



SUNCOR
ENERGY

2022
SARNIA

**Report on
Sustainability
2023**

SUNCOR

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Our approach

To live Suncor's purpose of providing trusted energy that enhances people's lives while caring for each other and the Earth, our corporate strategy focuses on sustainable energy development, long-term thinking and becoming a net-zero company by 2050.

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Executive messages



Rich Kruger
President and Chief Executive Officer

Since joining Suncor earlier this year as President and CEO, my focus has been to drive performance improvement across all aspects of our business to support industry-leading safety, integrity, reliability and profitability. A strong, high performing base business enables superior returns to shareholders and ensures a strong balance sheet to fund investments in climate, air, reclamation, biodiversity, people and communities.

Foundation for success

I am committed to upholding and growing Suncor’s long legacy of sustainability leadership. Our ability to deliver on our environmental, social and governance (ESG) goals depends on our core competitive advantages: a hard-to-replicate physically integrated asset portfolio, long-life reserves without exploration risk, and excellence in the operation and management of those assets. We have a history of collaboration and co-investments with partners, including historic equity partnerships with our Indigenous neighbours in the Regional Municipality of Wood Buffalo, to generate shared prosperity from our operations.

Funding the future

As we continue to build on our existing strengths, we also look to the future and investment in decarbonization, including carbon capture and sequestration, hydrogen and low-carbon fuels. Our net zero by 2050 climate ambition depends on timely and prudent investments in new technology as well as ongoing collaborations and engagement with industry partners, governments and other stakeholders. In this way, we are building a prosperous and sustainable future not only for Suncor, but for all our people, partners, communities and nation.

Rich Kruger
President and Chief Executive Officer

Executive messages



Kris Smith

Chief Financial Officer and
Executive Vice President, Corporate Development

Suncor continued to diligently advance our sustainability goals this past year, leveraging operational excellence, technological innovation and ongoing collaboration and co-investments with our industry peers, governments, associations and communities to accelerate our progress. Supplying secure and reliable energy, underpinned by sound environmental, social and governance (ESG) performance, sets the conditions for a stronger and more resilient business – and world.

Evolving our safety journey

Operational excellence is foundational to Suncor delivering strong ESG performance. That starts with safety, which is why we've been taking substantial steps to improve our safety performance. We're supporting our frontline leaders and workers with a centralized operational and risk management team. We're making sure we have effective controls to prevent incidents as well as controls to help us fail safely if a mistake is made. In tandem, we've also reduced the number of contractors on site. We're leveraging technology wherever possible to have fewer people on site and less potential for injury.

We supplemented these initiatives with leadership training, exercises and workshops to reinforce and standardize safety standards, practices and reporting. These actions align with our company-wide adoption of Human and Organizational Performance principles, a globally accepted operating philosophy that outlines how we work together to learn from incidents and develop practical solutions to improve.

Advancing our climate commitment

Our progress towards our net zero by 2050 objective – with an interim target of reducing emissions by 10 megatonnes by 2030 across our value chain – is well underway. Our coke boiler replacement project, an example of fuel switching from coke combustion to natural gas cogeneration, is expected to be commissioned in late 2024. Our proposed carbon capture and storage (CCS) project in northern Alberta with the Pathways Alliance, a consortium of Canada's six largest oil sands producers working together with federal and provincial governments to address climate change, achieved a critical milestone. The Alliance's recent agreement with the Government of Alberta means the project can advance to detailed engineering studies and fieldwork to assess the feasibility of the proposed carbon storage hub. CCS has been globally recognized as one of the most effective ways to reduce industrial greenhouse gas emissions, and Alberta's geology makes this one of the most ideally suited places in the world to safely inject and permanently store CO₂.

Executive messages



I encourage you to read our 2023 Report on Sustainability to discover more about what we have achieved and where we need to do better.

Kris Smith

Chief Financial Officer and
Executive Vice President, Corporate Development

In 2022 we allocated approximately \$540 million, or 11% of total capital, to low-carbon initiatives. These initiatives – already integral to our business and where we have deep understanding and experience – are an extension of our integrated model that continues to drive value for our shareholders. We are also focused on engaging with suppliers committed to high sustainability standards in order to reduce our scope 3 emissions and providing low-carbon alternatives to support our customers on their own sustainability journeys.

Prioritizing water management

Oil sands water management is one of our most pressing environmental priorities in the Regional Municipality of Wood Buffalo. Collaboration with Indigenous Peoples, governments, local communities and stakeholders is ongoing to develop a policy and regulatory framework to safely manage treated water from our oil sands sites. Once the criteria for managing water on our oil sands sites is established, we can work with Indigenous communities as well as the provincial and federal governments to design the appropriate plan from a suite of technologies. Our goals are to reduce the amount of water used and stored on site, avoid disturbing more land to build additional water storage, and return the landscapes to self-sustaining ecosystems that align with Indigenous treaty rights.

Promoting trust and inclusion

Our relationships with Indigenous People and journey of reconciliation is at the core of our commitment to sustainability. Ventures such as Astisiy – our collaboration with eight Indigenous communities in the Regional Municipality of Wood Buffalo to acquire a 15% stake in the Northern Courier Pipeline – and the Thebacha partnership where the East Tank Farm is jointly owned with the Fort McKay and Mikisew Cree First Nations, represent ground-breaking opportunities for shared prosperity. Thanks to revenue from the Astisiy partnership, for example, the Willow Lake Métis Nation was able to purchase over 200 hectares of land in 2022 to give their community a permanent and sustainable home.

Our partnerships with Indigenous Peoples are based on trust, deep dialogue and meaningful action. In tandem, within Suncor we are shifting toward greater diversity, equity and inclusion to create a culture of performance that embodies these same values and actions in our leadership, governance and everyday actions.

I encourage you to read our 2023 Report on Sustainability to discover more about what we have achieved and where we need to do better. The size of our challenges is not insignificant, but we will continue to take action to create a strong company and society. Thank you to all our partners, and our people at Suncor, who make our progress possible.

Kris Smith

Chief Financial Officer and
Executive Vice President, Corporate Development

Q&A with our Chief Sustainability Officer



Arlene Strom
Chief Sustainability Officer

There's been a spotlight on Suncor's safety record. What steps have been taken to improve performance?

Our core value is safety above all else. That means people need to go home safely at the end of every day to their families and friends. We knew we had work to do in this area and have taken significant steps to address this issue in the past year. First and foremost, this involves frontline assurance and having leaders spend more time in the field so we understand the risks and address them. We are working to simplify our processes and policies so they are easy to access and are understandable. And we've involved our frontline workers to help [identify solutions](#).

We've also adopted a new philosophy called Human and Organizational Principles. Our focus is on continuous improvement and ensuring that if we make a mistake, we fail safely. And we've made significant investments in technologies such as the [collision avoidance system](#) we're installing in every vehicle at each of our mines as well as the [fatigue management system](#) that uses facial recognition technology to alert operators if it detects signs of drowsiness.

We also identified contractor management as another critical area. We've added more structure around how many contractors are working on our sites while ensuring they have the training and tools to stay safe while performing critical work for us.

Water management has been highlighted as a critical issue for the industry. What is Suncor doing to address it?

Water management is critical to how we run our business and it's equally important to the First Nation and Métis communities who live near our operations. Water is sacred to them and intrinsic to their relationship with the Earth and each other. This is a shared issue that we need to work on together. The starting point is finding agreement on water quality and what is required for Indigenous communities to implement their treaty rights. That will help guide what steps we need to take to safely manage accumulated water and tailings on our sites.

The other related challenge is minimizing our tailings inventory and reclaiming the land we've disturbed. This will require reducing the amount of water we store on our sites. We've made real progress at our Base Plant operation in [reducing the amount of fresh water we take in](#). But we also need to manage every single drop of water that falls on our sites, whether it is rain, snow melt or run off. Storing that water slows down our ability to reclaim the land we've disturbed. Moving it around uses energy, which creates greenhouse gas (GHG) emissions. There are opportunities to address these challenges. For us, the starting point is working with Indigenous Peoples to find agreements on the solutions to manage water and how we reclaim the land. Finding that common ground is important as government works to finalize regulations in this area.

Q&A with our Chief Sustainability Officer

Both you and Suncor have been very strong advocates for implementing the Truth and Reconciliation's Commission Calls to Action. Why is this so important?

I love that what I believe in personally is connected to the work that I do. The [Journey of Reconciliation](#) is critical to our future as a company and a country. Acknowledging what happened in the past is an important step in moving forward. I feel a tremendous personal obligation to be part of reconciliation and I'm also proud we've made these commitments as a company. I hope it enables us to walk side-by-side with Indigenous Peoples and be open to learning new ways of seeing and doing things.

It's extremely important to Suncor because so many of our operations are located on or contiguous with traditional Indigenous lands. And we believe our business should also benefit the Indigenous communities that live near our operations. There are huge opportunities in working together with Indigenous Peoples. A good example is the Willow Lake Métis Nation, who purchased 205 acres of land in their traditional territory for their community. They were able to raise the capital for this purchase through their participation in the Astisiy Limited Partnership with Suncor and seven other Indigenous and Métis communities.

You recently joined the steering committee for the Pathways Alliance, the consortium of Canada's largest oil sands producers who are working together to address climate change. What do you hope to accomplish in that role?

It's a tremendous honour to be a part of that group. I give the people who came before me a ton of credit for getting us to where we are and it's a privilege to continue their work.

One of the things that gets me up in the morning is that I can do meaningful work that helps us to contribute to the energy transition and reconciliation. The Pathways Alliance to net zero is squarely in the middle of both of those issues.

We want to make significant progress on our foundational project – carbon capture and storage. There's a lot of work to do and we need to begin a regulatory process. We need to work with First Nations and Métis communities to understand their concerns and the opportunity. We also must get our commercial agreements in place among the six companies that make up Pathways. We need a framework in place with provincial and federal governments. By the end of 2023, I hope we are significantly closer to this foundational project becoming a reality. There's a lot of work ahead, but it's exciting.

You've spoken about your personal pride in seeing the advancement of inclusion and diversity at Suncor. Is there one initiative that stands out for you in this area?

There's a deep connection between creating a respectful work environment and having a safe work environment. I'm very proud of the progress we've made, whether it's [marching in Calgary's Pride parade](#) for the first time ever in 2022 or [publishing our guidebook](#) for employees who are undergoing gender transition so their leaders can help support them; and having lactation rooms at our operating facilities for new parents who have recently returned to work. At the same time, our frontline workers have told us there's more work to do in having an inclusive and respectful workplace.

I feel fortunate to live in Alberta, which continues to be enriched by its diversity. My husband often talks about it as a gift, whether it is receiving a plate of sweets from a friend to mark Ramadan or being invited to a teepee pole skinning ceremony at the Piikani First Nation. I've seen and experienced the progress we've made in this area. I recognize we have more travelling on this journey as an organization but we are committed to moving towards the right destination.



Arlene Strom
Chief Sustainability Officer

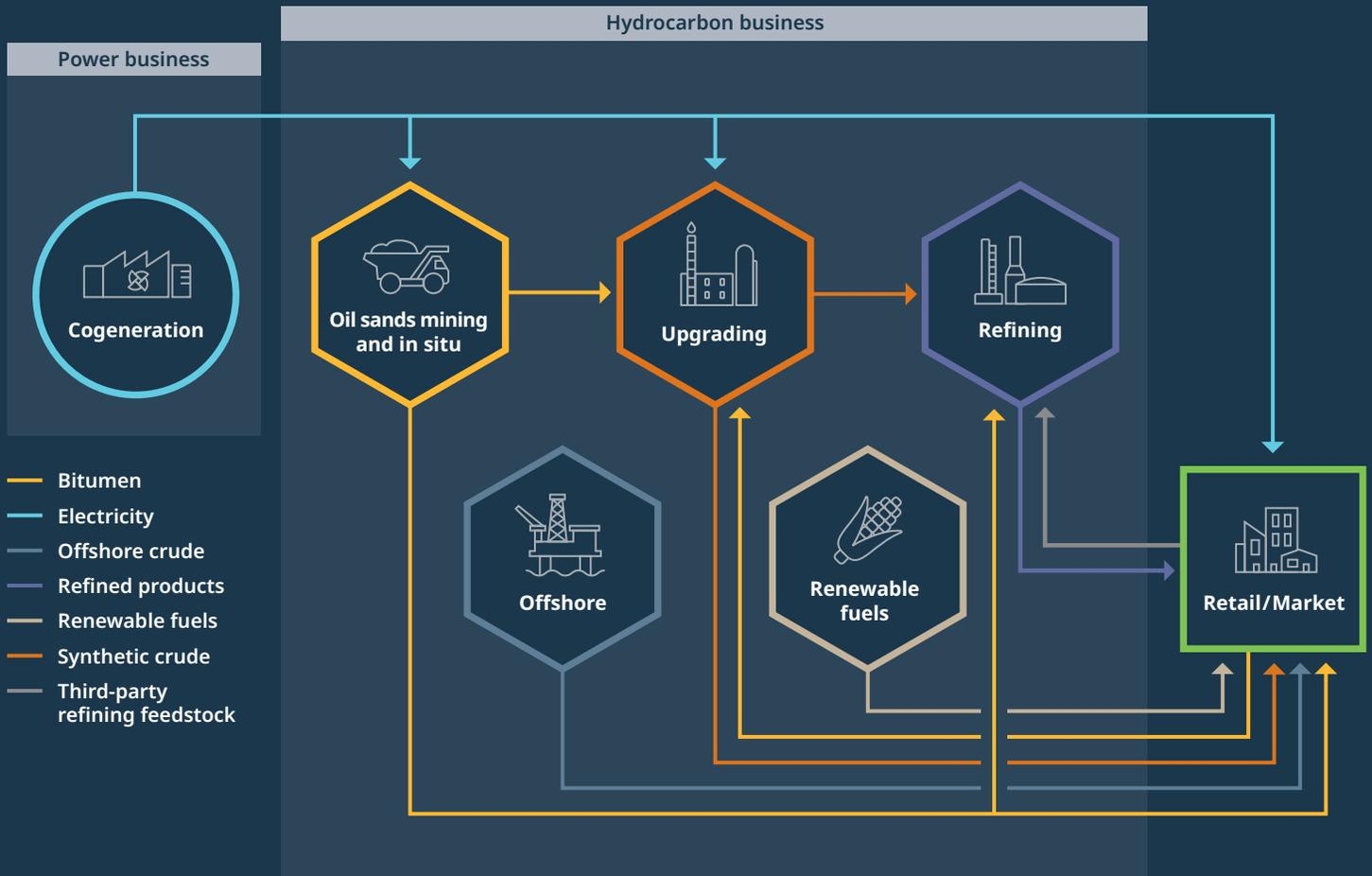
Data restatements

We are changing the way our data is presented within our reports to better represent our integrated model and reflect full operatorship of the Syncrude Project.

