end of 2023 to prohibit the use of replacement workers during a strike or lockout. If implemented, such a policy will incentivize more frequent labour disruptions in the federally regulated transportation sector, undermining the reliability of Canada’s supply chains. This policy risks damaging Canada’s national economy and international reputation as a reliable trading partner. Freight transportation is vital to the supply chains that are integral to the day-to-day lives of Canadians.

A work stoppage of any duration or even the threat of a work stoppage at a major freight railroad or port causes significant harm to Canada’s supply chains. Without the ability to use replacement management workers, unions may be incentivized to engage in more frequent work stoppages


rather than negotiating in good faith to reach responsible and reasonable collective agreements.

Qualified replacement management workers are sometimes necessary to mitigate the negative impacts of work stoppages to Canadians, which is fundamentally in the public interest. For example, during past work stoppages at railways the government has raised concerns about the need to ensure delivery of corn from the U.S. to feed cattle in Alberta and Saskatchewan, transport propane from Alberta to Quebec hospitals, and maintain commuter train services operating on our network for thousands of Canadians in Montreal, Toronto and Vancouver.

Prohibiting the use of replacement management workers would directly contradict the government’s own stated policy

<sup>4</sup> Edmiston, Jake. “Why Canada’s two big railways are livid over Justin Trudeau’s attempt to force competition: What you need to know about the rock-em, sock-em slugfest playing out in the careful world of rail and government policy.” *Financial Post*, May 18, 2023.

<sup>5</sup> Parliament of Canada, House of Commons, Standing Committee on Transport, Infrastructure and Communities, Evidence, 42nd Parliament, 1st Session, No 67 (11 September 2017) at 1300.



objectives to improve the strength, resilience and reliability of Canada's supply chains. Prohibiting the use of replacement workers would achieve the exact opposite.

The recent strikes by the ILWU at Port of Vancouver terminals demonstrates, once again, the significant harm caused to Canadian supply chains from labour disruptions. The Government of Canada's willingness to allow these damaging strikes to repeatedly shut down operations for long periods of time at the country's largest port is inconsistent with the national interest and practices in other countries, including the U.S.

Should the Government proceed with its commitment to introduce this legislation, it should concurrently implement a statutory authority in the *Canada Labour Code* for either the Minister of Labour or federal cabinet to impose binding arbitration prior to any work stoppage if a negotiated agreement cannot be reached in sectors that are essential to Canada's supply chains, such as railways and ports.

## Loading grain in the rain in Vancouver

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A major opportunity for Canada to improve grain supply chain export capacity is to finally address the chronic and persistent problem of loading grain onto vessels during periods of rain or snow at grain export facilities at the Port of Vancouver. Vessels and grain export facilities in Vancouver rarely load grain when there is rain. This limits the throughput of the entire supply chain.

Unlike Vancouver facilities, other Canadian export terminals and U.S. Pacific Northwest ("PNW") terminals safely load grain onto vessels during periods of rain, avoiding capacity losses. The same vessels, with the same ship captains, load grain safely in the rain at PNW terminals, but not in Vancouver, despite similar climates and weather conditions. In fact, the same weather systems typically affect both locations concurrently. It rains regularly in both locations, especially during the winter months.

The frequent decision to suspend vessel loading due to inclement weather in Vancouver has reoccurring and profound cascading ripple effects through the entire supply chain. For example, in fall 2022, there were several weeks when the industry had grain unit trains staged and country grain elevators full across Canada. Those loaded grain trains were held back from Vancouver because grain terminals were full and unable to accept more grain until the rainy

An embedded statutory authority would allow the government to impose binding arbitration quickly to avoid economic harm to Canadians. The collective bargaining process would still be respected and preferred, as the best agreement is one that is negotiated between the parties. In the event a negotiated outcome is unachievable, the government should have the authority to step in and protect Canada's essential supply chains from avoidable disruption and harm by compelling binding arbitration without going through the lengthy process of "back-to-work" legislation. The authority would also enable swift intervention to protect critical supply chains in the event Parliament is not in session, which was the case with the recent strike at the Port of Vancouver. The *Canada Labour Code* already recognizes the loading and movement of grain vessels as an exempted function that must continue at Canada's ports during what would otherwise be a legally permissible strike or lockout. Providing the government with the legal authority to prevent a work stoppage at a railway that transports grain to a port is consistent with the *Canada Labour Code*.

weather cleared. This inevitably constrains the capacity and performance of the entire supply chain. Canada's grain supply chain and economy are suffering from this uniquely Western Canadian problem.