Suncor is an integrated energy company focused on oil sands mining and in situ operations, refining and upgrading, and crude and product marketing. We upgrade and refine bitumen into synthetic crude oil and refined products. We sell bitumen and synthetic crude oil to other producers for refining and upgrading. The scale and strength of our physical integration across the value

chain, from production to retail sales is difficult to replicate. Our oil sands base business is supplemented by offshore oil production and we have made strategic investments in low-carbon power and biofuels to complement our base business. Our energy trading activities focus primarily on the marketing and trading of bitumen, crude oil, refined products and power.

Suncor's production activities and resulting products



Data restatements

Given the complexity of our integrated model, we are updating our reporting methodology to capture total production as the sum of all liquid hydrocarbons produced from our business activities. This recognizes that emissions occur from each production activity, regardless of whether the resulting salable products are internally consumed. This method differs from our Annual Report, which uses production values based on final products sold to market. Our previous reporting deducted product transfers within our business and did not reflect the many activities involved in making both intermediate and final products. Due to this change in methodology, our new and updated production value is significantly greater than our previous production methodology.* Therefore, our corporate intensity values are lower than previously reported, although absolute values remain the same.* To better support peer

comparisons, we are also reporting greenhouse gas (GHG) data by product type, in addition to providing it by facility and business unit.

Since assuming operatorship of the Syncrude Project in September 2021, we have focused on sharing best practices, integrating management processes and incorporating operational and workforce data into Suncor's reporting systems. The data alignment is largely complete and we will continue to provide updates as further improvements are made.

All 2018-2022 performance data in the 2023 Report on Sustainability and Climate Report now includes Syncrude, unless otherwise stated. Five-year performance data (2018-2022) for Suncor-operated facilities, including Syncrude, may be found in our [2023 Sustainability Performance Data](#) document.



* Please see footnotes 4i, 5.4t and 8l which describe the changes to our production value, water intensity and GHG intensity respectively.

2022 summary

Our purpose

To provide trusted energy that enhances people's lives, while caring for each other and the Earth.

Our strategy

To be Canada's leading energy company by optimizing our existing hydrocarbon business and transforming our greenhouse gas (GHG) footprint, while growing our business in low GHG fuels, electricity and hydrogen, all enabled by our expertise, long-life resources, integrated business model, strong connection to customers and world-class environmental, social and governance (ESG) performance.

Our climate objectives

We will focus on objectives that build on our strategy and create long-term shareholder value:

- Achieve net-zero emissions (scope 1 and 2) by 2050 and a 10 megatonne reduction in emissions by 2030 across our value chain
- Reduce emissions in our base business and expand our low-emissions businesses
- Work with others to reduce emissions



- 59.6 million cubic metres of bitumen production
- 36.2 million cubic metres of synthetic crude production
- 358 thousand cubic metres produced at Canada's largest ethanol facility
- 27.2 million cubic metres of refined liquid hydrocarbon production
- 10.7 million MWh of oil sands electricity generation
- 1.6 million cubic metres of renewable fuels blended
- Largest producer and consumer of hydrogen in Canada
- 57 Petro-Canada™ stations forming Canada's Electric Highway™ – a coast-to-coast electric vehicle fast-charging network
- \$545 million in technology development, deployment and digital transformation

* The map shows some of the major North American pipelines that connect domestic and export markets; not all Suncor-owned and/or operated pipelines are shown here.
 ™ Trademark of Suncor Energy Inc.

2022 summary

Environment

GHG

- 35.0 megatonnes CO₂e absolute GHG scope 1 and 2 emissions (operational basis)
- 28.8 megatonnes CO₂e absolute GHG scope 1 and 2 emissions (equity basis)
- Pathways Alliance selected by the Alberta government to advance exploratory work for proposed CCS network

Water

- 66.4 million m³ freshwater consumption
- 94% water recycle rate at Base Plant, Fort Hills, Syncrude and in situ facilities
- 5% reduction in water withdrawal from 2021

Land

- 48,726 cumulative hectares disturbed
- 9,189 cumulative hectares reclaimed
- >1 million seedlings planted at Base Plant and Syncrude

Tailings

- 1 surface reclaimed tailings facility
- 5 tailings facilities advancing to closure

Social

Safety

- Integration of Human and Organizational Performance principles
- Implementing new safety technology in mining
- Doubled weighting for safety performance in incentive compensation plans

Workforce

- 17,111 employees

Inclusion and diversity

- 5% Indigenous representation
- 22% female representation (26% management)

Learning and development

- \$18.9 million and ~305,000 hours spent on training and development
- ~1,400 employees have completed our Inclusion Starts With Me web-based training

Social investment

- \$40.4 million in social investments
- ~105,000 hours volunteered by Suncor employees in their local communities

Indigenous relations

- 91% of employees have completed Indigenous web-based training
- 63 Petro-Canada™ arrangements with Indigenous communities

Governance

Supply chain

- 6,636 vendors across Canada and 28 countries
- \$15.5 billion spent on goods and services
- \$3.1 billion spent with indigenous businesses over and above our equity participation agreements
- 20% of Suncor's overall supplier expenditures with Indigenous businesses

Economic

- \$7.7 billion distributed to investors through share repurchases and dividends
- \$5.1 billion in share buybacks
- \$9.3 billion in royalties and taxes paid
- \$8.0 billion spent on employee and contractor services

Corporate governance

- 31% female board representation
- Indigenous representation on the board since 2000
- Climate performance share units first issued in 2022

All data and information represented is as of year end 2022 unless otherwise stated.

Environment

We believe a resilient environment and vibrant communities are foundational to business success. We operate our business in a manner that aims to minimize our impact on air, water, land, biodiversity and climate.

- > Climate change
- > Air quality
- > Waste management
- > Environmental incidents
- > Water stewardship
- > Tailings management
- > Land and reclamation
- > Biodiversity



Climate change

Addressing climate change and providing the world with secure and reliable energy requires investment, technological advancement, product innovation, regulatory support and collaborative partnerships.

Be a net-zero greenhouse gas emissions company by 2050 (scope 1 and 2) and contribute to society’s net-zero goals

By 2030, reduce annual emissions by 10 megatonnes across our value chain



Reduce greenhouse gas emissions through base business improvements

Grow low-emissions energy businesses in renewable fuels, electricity and hydrogen

Work with others to reduce emissions

Our objective is to reach net zero greenhouse gas (GHG) emissions in our operations by 2050 and contribute to Canada’s goals to reduce emissions. We’ve set an interim objective to reduce emissions by 10 megatonnes per year across our value chain by 2030. We see many opportunities to work with customers, suppliers, governments and other partners to help reduce emissions throughout our value chain (including scope 3).

We are advancing a suite of projects to reach our objective. Our focus is on reducing base business emissions with fuel switching, energy efficiency, carbon capture and storage, and other technologies. We also want to grow segments that are already

core to our business, such as low-carbon power, renewable fuels and hydrogen. We expect to spend approximately 10% of our annual capital budget, on average, through 2025 on projects aimed at lowering our emissions and advancing our low-carbon energy offerings that also provide strong, double-digit returns. In 2022, we allocated approximately \$540 million, or 11% of total capital and 35% of economic capital, to low-carbon initiatives.

For more information and detailed performance data on how we’re addressing climate change and our perspective on the energy future, please read our [2023 Climate Report](#).

Air quality

We are committed to improving air quality and reducing emissions near all our operations.

We monitor and manage our emissions to protect air quality for our workforce, the environment and communities where we operate. We work to minimize emissions and odours through operational excellence, project design and technological advances.

Compliance and monitoring

Our operations have controls and procedures to manage emissions and assure compliance with regulatory requirements. We support independent air monitoring and the timely provision of our results to the public and regulatory agencies in all areas where we operate.

We started fence-line monitoring at all our upgraders and refineries in 2022 to closely track the levels of benzene, toluene, ethylbenzene, xylene and 1,3-butadiene. This supplementary data helps us manage facility-wide emissions effectively.

Collaboration

We regularly engage with communities, stakeholders, governments and other external agencies to discuss air pollutant and odour management strategies and best practices. This includes collaborative industry efforts such as Canada’s Oil Sands Innovation Alliance (COSIA) to support research and test new technologies to monitor fugitive emissions. We also developed an enhanced air monitoring program, Commerce City – North Denver (CCND) Air Monitoring, in collaboration with existing air monitoring networks in the Commerce City and North Denver communities. Montrose Air Quality Services, a third-party team of engineers, scientists, analysts and technicians, runs CCND Air Monitoring and provides the community with easy-to-access information from sensors reporting in near real time, as well as through laboratory analysis and a mobile monitoring van.

Our Air Issue Network, a collaboration network, is internally responsible for identifying potential new and emerging air emissions policies and regulations. This proactive approach allows us to take timely and effective measures to manage regulatory compliance and maximize opportunities to improve our performance.

Continuous improvement

We have several initiatives at our sites to reduce releases of air pollutants, including investigating new technologies. We have operational protocols, strategies and best practices that minimize air emissions from process streams. Examples of technologies and measures that mitigate air emissions include:

- retrofitting existing boilers and heaters to low nitrogen oxide (NO_x) burners
- converting mine fleet engines to low NO_x Tier 4 engines
- continuing to minimize flaring at every opportunity during the plant operations through existing flare management plan.



Air class in session

Suncor and scientists from Montrose Air Quality Services hold public sessions with community members in Commerce City and North Denver to talk about Suncor’s air monitoring program. This included going back to class at Alsup Elementary School, where one of the 10 air monitoring stations is located. “With summer school in session, we also saw an opportunity to educate younger community members, so we invited teachers to bring their students out,” says Dr. Michael Lumpkin, a Senior Toxicologist with the consulting firm CTEH. “And you know what? It was terrific. They had all kinds of different questions for us that you might not normally get in an open house or town hall. But they were curious and it’s important for them to know what we are doing in their community.” To learn more, read [this story](#).

Reduced flaring cuts sulphur dioxide (SO₂)

“We gathered a large sum of data available to us to help us connect how much SO₂ was being emitted from flaring,” says Matt Galachiuk, Manager, Process Engineering, Energy and Utilities at Mildred Lake. “We put it into a very clear and simple chart and presented it to the teams. They accepted the challenge and took steps to change how they operate.” As a result, we reduced Mildred Lake’s SO₂ emissions from flaring by 80% from the previous five-year average, a new record low that was recognized with a 2022 Suncor Excellence Award in November. To learn more, read [this story](#).

Air quality

Air quality performance

Our air emissions monitoring and reduction efforts are centred around three key areas: SO₂, NO_x and volatile organic compounds (VOCs). While each facility has its own specific priorities and target parameters, these three elements are consistently tracked and reported on in our assessments.

Sulphur dioxide

The primary source of SO₂ emissions from our facilities is fuel combustion that contains sulphur in our stationary combustion equipment. Flaring can also result in SO₂ emissions. Most of our sites with significant SO₂ emissions are equipped with SO₂ abatement equipment to help prevent the release of SO₂ into the atmosphere.

In 2022, Suncor-wide absolute SO₂ emissions and intensity increased by 11% and 5%, respectively, compared to 2021. The increase in SO₂ emissions can be attributed mainly to short-term outages at a few of our sites in 2022. Overall Suncor-wide SO₂ emissions intensity in the last five years has trended relatively consistently.

Nitrogen oxides

Stationary and mobile combustion equipment are the primary sources of NO_x emissions from our facilities, mainly resulting from fuel combustion.

In 2022, we saw an increase of 5% in Suncor-wide absolute NO_x emissions compared to 2021. NO_x emissions intensity remained flat with minimal year-over-year change. The increase in absolute NO_x emissions was mainly from the increased use of stationary diesel generators at our upstream facilities. There was no significant change at our downstream facilities.

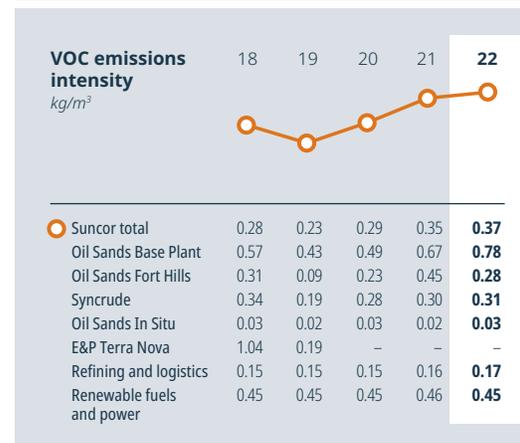
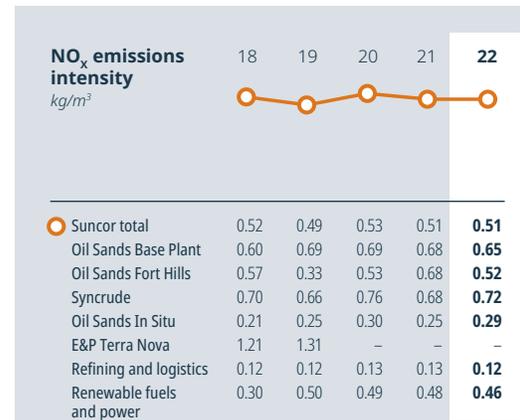
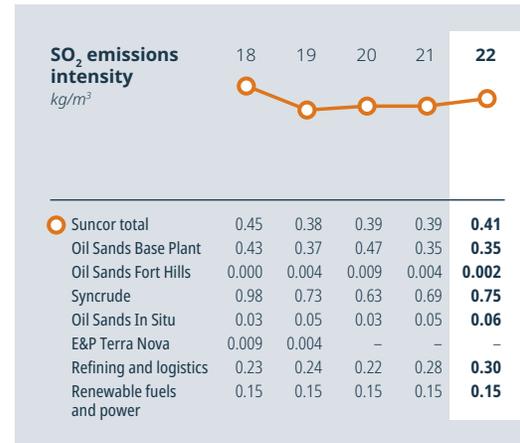
Overall, the five-year NO_x emissions intensity trend remains consistent with no appreciable change. We continue to upgrade equipment and improve their combustion efficiency to minimize NO_x emissions.

Volatile organic compounds

VOCs are a group of more than 1,000 organic substances that easily vapourize and undergo photochemical reactions in the atmosphere. The main sources of VOCs from oil sands operations are tailings facilities and mine faces. VOC emission sources from processing facilities such as upgraders and refineries include various process streams, storage tanks, loading operations, fuel combustion, flaring and fugitive equipment leaks.

In 2022, Suncor-wide absolute VOC emissions increased by approximately 11%, while emissions intensity increased slightly, by 5%, compared to 2021. The rise in absolute VOC emissions is mainly attributed to an increase in fugitive emissions monitored from mining areas, dedicated disposal sites and tailings facilities.

We continue to explore new monitoring technologies to quantify fugitive VOC emissions from area sources more effectively and reliably.



For additional information about this chart and its data, please refer to performance data footnote #7.

Waste management

Working with contractors, suppliers and waste receivers, we use a mitigation hierarchy to continuously improve waste management at our job sites.

The hierarchy starts with avoiding creating waste, followed by reducing, reusing, recycling, treating and disposing as the final option. We also collaborate with industry peers to identify and act on shared waste management opportunities. In addition to complying with all regulatory waste material production, control and disposal requirements, we see waste recycling, reuse and recovery as an opportunity to generate economic, social and environmental benefits.

Resource circularity

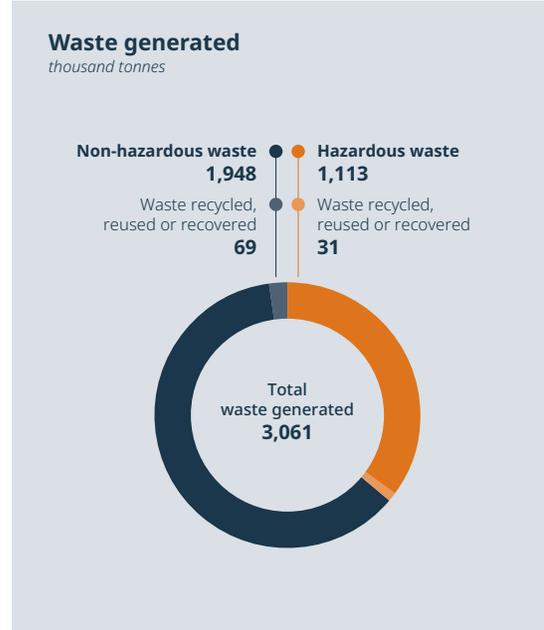
One way we work to reduce waste is by integrating concepts of a circular economy, whereby we reuse, repair and recycle materials for as long as possible in our operations and across our value chain. Through this lens, we look at how commodities flow through our own business. We treat waste as design flaws to eliminate. We look for efficiencies to reduce raw material consumption and improve environmental performance. By reducing our environmental impacts through strategies such as growing our low-emissions energy portfolio and reducing greenhouse gas emissions in our base business, we can play a valuable role in providing the additional energy needs associated with material circularity.

Boiler byproduct into battery producer

A new project at our Base Plant operations is extracting vanadium from fly ash, a byproduct produced at coke-fired boilers. Vanadium produces the electrolyte used in flow batteries, making it a valuable and important element for many applications, including the energy storage market. Increasing the use of lower-cost vanadium for the energy storage industry is anticipated to support increased integration of renewable electricity generation into the energy system. Emissions Reduction Alberta has invested \$7 million through the Circular Economy Challenge to support this initiative. It will ultimately contribute to the low-cost energy storage solutions required to enable greater adoption of low-carbon sources of electricity generation.

Waste performance

We handle large volumes of different types of waste. Construction materials and process water constitute the largest volumes. Waste volumes and hazardous and non-hazardous materials depend upon on-site activities – including construction and periodic equipment maintenance – and may fluctuate annually. In 2022, our waste generation remained relatively consistent compared to 2021 at 3,061 thousand tonnes. We were able to send 99,700 tonnes of waste off-site for recycling, reuse and recovery, also similar to last year.



For additional information about this chart and its data, please refer to performance data footnote #9.



The team at our St. Clair ethanol plant launched a new recycling initiative in collaboration with Cytiva. A zero-waste box was installed to collect syringe filters used for testing at the lab. After a successful trial in April 2022, the program fully launched and has successfully diverted more than 11,000 used syringe filters from the landfill.

Environmental incidents

We are committed to operating our facilities safely and reliably, which includes preventing environmental incidents such as spills and exceedances.

If an incident occurs, we activate incident management to minimize or mitigate any environmental impacts, starting with our emergency response. Environmental incident management includes responding, investigating root causes and applying the findings to our operational plans and processes.

Environmental incident prevention

Preventing environmental incidents and regulatory non-compliance is a critical part of our business. Suncor has the following controls to help prevent or manage incidents:

- asset reliability and integrity monitoring, preventative maintenance, and equipment inspection programs
- monitoring equipment to automatically detect incidents to more efficiently manage events and releases
- infrastructure, such as secondary containment, to mitigate spills from affecting sensitive environmental receptors
- equipment and technology designed for our different operating environments.

Suncor shares best practices through an environmental incident enterprise-wide network with representatives from all our assets. The network regularly discusses any significant environmental regulatory incidents to improve preventative measures for all relevant assets.

Environmental emergency response

We have emergency response plans for all our locations that include responding to environmental incidents. We conduct regular emergency response training, drills and exercises supporting regulatory requirements and individual site needs. These include drills, tabletop exercises, on-water training exercises and/or other mock exercises as part of our emergency preparedness plans, which cover a variety of scenarios. From these exercises, we review lessons learned and follow-up actions to continuously improve our emergency management.

We work with other industry partners and spill-response organizations and leverage mutual aid agreements to share knowledge, experience and resources for emergency response.

During an emergency response, people and the environment are our top priority. Should an incident take place, we immediately implement mitigation and remedial actions. We investigate significant incidents to determine the root cause, improve the internal critical controls and minimize the likelihood of recurrence.

We completed 532 emergency exercises and drills across the organization in 2022.



Environmental incidents

Environmental incident management

Our environmental incident reporting, including reporting on spills, adheres to industry standards and regulatory requirements. We share incident classifications internally through our Environmental Regulatory Incident Community of Practice. We also produce internal reports to increase awareness and improve alignment with internal tools and processes to mitigate the risks of future incidents.

We investigate the root cause of major incidents, such as significant spills** and their impact on the environment, local communities and our business. We develop and implement action plans to prevent occurrences at other assets.

We continue to focus on asset reliability, improving internal critical controls, monitoring to decrease spills or regulatory exceedances, and when required, timely remediation.

We upgraded our technology in 2022 by improving our incident-tracking database to allow more detailed data entry and improved classification for environmental incidents. This allows us to better

assess our environmental performance and identify areas for continuous improvement. We also increased our tracking and analysis of low consequence environmental incidents in 2022 to improve preventative measures.

2022 environmental incidents and non-compliance

Environmental incidents and non-compliance*	72
Significant spills**	0
Reportable spills >1 bbl that reach the environment	8

For additional information about this chart and its data, please refer to performance data footnote #11.

Incident reporting goes digital

As part of a strategy to connect frontline workers in the field to mobile apps and systems, we provide iPhones to our workers where it is safe to do so. One app allows workers to complete safety inspections and critical control assurance digitally. The second app lets people report hazards and incidents in the field. These new digital tools are making it easier for our frontline workers to enter safety data and record hazards. The new process is improving efficiency and data quality, as well as raising real-time awareness of potential incidents so action can be taken.



* Environmental incidents and non-compliance data represents incidents with higher environmental and regulatory risk that aligns with Suncor's risk matrix and reflects, at minimum, an event triggering regulatory reporting or non-compliance to regulatory requirements.

** Significant spills reflect unplanned or accidental release of material whose impact is either off property and takes longer than seven months to remediate, or is on property and takes one year or more to remediate or reclaim.

Water stewardship

Effective water management is crucial to our business today and in the future.



The Athabasca watershed has a deep cultural significance for the region's Indigenous Peoples. We acknowledge its spiritual importance to community members and the understanding that the health of the rivers, landscape, wildlife and people are all interconnected. We believe in meaningful engagement that respects the unique and constitutional rights of Indigenous Peoples, including treaty rights and their deep connection with land and water. By continuing to learn about the rights, history, customs, beliefs, traditions and aspirations of Indigenous Peoples, we can apply this knowledge to our water management practices.

This journey starts with the understanding that we all share the same aspiration for a healthy ecosystem. Water is an essential part of our operations so it's important to effectively manage its

use across our business. To date, these efforts include minimizing withdrawal of fresh water, recycling water and storing it safely.

Even with these practices in place, we face a serious challenge in managing the volume of water currently stored on our mine sites. This includes water used in our extraction and production processes, precipitation and surface runoff that comes into contact with our mines. In addition to our efforts to reduce, reuse and recycle water, safely removing and returning treated water from our sites to the watershed is a necessary step to achieving progressive reclamation and mine closure. Working together with Indigenous communities, we will strive to identify solutions to achieve progressive reclamation and our mine closure outcomes and commitments.

Educating Rodney

With a PhD in Environmental Science, Rodney Guest is an accomplished researcher with many years of experience working on water issues.

But members of Indigenous communities living near the Athabasca River are also educating Rodney and his team about managing water safely. "It really is listening to the things that they talk about that are important when it comes to the water," says Rodney, Suncor's director of Closure Environmental Integrity. "So, you sit, and you listen to their stories, their knowledge."

Suncor values water as a precious natural resource, which is why we are committed to safely returning treated water to the Athabasca River, a necessary step toward closing and reclaiming a mine. Making sure this work is done right has become a personal mission for Rodney. "I've learned we do have shared values around water," he says. "I'm personally invested in the work I do to make sure the water is safe to return to the environment."