**Change is required in Vancouver for Canada's grain supply chain to maximize exports and become a more reliable supply chain partner to the world.** PNW export terminals, including those in Kalama, Longview and Tacoma, Washington, just south of Vancouver, generally have four options for loading vessels in the rain:

- 1. Leave the vessel hatches completely open.** This approach is effective during periods of light rain. This allows crews to load between 1,000 and 3,000 MT per hour. It is important to load grain at this rapid pace. Terminal operators advised that if loading is slower, the grain could get wet, spoiling quality.
- 2. Crack the vessel hatches halfway open.** This works well during periods of light or moderate rain. This allows crews to load between 1,000 and 3,000 MT per hour. This approach allows the vessel to be almost fully loaded during periods of rain, but the hatches still need to be opened all the way once the rain passes to finish the loading and level off the grain.



**3. Load grain through the cement feeder holes on the decks.** This approach works during periods of heavy rain, but it limits loading capacity to approximately 40 percent of what is possible during favourable weather. This practice is challenging because the cement hole covers are bolted down with approximately a dozen bolts each and are often sealed shut to ensure they are watertight while at sea. This means it is time consuming to set up and take down (approximately 1.5 hours each).

**4. Install a roof to shelter vessel loading in rain.** One terminal in the PNW has installed a roof that allows grain loading for approximately 50 percent more time during periods of rain. If strong winds are blowing the rain sideways, then the roof is ineffective. The roof is approximately one acre in size, which covers three vessel hatches.

The culture and process of loading in the rain is well-established at PNW export terminals and other terminals around the world. All parties, from terminal operators to unionized crews, push hard for continuous vessel loading at all times, including during the rain, to avoid losing up to one third of their loading capacity. The following are examples of how they incentivize grain loading during periods of rain:

- Exporters have a “ship liaison” position with responsibility to coordinate communications between the terminal and the vessel to ensure the vessel crews understand the rules, requirements and expectations of loading grain (including during rainy weather). This

communication occurs during a pre-arrival meeting. Some terminals issue a bulletin educating ship captains about the common precipitation that occurs in the PNW region and to not be discouraged from loading as a result. This diplomacy is critical to getting agreement from the vessel crews to continue to load during wet conditions.

- Exporters leverage Inspection Agencies, Principle and Indemnity issuers, and the National Cargo Bureau to encourage vessels to continue loading grain during light or moderate rain. One export terminal even shares a letter from an insurer stating that it rains regularly in the PNW and loading during this weather is a normal practice that does not spoil the grain, other than when rainfall is heavy.
- Exporters provide crews rain gear and cleats to alleviate safety concerns.

Exporters impose tariffs that charge the vessels between \$12,000 and \$15,000 per hour if the vessel captain decides not to load grain while in berth, even during light rain. The threat of tariffs typically motivates grain loading during light rain events.

The federal government can play a constructive role in bringing together all stakeholders, including unions, to find reasonable and pragmatic solutions to resolve this issue in a manner that maintains high safety standards. Solutions are required to maximize the capacity of Canada’s grain supply chain.



## Part 6: Technology and innovation

CPKC is at the forefront of predictive analytics in the rail industry. Using patented technology, CPKC gathers data on locomotives, railcars, and track infrastructure with wayside and rolling stock sensors that are strategically located across the network. CPKC's data analytics are replacing manual processes with automation, which provides the ability to optimize the service offering while improving safety.

A powerful example of industry-leading detection technology and predictive analytics is CPKC's remote safety inspection portal, which is located on the Maple Creek Subdivision in Saskatchewan. The inspection portal uses more than thirty-five cameras to scan a train in real time at

track speed, which generates seventy-two high-resolution images per car and 100 gigabytes of data per train. An undercarriage imaging system inspects the underside of passing railcars and locomotives, enabling CPKC to identify missing bolts, bent or broken brake rigging, open bottom gates and broken coupler systems. This technology has been shown to detect 87 percent more defects than through traditional, manual inspections.

The application of detection technology and powerful data analytics helps predict and prevent issues before they occur. This helps CPKC run one of the most efficient and safest railways in the industry.



## Part 7: Sustainability

Operating sustainably is imperative to CPKC's future growth and long-term success in connecting vital markets to the North American and global economies. Through a shared legacy of innovation, responsible business practices, and commitment to excellence, we are building a strong future to create value for our stakeholders and a sustainable business for the long haul. CPKC is focused on integrating our related sustainability principles and practices into our business as we move the goods and commodities that society relies on.

### Science Based Target Initiative's (SBTi) Business Ambition for 1.5°C global campaign

In June 2023, CPKC formally joined the SBTi's Business Ambition for 1.5°C campaign, a global initiative that supports transitioning the global economy to net zero GHG emissions by 2050. As part of this initiative, CPKC intends to establish a science-based emissions reduction target aligned with a 1.5°C future within the next two years. As integration between the legacy CP and KCS networks continues, the company has established a consolidated target that has been recently validated by SBTi. With this new commitment, CPKC intends to reduce scope 1, 2 and 3 well-to-wheel locomotive GHG emissions by 36.9 percent per gross ton-mile by 2030 from a 2020 base year.