Water stewardship

Regulatory requirements

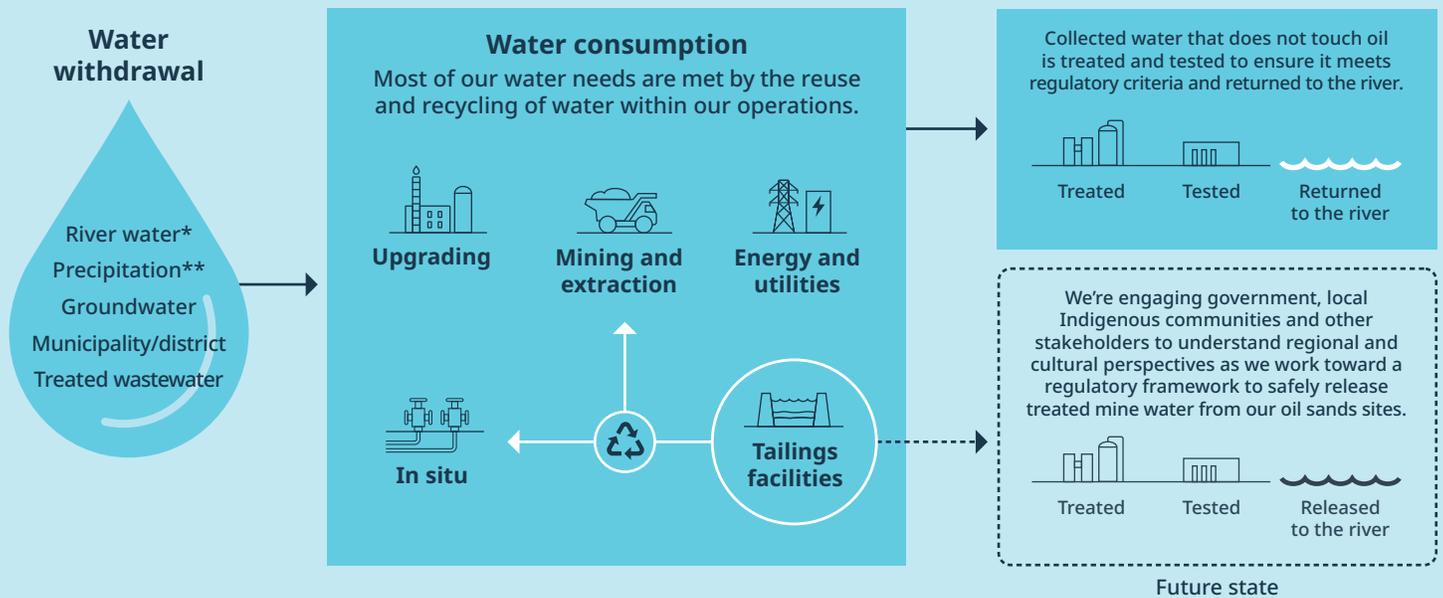
While we regularly submit updates of our reclamation and closure plans to the Alberta Energy Regulator, we are waiting for the federal and provincial governments to finalize the criteria for safely releasing treated water. Returning treated water is a global best practice used by municipal, commercial, industrial and agricultural sectors. Governments regulate water releases to protect the receiving waterbodies and downstream users. Other types of Canadian mines – including copper, nickel, iron ore, diamond and gold operations – have regulations to treat and release water used in their processes. The federal government is committed to developing these regulations for the oil sands by 2025.

Having these regulations in place will allow us to restore and reconnect ecosystems in areas where we've operated. Our systems, combined with strict regulations, will ensure water can be safely

released and protect the environment (fish, insects, birds, plants, animals) and downstream users. Once the criteria for releasing treated water are established, we can design treatment plans to meet these objectives. Regulations are key in our efforts to achieve our reclamation and closure plans, which require reducing the amount of water stored on site, avoiding the need to disturb more land for additional water storage and returning the landscape to a self-sustaining ecosystem.

We will continue to work with governments, communities and stakeholders to develop the policy and regulatory framework to enable the safe release of treated mine water from our oil sands sites and reduce the need for more tailings facilities. Working together with Indigenous communities, we will work to identify water management solutions that respect their unique constitutional and treaty rights and acknowledge their deep connection with the land and water.

Upstream water management



* River water is reported as surface water.

** Precipitation is reported as industrial runoff water.

Water stewardship

Our approach

A holistic approach to water management is necessary to sustainably develop our oil sands mines and meet our commitments to reclaiming disturbed lands. This approach needs to consider all components of water management, including reducing, recycling, reusing and releasing treated mine water.

Water at oil sands mines contains components such as sand, silt, clay, organics, salts, and a range of metals. These constituents are largely common to process water used in other types of mining and many other industrial activities. There is a wide range of proven technologies already in use in Canada and globally to treat process water so that it is safe for release.

We have made significant investments in applying, adapting and testing different water management approaches and the effectiveness of various treatment processes and technologies on oil sands mine water to achieve levels safe for release to the environment.

Every site is different and requires flexibility when choosing appropriate technologies for treatment. Our solutions for water management will continue to include reuse and recycling and where water release is appropriate, it will be protective of the environment and be considered with the input and knowledge of Indigenous communities.

Monitoring

Monitoring is critical for measuring the effectiveness of our water management processes. We are required to monitor water quality on our sites and assess ecosystem impacts in the watersheds where we operate. We also participate in the Oil Sands Monitoring (OSM) program along with Indigenous communities and government stakeholders to conduct regional monitoring. The OSM program is specifically focused on tracking potential environmental impacts from oil sands facilities. It also assesses potential cumulative environmental effects from oil sands development to help inform future monitoring, mitigation and management decisions.

Suncor reports to CDP, an independent not-for-profit organization that records corporate water information. We have completed annual CDP water responses since 2010 to provide visibility and accountability to stakeholders on water-related information. Please visit our CDP water response on our [Sustainability reporting website](#) for more details.



Turning down the taps

Mike d'Entremont has a master's degree in chemical engineering, but he doesn't need it to explain why Suncor embarked on an ambitious plan to reduce its intake of fresh water at Base Plant. "If you are sitting in the bathtub and it's about to overflow, do you call a plumber and get them to build another bathtub and start bailing water into it? Or do you turn off the tap? When you explain the problem in simple, compelling terms, people understand it," he says. "Base Plant's water intake from the Athabasca River was reduced to only a quarter of our annual withdrawal limit. The strategy started with small high-value projects such as sharing water with Firebag and then we needed a bigger solution. A big step was treating and recycling wastewater inside our utilities and upgrading areas to reduce river water intake. All the projects combined allowed us to slow the tap for the filling bathtub." Mike is currently looking at applying this same approach at the Mildred Lake operations. "I'm excited about what we're doing. We understand the importance of water in operations and beyond. Taking care of it is important. Not doing anything really isn't an option. I'm pleased with what we've achieved and there's more to come."



Water stewardship

Water performance

Mining

While our oil sands mines do not operate in a water-stressed region,* our water management practices focus on minimizing Athabasca River water diversion, maximizing the recycling of process-affected water and minimizing the onsite storage of water. We continue to operate well below our annual water licences.

Water consumption efficiency at our mining and upgrading facilities is largely affected by design and configuration. Water withdrawal often depends on the amount of annual precipitation. Suncor's water withdrawal remained relatively consistent in 2022.

In 2022, Base Plant decreased both freshwater consumption and intensity by 8% at 12.25 Mm³ and 0.67 m³/m³ of hydrocarbon production respectively. This is due to improved water management, along with more accurate tracking systems. Fort Hills' freshwater consumption decreased by approximately 20% in 2022 to 8.52 Mm³ with an intensity of 0.90 m³/m³ of hydrocarbon production as less water was required in the operation. At Syncrude, annual freshwater consumption totaled 39.87 Mm³, increasing by 8% due to higher production rates compared to last year. Syncrude had a freshwater consumption intensity of 2.31 m³/m³ of hydrocarbon production.

Both Suncor and Syncrude report within the Mining Association of Canada's Towards Sustainable Mining Water Stewardship protocol. This protocol is comprised of four focus indicators that help guide our performance: water governance, operational water management, watershed-scale planning, and water reporting and performance indicators. All of our mining operations have been assessed at an AAA score for the watershed-scale planning indicator and an A score in the other three indicators.

In Situ

For our Firebag and MacKay River in situ sites, water is drawn from recycled wastewater from our oil sands upgrading and utilities operations. We also use surface runoff water collected within the facility boundaries and groundwater wells. In 2022, the average water recycling rate at our in situ sites was approximately 98%, reflecting continued operational efficiencies and further site water optimization.

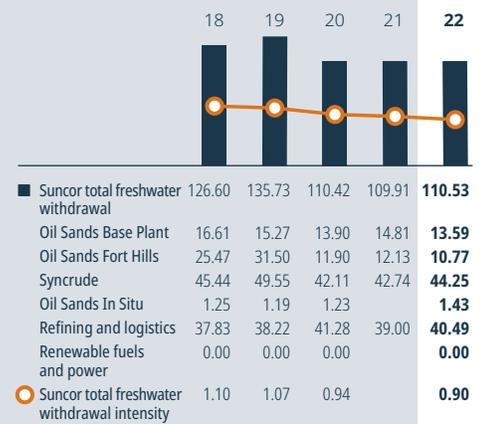
In 2022, approximately 44% of the total water used at the Edmonton refinery was from recycled wastewater supplied from the Gold Bar Wastewater Treatment Plant in Edmonton.

We achieved an average 93% recycling rate at our Base Plant, Fort Hills and Syncrude mining operations.

Freshwater withdrawal from surface water and groundwater

million m³
Intensity

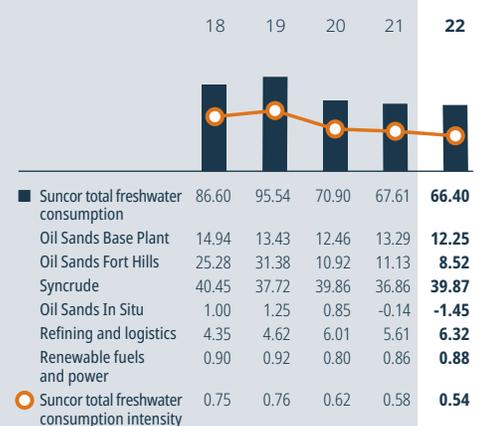
million m³/m³ liquid hydrocarbon



Freshwater consumption

million m³
Intensity

million m³/m³ liquid hydrocarbon



For additional information about this chart and its data, please refer to performance data footnote #8.

* The United Nations defines a region as water-stressed when a territory withdraws 25% or more of its renewable freshwater resources.

Water stewardship

Refining and logistics

Our refineries use fresh water for heating and cooling. All refineries have unique requirements and considerations based on the watersheds in which they operate. The refining and logistics freshwater consumption intensity stayed consistent at 0.23 m³/m³ refined liquid hydrocarbon production. We continue to explore and implement local initiatives that will result in more efficient water use, with less fresh water drawn from local water sources.

None of our assets operate in areas of high risk of water stress. However, Suncor's Commerce City refinery in Colorado operates in a region that is classified as moderate risk, where water supply shortages would require bringing in water by pipeline or truck. We continue to monitor the status of the basin while focusing on implementing industry-leading innovation at our facilities to reduce, reuse and return water.

The Water Technology Development Centre is one site where Suncor can test new water technologies. Located at our Firebag in situ facility in northern Alberta, the centre is a first-of-its-kind demonstration site for COSIA partner companies to pilot water treatment technologies. Read more [here](#).

Exploration and production

In our East Coast Canada offshore operations, water is either produced offshore through desalination, or is transferred via vessel from St. John's, N.L. Water data for our Terra Nova Floating, Production and Offloading facility will be reported in 2024.



Signs of progress at the micro level

Peter Dunfield has spent a long and distinguished career poking around rice paddies, peatlands, volcanoes and tailings facilities searching for nature's tiniest grazers, single-celled micro-organisms that chew up methane. That quest led the University of Calgary microbiologist to Mildred Lake West's in-pit tailings facility in 2012, where he and his team isolated, identified and described two new micro-organisms – *Methylicorpusculum oleiharenae* and *Oleiharenicola alkalitolerans*. "You have to use Latin when describing new species. The first means small-bodied methyl-eater while the second one is alkali-tolerating oil sands dweller," says Peter. "Identifying these new species is fun, although our main job is to monitor the microbial communities in Base Mine Lake using DNA signatures and compare them to an active tailings facility and a natural lake." In the case of *Methylicorpusculum oleiharenae* – the small-bodied methane eater – what interests Peter is that the micro-organism is now almost nonexistent in Base Mine Lake eight years later. "That particular micro-organism has now almost disappeared from Base Mine Lake, which is an indication the lake is no longer a tailings facility," he says. "There are still methane-eating bacteria in Base Mine Lake, but different ones have colonized the lake because the conditions have changed and that's a sign of progress. There have been dramatic changes in the microbes in the lake over the past six years – it really doesn't resemble a tailings facility anymore. It's somewhere in between a tailings facility and a natural lake now." Read more [here](#)

“

It really doesn't resemble a tailings facility anymore. It's somewhere in between a tailings facility and a natural lake now.

Peter Dunfield
University of Calgary

Tailings management

We use world-leading practices to responsibly manage tailings at our mine sites.

When tailings are poured, the sand quickly separates to form coarse tailings deposits. Smaller particles of clay and silt remain suspended in water and form fluid tailings. Treatment of fluid tailings expedites the separation of the suspended clay and silt particles from the water. Many of our technology improvements focus on treating fluid tailings. Treating fluid tailings quickly and cost-effectively, as well as safely releasing water from our sites once regulations are in place, is critical to improving our overall reclamation performance and moving toward mine closure.