### Hydrogen Locomotive Program

We have built and are now testing the first line-haul hydrogen locomotive in North America using fuel cells and batteries to power the locomotive's electric traction motors. We are currently testing the concept in Alberta. Our vision is to have a hydrogen locomotive switching customers by the end of 2023 in Edmonton and Calgary. We plan to expand the program to British Columbia in 2024 with the deployment of a high horsepower locomotive to service Teck Resources. These globally significant projects position CPKC at the leading edge of decarbonizing the freight transportation sector.



In June 2023, CPKC and CSX also announced intentions to enter into a joint venture to build and deploy hydrogen locomotive conversion kits for diesel electric locomotives in the CPKC and CSX fleets.

### CPKC solar farm

CPKC's solar energy farm in Calgary generates up to five megawatts of electricity, while avoiding an estimated 2,600 tonnes of carbon emissions a year, equal to taking approximately 570 cars off the road.





## Conclusion

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At CPKC, moving grain is in our DNA. We have transported Canada's grain for well over 100 years. We will continue to focus on supporting Canada's agriculture sector by offering the safest and most competitive, cost-effective transportation service for our customers. CPKC is well-positioned to supply the transportation capacity required to move Canada's grain and grain products during the 2023-2024 crop year.

CPKC remains committed to strong collaboration with grain customers to understand their transportation

demand forecasts and to ensure alignment and open communications throughout the supply chain. These factors are essential to maximizing the overall performance of Canada's grain supply chain.

We encourage our customers and other interested stakeholders to monitor CPKC's grain performance during the 2023-2024 crop year by consulting our Grain Supply Chain Scorecard at [cpkcr.com](https://cpkcr.com).





## Forward-looking statements

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This report contains certain forward-looking information within the meaning of applicable securities laws in both the U.S. and Canada relating, among other things, to Canadian Pacific Kanas City's operations, priorities and plans, anticipated financial and operational performance, including business prospects, market drivers and outlook, planned capital expenditures, anticipated revenues and the source thereof, programs and strategies (including financing strategies). This forward-looking information also includes, but is not limited to, statements concerning expectations, beliefs, plans, goals, objectives, assumptions and statements about possible future events, conditions, and results of operations or performance.

Forward-looking information may contain statements with words such as "anticipate," "believe," "expect," "plan," "financial expectations," "key assumptions," "outlook," "guidance," or similar words suggesting future outcomes.

Undue reliance should not be placed on forward-looking information as actual results may differ materially from the forward-looking information. Forward-looking information is not a guarantee of future performance.

By its nature, CPKC's forward-looking information involves numerous assumptions, inherent risks and uncertainties that could cause actual results to differ materially from the forward-looking information, including but not limited to the following factors: changes in business strategies; general North American and global economic, credit and business conditions; risks in agricultural production such as weather conditions and insect populations; the availability and price of energy commodities; the effects of competition and pricing pressures; industry capacity; shifts in market demand; changes in commodity prices; inflation; changes in laws, regulations and government policies, including regulation of rates; changes in taxes and tax rates; potential increases in maintenance and operating costs; changes in fuel prices; uncertainties of investigations, proceedings or other types of claims and litigation; labour disputes; risks and liabilities arising from derailments; transportation of dangerous goods; timing of completion of capital and maintenance projects; currency and interest rate fluctuations; effects of changes in market conditions and discount rates on the financial position of pension plans, including long-term floating rate notes and investments; climate change; various events

that could disrupt operations, including severe weather, droughts, floods, avalanches and earthquakes as well as security threats and governmental response to them, and technological changes, and the pandemic created by the outbreak of the novel strain of Coronavirus and its variants (and the disease known as COVID-19) and resulting effects on economic conditions, the demand environment for logistics requirements and energy prices, restrictions imposed by public health authorities or governments, fiscal and monetary policy responses by governments and financial institutions, and disruptions to global supply chains.

The foregoing list of factors is not exhaustive. These and other factors are detailed from time to time in reports filed by CPKC with securities regulators in Canada and the United States. Reference should be made to "Item 1A – Risk Factors" and "Item 7 – Management's Discussion and Analysis of Financial Condition and Results of Operations" in CPKC's annual and quarterly reports filed on Form 10-K and 10-Q, respectively.

Forward-looking information is based on current expectations, estimates and projections and it is possible that predictions, forecasts, projections, and other forms of forward-looking information will not be achieved by CPKC. Except as required by law, CPKC undertakes no obligation to update publicly or otherwise revise any forward-looking information, whether as a result of new information, future events or otherwise.