We currently treat more fluid tailings than we produce at our Base Plant site due to our holistic tailings management approach and permanent aquatic storage structure (PASS) treatment process. We are also progressing several tailings facilities to closure and will be increasing treatment capacity in the next few years. Our work

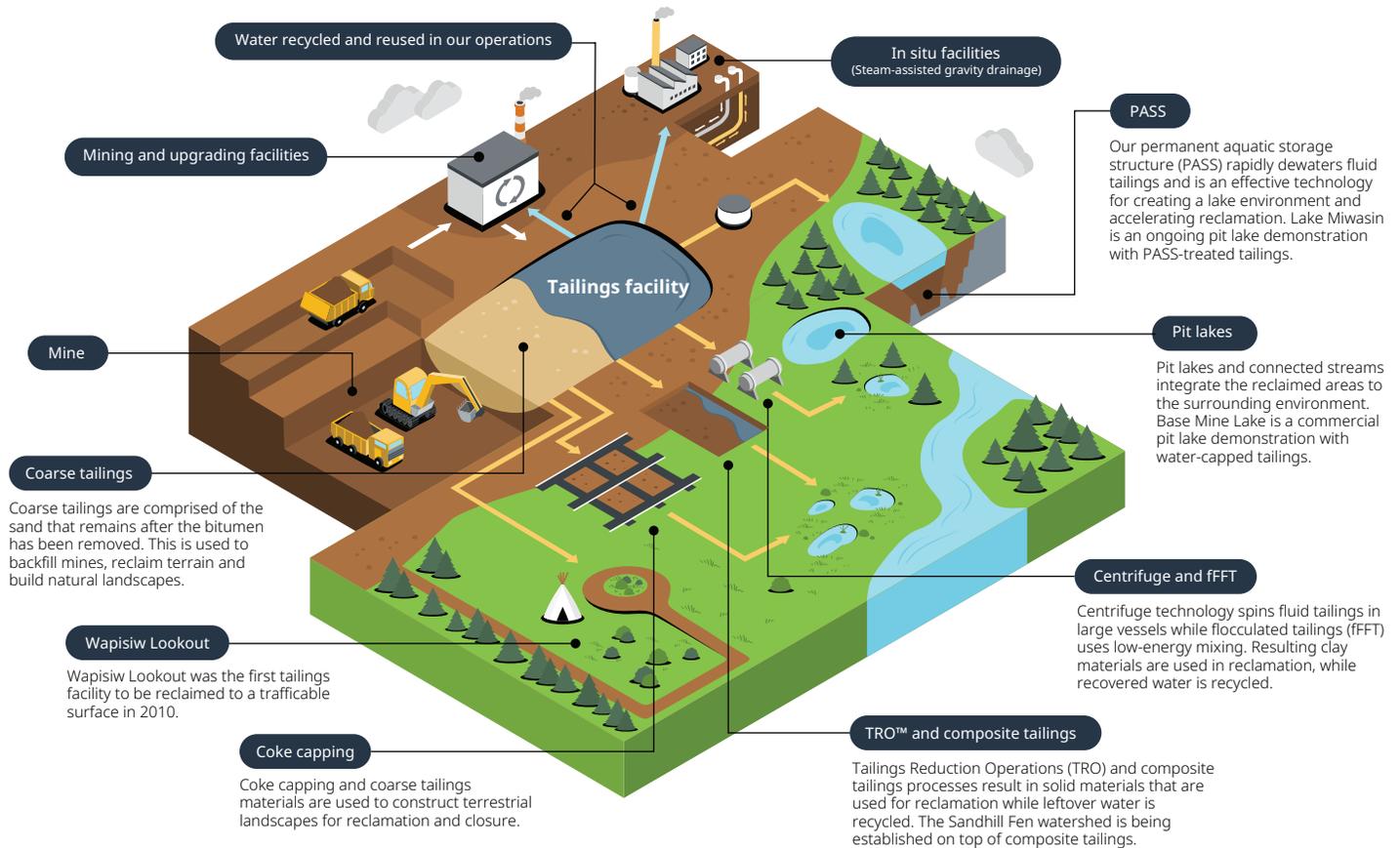
to treat and dewater fluid tailings supports our reclamation and closure plans.

We use the coarse tailings to backfill completed mine areas and build dam structures. Coarse tailings are ready for use in reclamation once they are placed in their final location and incorporated into the closure landscape. We use robust operational management systems that emphasize:

- corporate accountability for tailings management
- effective operations integrity and governance
- robust dam safety management.

The continued integration of Syncrude and the adoption of a regional operating model has allowed for more effective sharing of best practices across our mining and tailings operations.

Tailings management Treating and reclaiming tailings



Tailings management

Regulatory requirements

The Alberta government developed the current Tailings Management Framework (TMF) in the Lower Athabasca Regional Plan to provide direction to manage fluid tailings volumes. The Alberta Energy Regulator also implemented Directive 085: Fluid Tailings Management for Oil Sands Mining Projects, as a key part of TMF implementation, to minimize fluid tailings inventories through treatment and progressive reclamation during the life of a project.

Our tailings management plans align with the TMF and Directive 085. These plans incorporate what we've learned by implementing various treatment technologies, sharing information and best practices with Canada's Oil Sands Innovation Alliance (COSIA) members and extensive engagement with communities.

Dam safety and integrity

We ensure integrity of tailings dam structures through extensive checks and balances for design, construction and monitoring. This includes a series of internal and external reviews.

Strict requirements govern tailings and dam safety in Canada. The Alberta government has established industry-leading practices for dam safety management. We use a panel of external experts to conduct annual reviews.

Our dam safety programs are world-class and consistent with the Alberta Dam Safety Directive. One aspect of this comprehensive directive requires operators to test dam-breach emergency preparedness with external stakeholders. Industry conducts exercises from time to time, including with the Regional Municipality of Wood Buffalo's (RMWB) Regional Emergency Services Centre. Suncor Base Plant conducted a regional test with external stakeholders in March 2023.

Our tailings management and dam safety practices follow our Operational Excellence Management System. This directs inclusion of improvements from the ongoing development of geotechnical engineering practices and industry-leading tailings and dam safety guidelines and regulations. We employ specialized and experienced engineers – referred to as engineers of record – for each tailings facility and their associated dam structures. These individuals are qualified to lead the design work for those facilities. They work with internationally experienced design consultants, referred to as designers of record. Independent external boards also review and critique ongoing design, construction and operation of our tailings facilities several times a year. We also report to our Environment, Health, Safety and Sustainable Development committee of the Board. The Executive Vice President Operations for Mining and Upgrading is the executive responsible for dam safety.

Engagement

We engage and work with Indigenous communities and stakeholders to review our approach to tailings management and share progress and challenges. We also incorporate feedback into future engagement plans to improve information sharing. Annual engagement sessions are hosted for communities to offer feedback on our approach to tailings management. We were pleased to welcome back Indigenous community members and government representatives for in-person tours of reclaimed sites and projects when pandemic restrictions lifted in 2022.



Dam safety recognized

The Canadian Dam Association recognized Suncor for excellence in dam management with its 2021 corporate award. Our dam safety program protects the integrity of tailings structures through extensive checks and balances for design, construction and operations, as well as a series of internal and external reviews and formal audits. Responsible management of our tailings facilities is also a key component of the Mining Association of Canada's (MAC) Towards Sustainable Mining (TSM) initiative. As a member, Suncor follows industry best practices in safe tailings dam operations. Internal assessments are required annually, with an independent, external verification every three years. Through our membership in the MAC TSM, we continue to monitor our alignment with the expectations outlined in the Global Industry Standard on Tailings Management. Read more [here](#).



Tailings management

Technology

Finding ways to manage tailings is critical to reclamation planning and performance. What works for one mine may not work for another due to site-specific conditions. We have implemented a suite of technologies to manage tailings inventories and are developing more.

At Base Plant, implementation of the TRO™ and the PASS fluid tailings treatment processes have reduced fluid tailings volumes. The Syncrude mines, Mildred Lake and Aurora, have made progress through technologies such as centrifuging and composite tailings as well as a commercial-scale pit lake demonstration.

We share our research and development findings with other operators through organizations such as COSIA to continuously improve tailings management.

Tailings performance

Work continues to manage and treat tailings. As mining operations have expanded, the volume of fluid tailings has increased. We manage and treat our fluid tailings based on approved and regulated plans for each of our sites.

We continue to implement new technologies to increase treatment capacity in support of accelerated reclamation. The integration of our mining operations will lead to further opportunities to share best practices towards reducing tailings fluid volumes. Our Fort Hills mine is early in its life cycle and will benefit from the treatment technologies developed, tested and implemented at our legacy mines.

In addition to managing fluid tailings inventories, all assets must manage annual precipitation, which adds to our fluid storage volume. Without effluent regulations allowing for the safe release of treated water, we continue to manage any additional water by adding it to our stored fluid inventory. Despite the increase in stored water, we continue to focus on progressive reclamation and progress toward mine closure by advancing more tailings facilities to closure in a safe and environmentally responsible way.

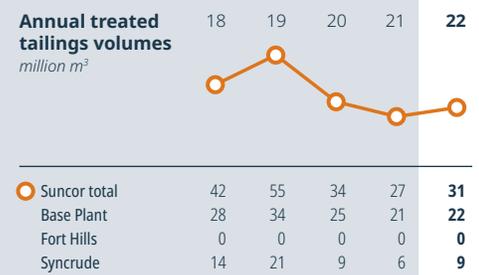
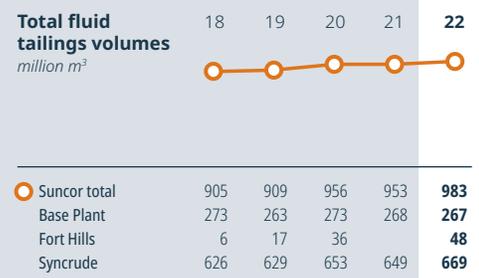
Tailings facilities status to closure

	2010			2022		
	Base Plant	Fort Hills	Syncrude	Base Plant	Fort Hills	Syncrude
Active	7	0	7	6	1	8
Inactive	1	0	0	3	0	0
Advancing to closure	1	0	0	2	0	3
Surface reclaimed	1	0	0	1	0	0

For additional information about this chart and its data, please refer to performance data footnote #10.

Flocculated tailings

In 2007, Syncrude began developing a new low-energy technology to treat fluid tailings. This involves treating fluid tailings with a coagulant, followed by in-line flocculation with a polymer to produce a material called flocculated tailings. This material is hydraulically placed in deep deposits for terrestrial reclamation. A pilot plant operated successfully for a number of years and Syncrude is now commercializing the technology in a staged approach.



For additional information about this chart and its data, please refer to performance data footnote #10.

Land and reclamation

Energy development disturbs land. To help address this, we create and implement detailed reclamation plans to mitigate the impact of our operations.

At Suncor, we find ways to reduce the amount of land we disturb and focus on facilitating the return of a biologically diverse landscape and naturally sustainable ecosystems after project development. To do this, we are:

- reducing the impact of our operations on the environment through scientific research and implementing best management practices
- collaborating with neighbouring companies to reduce cumulative effects of development
- progressively reclaiming disturbed lands no longer required to support operations
- working with industry peers and multi-stakeholder organizations on initiatives to conserve and reclaim habitat for birds, mammals, fish and other species
- integrating traditional knowledge from Indigenous Peoples.

How the land will be used following reclamation and closure is referred to as end land use. This is an important consideration throughout the

life cycle of a project, from initial planning through to final reclamation.* This includes considerations such as what species of trees and shrubs to plant and when and where to plant them. Before developing a new mine or in situ project, our plans outline the life of the project through to reclamation and closure. We update plans regularly throughout the project and incorporate changes, new knowledge and technologies as they are developed. The Alberta Energy Regulator must authorize reclamation and closure plans for all new projects in Alberta and approve updated plans as they are developed.

We're committed to preserving and promoting biodiversity in all areas where we work. This includes conserving habitat and reclaiming the landscape we've disturbed. To read more about how we do this, see our Biodiversity section on [page 30](#).

We engage with Indigenous communities on our reclamation practices. To read more about this, see our Indigenous relations section on [page 45](#).

Reclamation process



* Once land is revegetated as per the reclamation plan, it is considered "reclaimed." Only after reclaimed land meets the expectations of equivalent land capability and goes through an application and approval process with the regulator can it be certified and returned to the Crown.

Land and reclamation

Reclamation performance

Mining

Since Suncor began Base Plant operations in 1967, we have reclaimed approximately 11% of the total active footprint, bringing our cumulative total to 2,496 hectares (ha). In 2022, the total land disturbed at Base Plant increased slightly to a cumulative 18,313 ha. We planted approximately 107,750 tree and shrub seedlings, bringing the total cumulative seedlings planted to more than nine million. With the mineable resource at Base Plant's Millennium and North Steepbank Extension mines anticipated to be depleted in the next decade (2030s), we are working to add detail to our plan for reclamation and closure of the site. This will include further engagement with local Indigenous communities.

Our Fort Hills site started production in 2018 and has disturbed 7,099 cumulative ha, which is 6% higher than 2021. Fort Hills is in the early stage of development with limited reclamation opportunities at this time. We plan to progress reclamation as quickly as possible when areas are no longer required for operations.

Syncrude started operating in 1978 and since that time, more than 6,000 ha has been reclaimed, in addition to 104 ha of land certified and returned to the Crown. This represents about 19% of the land disturbed to date. In 2022, approximately 894,000 seedlings were planted, bringing the total to 12.7 million trees and seedlings.

In Situ

Since our Firebag and MacKay River in situ projects began operating in 2004 and 2002 respectively, approximately 76 ha of land have been permanently reclaimed and are being monitored. We also received 11 reclamation certificates from the Alberta Energy Regulator in 2022 for borrow pits used to construct the East Athabasca Highway, the main access road into the Firebag site. More than 21,500 trees and shrubs were planted at Firebag in 2022. The seedlings were grown from locally sourced stock and included species of interest to Indigenous communities.

Finding fens naturally

Mother Nature always finds a way. That's something Jon Hornung – Sustainability Advisor for Technology Innovation – has learned in more than 20 years of studying life everywhere from the boreal forest of northern Alberta to rainforests in central America. The environmental scientist has seen that unfold again on reclaimed landscapes. "We have found wetlands forming, even in areas that were originally planted as upland forests decades ago. And that's very important given how important wetlands are for boreal ecosystems," says Jon. To find the right areas with the right soil moisture for future wetlands, Suncor used remote sensing from satellites across its reclaimed areas. "It shows we have opportunities to help create wetlands without the costs associated with engineered landforms," Jon says. "We don't have to over-engineer wetlands. These things happen on their own and we need to understand how that happens and encourage it on our reclaimed landscapes."

Study sees natural progress in reclaimed lands

A new study looking at almost four decades of data identified a wide variety of native plants, usually found in natural undisturbed boreal landscapes, have returned to reclaimed sites. "Our reclaimed sites demonstrated promising and accelerating patterns of convergence toward those found in undisturbed boreal sites," says Craig Farnden, a revegetation specialist who analyzed data from almost 200 reclamation sites across Mildred Lake, with the earliest planted in 1980. "Our reclamation practices have evolved over time to better conserve seeds and vegetative fragments in reclamation soils that can grow into entire plants, and better facilitate native species immigration. This sets the stage for nature to do what nature typically does. Through this work, we are meeting the expectations that neighbours and regulators place on us to do it right." Learn more [here](#).



For additional information about this chart and its data, please refer to performance data footnote #10.

Biodiversity

We're committed to preserving and promoting biodiversity in all areas where we work. This includes conserving habitat and reclaiming the landscape we've disturbed.

Our approach

Throughout the life cycle of our projects, we seek to avoid, minimize, restore and/or offset impacts to biodiversity from our operations. We do this by:

- incorporating the principles of the mitigation hierarchy,* integrated land use and management planning processes into project design, construction, operation, reclamation and closure
- mapping our disturbance footprint and using monitoring tools such as wildlife sweeps to understand and ensure our development activities avoid sensitive environmental areas and wildlife potentially affected by our activities
- minimizing disturbances to the greatest extent possible while

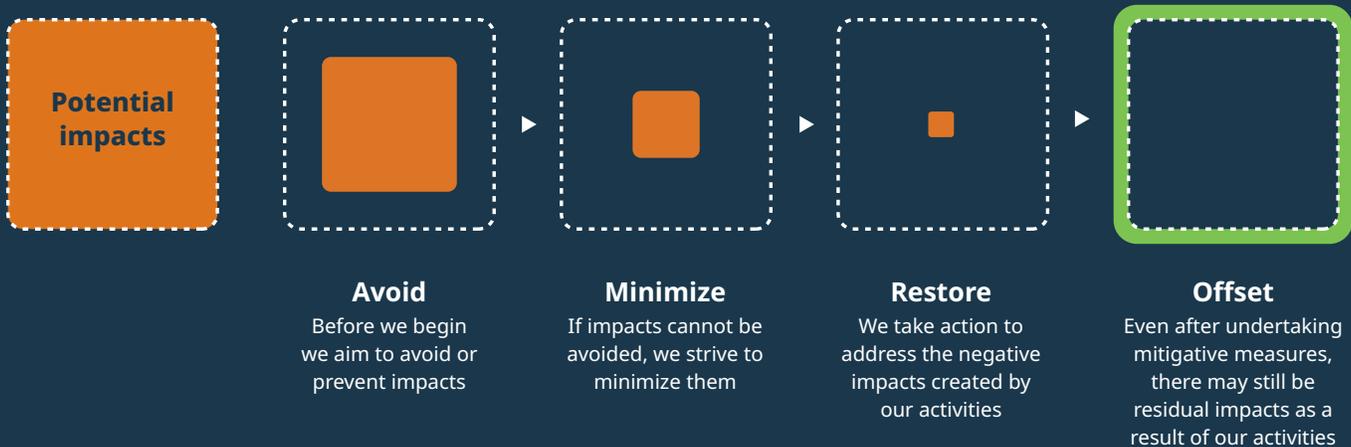
considering multiple factors, including safety, operations and the environment

- employing mitigations such as wildlife crossings, low-impact seismic, waste management procedures and managing human-wildlife interaction to reduce conflicts
- measuring and reporting our performance against the Mining Association of Canada's Towards Sustainable Mining [Biodiversity Protocol](#)
- engaging with local Indigenous communities (read more about this in our [Indigenous relations section](#))
- working internally, with industry peers and with multi-stakeholder organizations to monitor, conserve, restore and reclaim habitat for birds, mammals, fish and other species, including species at risk such as caribou.

Monitoring to protect wetland diversity

To consider the potential impacts mining has on biodiversity within the McClelland Lake wetland complex (MLWC) at Fort Hills, we developed the mitigations and monitoring measures in the MLWC Operational Plan after extensive work and a thorough review by the regulator. These include an ongoing monitoring and response framework approach with increasing levels of monitoring, investigation and mitigation, as required, for the life of the mine. Combined with ongoing evaluation and oversight by the MLWC sustainability committee, the operational plan is intended to protect biodiversity of the MLWC through mine closure. No Net Loss Lake has been constructed to compensate for changes to fish habitat that will happen as a result of the Fort Hills mine development. Working with Fisheries and Oceans Canada, the lake was created to provide an ideal fish environment. Local Indigenous communities reviewed monitoring programs and are kept informed on an ongoing basis with respect to the monitoring and evolution of this lake.

Mitigation hierarchy



* The mitigation hierarchy is a series of steps that are considered throughout the life cycle of a project in order to limit negative impacts from our activities on biodiversity. While the steps are considered sequentially and in advance of undertaking activities, site-specific conditions encountered may warrant revisiting the mitigation hierarchy to further avoid and/or minimize negative impacts to biodiversity features.

Biodiversity

Biodiversity monitoring and evaluation

We monitor biodiversity in and around our operations and reclaimed sites in accordance with our regulatory commitments and aligned with broader regional initiatives such as the Canada-Alberta Oil Sands Monitoring (OSM) Program. Reclaimed terrestrial, wetland and aquatic areas are monitored according to site-specific reclamation monitoring plans that assess the components of biodiversity while vegetation regrows and ecosystems develop over time. This monitoring allows us to collect soil, vegetation, wildlife use and water quality information to support reclamation certificate applications once it's determined requirements have been met. We further evaluate biodiversity across our sites through wildlife monitoring. This is conducted in accordance with approved site-level wildlife mitigation plans that include bird deterrents at ponds; the use of wildlife crossings over above-ground pipelines; and strategies to manage human wildlife interactions.

Approximately 50% of Suncor's oil sands lease areas in northern Alberta are within or near the range boundaries of the caribou, which is listed as vulnerable on the IUCN Red List of Threatened Species. These leases are also entirely within the geographic range of little brown bats and are located along the migratory route of whooping cranes. Both of these species are listed as endangered. Through remote cameras, we are able to monitor wildlife both in reclaimed areas and in proximity to our oil sands operating sites. Notable species observed using reclaimed habitat include the Canadian toad, Canada warbler and olive-sided flycatcher.

In collaboration with our industry peers, stakeholders and regulatory agencies, we work with organizations such as the Alberta Biodiversity Monitoring Institute, the OSM Program and Canada's Oil Sands Innovation Alliance (COSIA) to:

- mitigate and monitor the impacts of our operations, such as waterfowl landings on our tailings facilities
- understand and reduce the cumulative effects of oil sands development
- address regional biodiversity risk.

We have partnered with Alberta Environment and Protected Areas and the University of Alberta on a project to better understand bear behaviour near industrial sites and improve worker and bear safety. "The collaring project – a first in industry that started May 2022 and will conclude in September 2023 – will provide a better understanding of how bears move around our facilities and react to our programs," says Rebecca Paton, Suncor's Wildlife Specialist. Up to 50 Black bears will be collared on or near our Firebag and Base Plant facilities with highly visible orange, yellow, and tan collars. As the collared bears move around, they may be observed both inside and outside our operating area.

The OSM Program was formed out of a recognized need to create a robust, reputable and science- and traditional knowledge-based monitoring system in the oil sands region. The goal for the program is to provide assurance to local communities, the province, the country and the international community that oil sands resources are being developed responsibly. As key funders, we have significant interests in ensuring the program succeeds. We believe we add value as the OSM Program aims to highlight key questions and pursues increased transparency, improved governance and meaningful stakeholder engagement.



Lessons learned at COP15

Suncor representatives attended the Conference of the Parties (COP) 15, the United Nations Biodiversity Conference, held in Montreal in December 2022. All the member states at COP15 agreed to adopt a Global Biodiversity Framework, which includes a pledge to protect 30% of the world's lands and oceans by 2030. Other goals and targets include reducing the loss of biodiversity, restoring ecosystems and protecting Indigenous rights. "As an organization, we understand the importance of biodiversity and Canada's commitment to goals and targets of the framework. Being at COP15 highlighted the increased expectations of global stakeholders and reinforced the urgency to address biodiversity loss along with climate change and not waiting until we've met net-zero commitments," says Mark Boulton, Suncor's Biodiversity and Land Use Policy lead, who attended COP15. "At the end of the day, we're trying find a way to balance our disturbance with reclamation, conservation and protection. It will all be important as we work toward contributing positively to biodiversity and strive for more nature tomorrow than we have today." Read more about Mark's thoughts on COP15 [here](#).

Biodiversity

Caribou recovery and conservation

Complex combinations of natural- and human-caused factors in the oil sands region have created landscape changes and indirectly increased predation, resulting in declining caribou populations. We recognize that we must contribute to caribou recovery and conservation while mitigating our impacts on the environment.

We are a member of COSIA's Regional Industry Caribou Collaboration joint industry project. The project works with academics, the Government of Alberta and the Alberta Biodiversity Monitoring Institute Caribou Monitoring Unit to co-ordinate restoration in priority areas, find new ways to improve biodiversity understanding, and restore habitat throughout northeast Alberta. These efforts all play a role in caribou recovery.

Land conservation

We value multi-stakeholder approaches to address industry impacts on the environment.

We have partnered with the Alberta Conservation Association for nearly 20 years through the Boreal Habitat Conservation Initiative to help secure more than 4,000 hectares of ecologically sensitive land across 43 different conservation sites in Alberta. As voluntary offsets, these areas of intact boreal forest and wetlands have served to preserve biodiversity by ensuring the components of the larger boreal forest ecosystem have remained undisturbed.

Protecting Pacific marine habitats

Suncor relinquished three legacy exploration permits off the coast of British Columbia in 2022. These licences, which cover an area about two-thirds the size of Vancouver Island, overlap with two sensitive marine habitats. Both contain diverse marine ecosystems that include the highest concentration of breeding seabirds on Canada's Pacific Coast and the largest living example of glass sponge reefs in the world. Scientists thought the reefs had been extinct for more than 40 million years before their discovery in 1984. "Surrendering these licences aligns with our values as a company and is something that everyone at Suncor can be extremely proud of," explains Ken Saunders, Vice President, Engineering & Geoscience. Learn more [here](#).



Keeping wildlife at a safe distance from our operations isn't easy, especially since none of our employees have wings. That's where the falcons trained by Predator Bird Services come in handy. They prevent ravens from roosting at our plants in the Wood Buffalo region. Learn more [here](#).



Coyote captured on MacKay River site wildlife camera.



Social

- > Safety
- > Health and wellness
- > Workforce
- > Inclusion and diversity
- > Indigenous relations
- > Social investment
- > Human rights

We're working hard to create a safe and inclusive work environment while building and maintaining relationships with local communities, Indigenous Peoples and stakeholders.



Safety

Safety above all else.

The importance of safety is reflected in the steps we have taken to address our performance.

Fatalities occurred at our Base Plant site on January 6 and July 7, 2022. The first incident happened when a heavy haul truck rear-ended another heavy haul truck while they were both driving up a mine ramp. The second involved a falling piece of equipment from a crane striking a technician who was performing scheduled maintenance activities on a mining shovel.

We know we must do better. We are committed to the well-being of everybody who sets foot on our sites, whether they are visitors, contractors or employees. It's important to build a culture where people can confidently raise concerns, report hazards and encourage each other to be safety leaders.

We have taken clear steps to address our performance.

We diagnosed gaps to understand where we could improve through a 2021 assessment led by third-party safety experts, where we benchmarked global best practices with an emphasis on mining.

We applied those findings to bolster our leadership capacity and capability. We also increased the weighting for safety for our annual incentive in 2023.

We are executing a clear and accelerated plan to improve our safety performance. It emphasizes these key areas and is aligned with our Operational Excellence Management System:

- strengthening operational risk management, including ensuring appropriate mitigations are in place to fail safely
- creating leadership capacity and engaging with frontline workers
- learning with purpose
- improving contractor management
- adopting technologies to prevent incidents.

We're fully committed to improving our safety performance and ensuring all our workers go home safely every day.

Human and Organizational Performance principles

We have begun integrating Human and Organizational Performance (HOP) principles in our approach to managing safety. We introduced this philosophy, which has been recently adopted by major international companies, to our mines in 2021. We have scaled this to the rest of our organization in the fall of 2022. HOP helps us to understand how humans perform and gives us a framework for building a more robust, resilient organization that can fail safely when inevitable errors occur.

The five HOP principles



People make mistakes

Although error is not desirable, this is simply an acknowledgement that errors are inevitable and normal.



Learning is vital

If we don't learn about the conditions in which work is happening, we don't change them, and we spend time fixing the wrong things.



Response matters

Leaders need to understand that how they respond matters. Leaders need to actively manage their response to failure in ways that enable learning and growth.



Blame fixes nothing

People involved in incidents play an important role in the process of learning from those incidents. Shifting our culture from blame to accountability will enable better learning and create better outcomes.



Context drives behaviour

Empathy and curiosity help us understand the reasons why people make decisions. By understanding why people do what they do, we can improve the conditions that may lead someone else to make the same mistake in the future.

Safety

Applying HOP principles is a critical step in building a culture grounded in trust and engagement. This will drive a safety culture change that:

- has visible leaders who engage more with our frontline workforce to hear their solutions to complex safety challenges and design systems to mitigate serious harm when incidents do occur
- simplifies the safety procedures, documents, roles and activities that exist on the ground and online
- builds field leadership capability and capacity so our frontline leaders have the tools, training, resources and time needed to drive safe and reliable operations.

Operational excellence

The Operational Excellence Management System (OEMS) ensures we use standardized processes, data and tools to reduce risk, simplify work and improve performance. It promotes:

- systematic management of operational risk
- achievement of our operational objectives
- prevention and mitigation of adverse environmental and social impacts
- development and sharing of best practices.

We restructured the senior leadership team in 2021 to increase operational experience at the executive level and created a centralized Operational Risk Management (ORM) organization. These moves strengthened operational excellence and safety performance and are aligned with global best practices.

The ORM team has increased the support of our OEMS, including risk management support by consolidating key services into one function. These changes will improve our performance by providing operations with the necessary support, processes and tools to effectively identify and manage risk.

We have started the rollout of the Operational Excellence Leadership Experience at all leadership levels in operations. This program is focused on how to lead and create a culture of operational excellence. It is designed to cascade right to the frontline workers in our organization.

Contractor management

Contractors perform a lot of critical work at our operations. We have a process in place to pre-qualify contractor companies to ensure they can safely execute work on our sites. We are examining ways to improve that qualification process.

We have shared with contractors the safety tools used with our employees. These include toolbox talks that provide safety messages and information for frontline workers, findings from incident investigations and other documentation and programs.

We have also started a process called “risk levelling” for contractors to assess what is required for specific projects or activities performed by their workers through a job hazard analysis. If there is an elevated level of risk, they must complete specific safety plans to perform that work.



Rewriting to improve safety

Aaron Gordon deals with a lot of forms and paperwork as a Process Operator at Base Plant’s Steepbank Extraction facility. So when he was asked to help rewrite the Field Level Hazard Assessment, a key safety tool to help him and other workers in his area recognize potential hazards while they are working, Aaron jumped at the chance. “People were willing to give feedback because it was driven by their peers on the front line rather than having upper management roll something out without getting input from frontline workers,” he says. “And having this assessment document makes me feel safer when I go to work. I know people working in my area are identifying the potentially serious hazards because they are having to think about them, not completing a box-checking exercise.” Read more [here](#).



... having this assessment document makes me feel safer when I go to work.

Aaron Gordon
Process Operator

Safety

Operational controls

We're identifying and maximizing opportunities for safe work practices and procedures across the organization. We conduct audits and management reviews to ensure our practices are effective. This includes using technology for operational controls, such as electronic permitting systems at many of our sites. Frontline workers help create these new systems as we seek additional opportunities for standardizing how we work that will include input of those workers.

Emergency management

Effective emergency management protects people, property and the environment. All our assets follow the principles of the international Incident Command System. This global system provides a standardized enterprise-wide approach to improve effectiveness and efficiency when responding to an incident. It also aligns our practices to those of our governments, regulators and peers. Our operating sites follow a schedule of tabletop and field-based emergency drills.

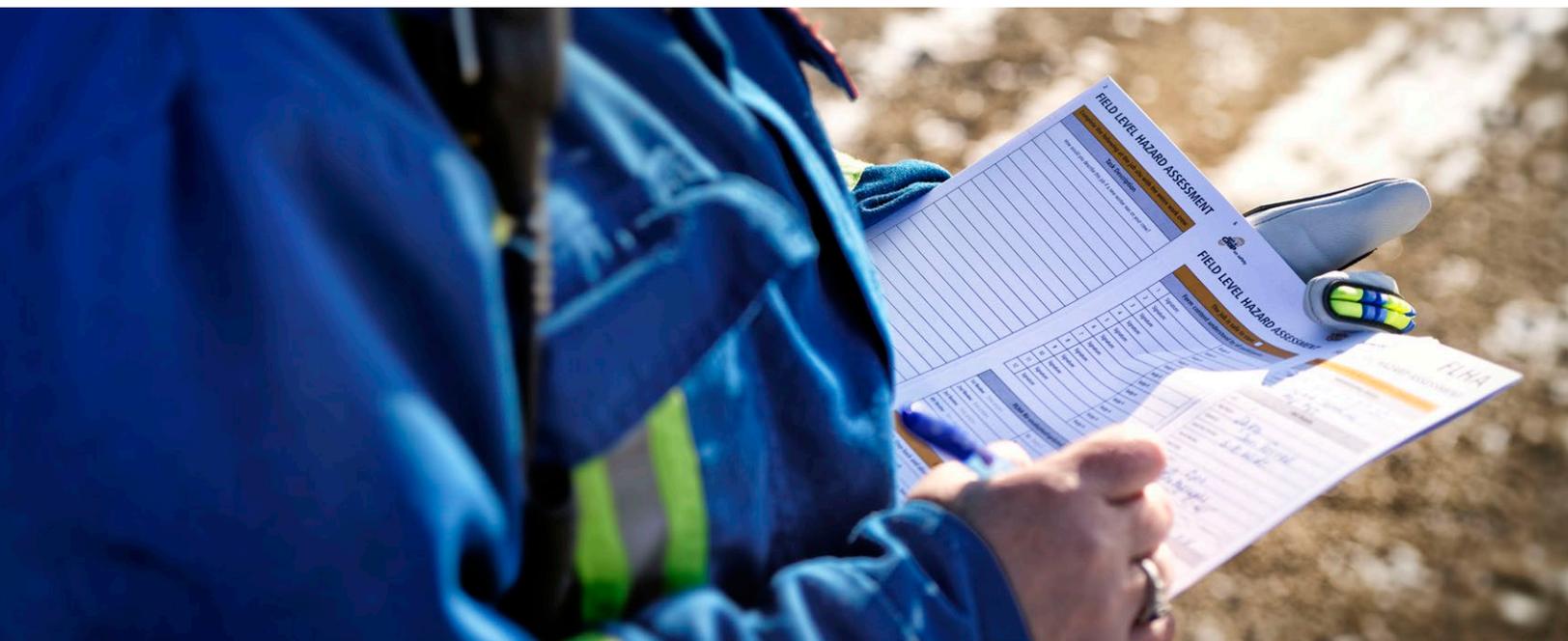
Ensuring alertness at the wheel

Fatigue is a normal part of our lives. For haul truck operators, managing fatigue plays a crucial role in workplace safety. Suncor has tested the Driver Safety System, an in-cab technology with a camera that monitors the operator's facial and eye movements through a 24-point scan. The system is activated by a micro-sleep or distraction event and alerts the operator through an audio alarm and seat vibration. After a successful pilot, we've started installing this system on our haul truck fleet at Base Plant. This system will be fully implemented at all Suncor mine sites. Read more [here](#).



A "game changer" for safety

Jason Mercer has operated heavy equipment in mines for more than two decades, with the last 17 years at the Aurora mine, about 75 kilometres northeast of Fort McMurray. And he sees the collision awareness system as a "game changer" for safety. "Given the size of the equipment, some of the tasks we perform and the operating conditions, this new system is, by far, one of the best things I've seen during my time in mining," says Jason, a frontline leader who now coaches operators at the mine. Suncor will install the system on more than 1,000 pieces of mining equipment and vehicles. This system will be fully implemented at all Suncor mine sites. Read more [here](#).



Safety

Training

More than 95,000 hours in 2022 were spent on environment, health and safety training across the organization. This includes self-directed, instructor-led classroom and on-the-job training, in addition to peer-delivered training.

More than 5,000 hours of formal simulator-facilitated training was delivered to approximately 165 control room operators.

Mobile equipment and mine simulators also provide regular training practice to frontline mine workers.

Health and safety performance

Serious Injury and Fatality (SIF)

We are focused on eliminating fatalities and serious injuries. Increasing the visibility of SIF exposures allows us to identify and address their precursors. It encourages learning and improved safety performance across our operations. We tragically experienced four SIF events in 2022, two fatalities and two serious life-altering injuries. We expect enhanced guidelines and a targeted focus on critical controls to identify and reduce SIF incident risks.

We have also strengthened the alignment of our incentive compensation plans by doubling the weighting related to safety performance.

Recordable Injury Frequency (RIF)

Suncor operating sites recorded a full-year RIF of 0.37 in 2022. Suncor has maintained a low RIF trend for the last five years with an 8% decrease since 2018. As we learn from these events, we continue to focus on injury prevention and determining root causes.

Lost Time Injury Frequency (LTIF)

Our LTIF has remained stable over the past five years. Similar to RIF, the main causes of injury continue to be slips, trips and falls, and "line of fire" (being in the path of a moving object, release of energy or hazardous substance). Programs have been implemented to address these safety issues and include enhanced awareness of safety processes, personal protective equipment and identifying hazards before starting activities. An example of this is the mandatory use of traction aids for icy and/or slippery conditions.

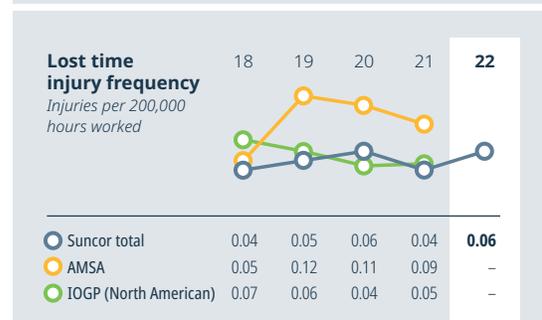
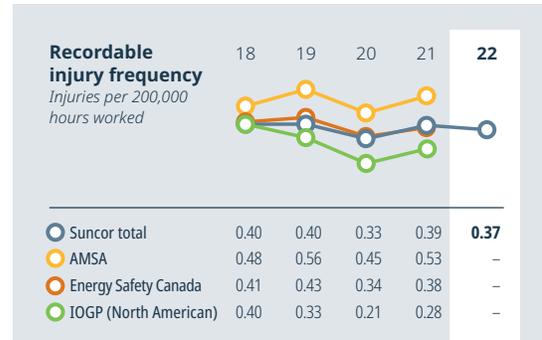
Process safety and loss of primary containment incidents

In 2022, our loss of primary containment (LOPC) events increased due to cold weather-related incidents that occurred in the first and fourth quarters. To reduce the likelihood of these events, we are focusing on strengthening our operational controls related to winterization.

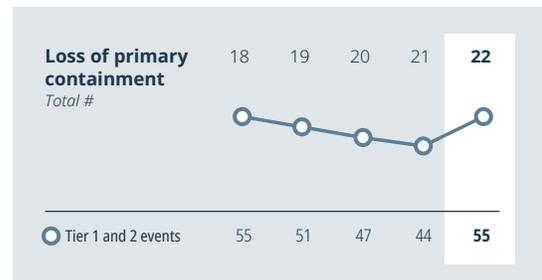
We are also making progress in our application of critical process safety programs. This includes identifying instrumented safeguards; implementing and stewarding maintenance programs to achieve the required level of risk mitigation; and monitoring and reporting impacts to our operating parameters. Our ongoing focus on process hazard analysis and management of change ensures we keep an objective eye on reducing risks in our operating areas. We continue to implement new digital technologies across the enterprise to improve safety, productivity and reliability, and to reduce costs.



For additional information about this chart and its data, please refer to performance data footnote #12. Due to methodology differences, Syncrude SIF events are only included in the Suncor total starting in 2021 to align with operational control. Methodologies are being assessed for future alignment and reporting.



Alberta Mine Safety Association (AMSA), International Association of Oil & Gas Producers (IOGP) and Energy Safety Canada safety data is used for benchmarking purposes, and is based on the most recent and best available data sets. For additional information about this chart and its data, please refer to performance data footnote #12.



Not all LOPC incidents are environmental in nature, but they are all related to process safety. For additional information about this chart and its data, please refer to performance data footnote #12.

Health and wellness

Our people’s safety and well-being are of the utmost importance.

We are building a culture that reflects our values and is grounded in trust and inclusion. This allows our employees to be their best and contribute their best every day in the workplace, at home and within their communities. We take a holistic approach to wellness by understanding the interconnected four elements of well-being – social, psychological, financial and physical – and their effect on overall health. We strive to foster a resilient and thriving workplace where we take care of each other and people feel safe and supported.

A focus on psychological safety and employee well-being

Foundational safety principles, such as mind on task, can only be achieved when we are healthy and well, both physically and mentally. We continue to evaluate the needs of our team and provide support to focus on overall well-being, including psychological well-being. Indicators of psychological well-being include a person’s level of happiness, life satisfaction, contribution and positive mental health. These are critical components of being fit for duty. Those struggling with mental health issues can experience cognitive and physical fatigue. This could impair decision-making, decrease reaction time and attention to detail, resulting in injury.

4 pillars of well-being



Health and wellness

Mental Health 101

Even during the darkest days of the COVID-19 pandemic, Iordanka Petzanova saw a silver lining. “There was an increased awareness about mental health issues and the need to address them in the workplace. And the data was showing the highest instances of disability claims for mental health were occurring in our frontline workers and leaders at Base Plant,” says Iordanka, Suncor’s Mental Health Specialist. She created a training package for frontline leaders at Base Plant to recognize warning signs for people struggling with their mental health, how to have conversations about the topic and how to use Suncor’s health and wellness resources. More than 55% of leaders at Base Plant have completed the training. Suncor is now in the process of expanding the training to the rest of its operations. Industry peers have also expressed interest in the content.

Resources and support

Resources are available year-round, including counselling support, to help people manage their mental health and work safely. These tools and resources empower leaders and individuals to take responsibility for well-being and embed that mindset across the organization.

Our training programs and resources aim to promote a psychologically safe environment and break the stigma around mental health issues. One example is the Mindfulness web-based program, launched in 2020. The program has 10 modules relating to mental health and is designed to help people focus attention, emotions and sensations in the present, while creating a psychologically safe and inclusive space for all. The program is available to employees, their families and contractors.

We also support workers and their families through the Employee and Family Assistance Program (EFAP). EFAP is accessible 24 hours a day, and includes clinical counselling, work-health-life services, professional advice and a learning portal. Counselling services and the portal are available in English and French.

A café with well-being on the menu

Whether you prefer Starbucks, Tim Horton’s or an independent coffeehouse, many of us use those venues to connect with friends and catch up on their lives. That was the inspiration for the Well-Being Café, a virtual equivalent for Suncor workers. “It started as Feel-Good Fridays, where we could connect virtually and informally, as if you were at a café having a conversation with a friend,” says Jen Huebner, Suncor’s Well-being Advisor. “The most important thing is they were interactive, whether you posted in the chat or shared directly during the 45 minutes.” Those weekly sessions have evolved into the Well-Being Café, where different subject matter experts give a short presentation on different areas of well-being. “There’s a wide range of topics because we cover all four pillars of well-being – physical, psychological, social and financial. One week, it might be something on benefits. Another week, it could be on our SunCares program for employee volunteers.” The sessions are recorded and edited so field workers have access to presentations in toolbox talks and other non-wired venues. “Well-being is important wherever you work.”



Ergonomics

“Whether you work at home, in the mine or in the field, your main tool is your body. You need to look after it. Most of us don’t know our strengths and limitations,” says Suncor’s Ergonomist and Human Factors Specialist Danielle Lemay. “When you better understand this, you can better use it and listen to it.” Danielle joined Suncor four years ago and is developing governance to better manage ergonomics and human factor-related hazards in the workplace with the aim of preventing musculoskeletal injuries. This will include ergonomics training and assessments for office and field workers. “No matter where you work, we want to make sure you are healthy and safe.”

Workforce

A safe, talented, productive and engaged workforce is key to our success. The ongoing care of and for our people at all levels of the organization will enable us to be a high-performing organization.

Workforce changes

Suncor has undergone changes to its workforce in recent years to improve efficiencies and our overall cost structure. We will continue to monitor our organizational model and total cost of workforce to achieve efficiency and effectiveness.

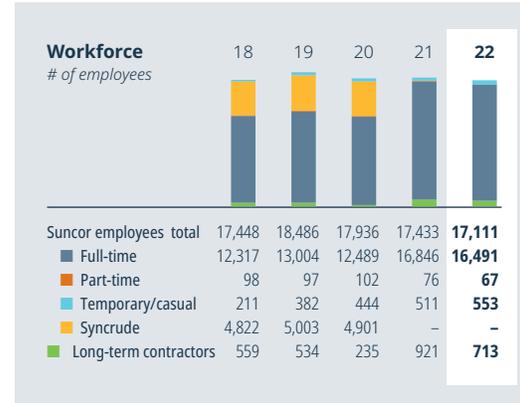
Recruitment and development

While we're working to develop the team we need today, we're also planning for future workforce needs. We use integrated workforce planning to identify the skills and capabilities we need across the organization. We hire locally where possible. This work allows us to strategize for and recruit the right balance of early talent, mid-career employees and senior contributors, ensuring our workforce meets our strategic needs now and in the future. We continue to monitor economic conditions to understand the labour market.

To build the skills and knowledge needed for careers in trades and operations, we partner with community and non-profit organizations as well as post-secondary institutions that offer training for our workforce. We also offer opportunities to students through internships, co-op terms and an Indigenous Student Program.

Hiring local

Suncor rolled out a new program to hire and train heavy equipment operators (HEOs) in the Wood Buffalo region. A growing shortage of temporary HEOs demonstrated we needed a new program to address a critical skill. We partnered with Keyano College to train haul truck operators and attract people committed to the region and Suncor. The Family Referral Program encourages employees to refer their immediate family members to work as a HEO at Base Plant. We launched a program for Indigenous communities within the region seeking members to work as HEOs. Candidates were pre-screened and received training at Keyano. The program addresses our business needs while fostering relationships with Indigenous communities and promotes belonging, inclusion and diversity.



For additional information about our total workforce value, which does not include long-term contractors, please see the performance data section in the appendix, and for more information about this chart and its data, please refer to performance data footnote #13.

“
I'm proud of the way we connect people with the right opportunities to reach their potential and help us achieve our goals. This is an amazing place to build a meaningful career. [Learn more here.](#)

Christina Healy
Senior Talent Advisor, Talent & Culture,
Human Resources



Workforce

Training, rewards and retention

Our training and development function drives the value of learning and world-class performance by assuring competence and the capability to perform. A blend of online, classroom, virtual instructor-led courses and on-the-job training programs help develop and sustain necessary capabilities and behaviours to support our values of safety above all else and operational discipline. A variety of required and personal development courses and programs consistently drive our value of curiosity and lifelong learning. We also have a rigorous competence assurance structure that provides risk mitigation for safe and reliable operations through the support of strategic initiatives.

We have established an internal sustainability learning site for every employee to further their knowledge and understanding of sustainability content and concepts. This on-demand sustainability learning resource increases the collective competency of our employees and improves decision-making across the organization.

In 2022, employees participated in 305,000 hours of training and development, averaging 24 hours per full-time equivalent employee. The investment in these training and development programs was \$18.9 million.

Being purpose-driven and a leading energy company are key elements of our employee value proposition. With a comprehensive rewards package and diverse career opportunities, we attract, recruit and retain some of the most capable individuals in the industry. Our total rewards approach for employees is robust and includes competitive compensation, health and insurance benefits, career development, pensions and savings plans. Additional programs are also designed to enhance the quality of life for employees and their families such as time-off programs; the employee and family assistance program; scholarships for dependent children; and volunteer programs.

Suncor responded to the evolving needs of employees around work and life balance and flexibility by introducing new guidelines for the workplace. The Hybrid Work Guidance, introduced in 2021, gives office-based employees the flexibility to work from home up to two days per week. We also introduced the Flexible Dress Code Guideline, a new standard for office dress that reflects the organization's trust and respect for the diversity and professionalism of employees. Suncor is learning from valuable employee feedback and continues to ensure alignment of these guidelines with business needs, goals and values.



Coaching leadership

When Chris Mooney started as an equipment operator at Mildred Lake in 1985, he never foresaw himself discussing applied behavioural science for leaders, let alone teaching it. "It shows how much we've changed when it comes to helping our leaders as an organization," says Chris, who heads up an innovative coaching program to improve skills for leaders at different levels of the organization. "This program has trained field coaches who shadow leaders for 14 months. They watch them in meetings and follow them on field tours. The coaches act as a fly on the wall and give them real-time feedback. There's a lot of focus on soft skills, particularly on having tricky conversations. A good example would be how to intervene when you see an unsafe work practice or behaviour." The program is being expanded due to its success, which gratifies Chris. "When we work with our leaders, we grow with them. Twelve of 22 people in the program have returned to the organization in elevated positions. When I look back at my own career, especially starting out as a 19-year-old kid, I was too intimidated to bring up a concern if I didn't feel safe. When I see the environment that we're creating today, it's just so much better. Workers can feel confident having those conversations because of how we are helping leaders."

Photo: Chris (left) and an operational leader having a coaching and skills development conversation.

Parent Leave Top-up Plan

Growing your family can be both an exciting and stressful time. As a parent, you balance work with making the best decisions for your family, including which parent takes time off to be there with your new baby. Suncor introduced the Parent Leave Top-up Plan in 2021 for our Canadian employees. It recognizes both birth and adoptive families and provides a top-up payment at 65% of annual base salary/wage to an employee taking parental leave, and in receipt of government benefits, for up to 20 weeks. If both parents are Suncor employees and share their parental leave, an additional top-up of up to five weeks is available to the second parent.

Inclusion and diversity

We are building a culture of performance based on trust and inclusion.

We want to create a work environment where everyone can meaningfully contribute while feeling safe, valued and respected. A trust-based and inclusive culture with a diverse workforce will improve our performance and achieve social responsibilities. Suncor's inclusion and diversity strategy has four priorities:

- leadership
- employee education and involvement
- people, programs and processes
- Indigenous workforce development.

Leadership

Ongoing development activities ensure leaders at all levels understand our expectations about inclusion and diversity and possess the necessary competencies to foster an inclusive environment.

Leadership teams also use insights from our internal surveys with employees and diversity metrics to work with their business areas to create inclusive, fair and respectful environments.

Employee education and involvement

Many formal and informal learning opportunities are available to employees throughout the year. These include company-wide inclusion events; story-telling videos shared at events and meetings; lunch and learns and panel discussions; and programs covering topics such as unconscious bias, inclusive leadership and Indigenous cultural awareness. One type of event led by Suncor's Culture, Inclusion and Diversity Council, made up of senior leaders, is the *Action for Inclusion: A conversation series*. This quarterly event covers a variety of inclusion and diversity (I&D) themes to bring people together. In 2022, one of the sessions focused on the role of data transparency in advancing inclusion, diversity and equity in our organization. It also highlighted the I&D metrics we monitor and how they are used to inform our strategy and business area commitments. Our data was presented at the enterprise level to share key insights and talk about how employees can help us advance in our I&D journey.

Our *Inclusion Starts With Me* web-based training program highlights the importance of an inclusive and diverse workplace and how each of us can contribute to a great workplace for everyone. Almost 1,400 employees have completed the training since it launched in 2021. A *Diversity, Inclusion and Belonging* training course is also available to employees and contractors.



Suncor's employee inclusion networks and resource groups



enABLE

Enables persons with disabilities and allies to learn, connect and take action.



JOURNEYS

Supports Indigenous inclusion, and creates a safe and supportive workplace culture for Indigenous employees.



MOSAIC

Resource group for Black, people of colour and allies to positively influence Suncor's people and culture journey.

PRISM
LGBTQ2S+

Shares learnings and creates a safe space for people who are part of the 2SLGBTQ+ community, or who are allies.

W I N

Workplace Inclusion Network focused on cultivating an inclusive work culture that values diversity throughout Suncor and its operations.



WOMEN
ENGAGE

Creates a more inclusive environment for women by connecting, learning and influencing.

Inclusion and diversity



Marching with Pride

It was a march four years in the making. Suncor was invited to participate in the Calgary Pride Parade for the first time in June 2022. And the time was right for PRISM, Suncor’s 2SLGBTQ+ Employee Inclusion Network. “We had an informal coffee group that started for 2SLGBTQ+ employees more than three years ago and somebody approached us very excitedly and asked, ‘Wouldn’t it be great if Suncor marched in the Pride Parade?’ And we said, ‘No, it wouldn’t. You need to do more for us as an organization, make it easier for this community, before you go external with an event like the Pride Parade,’” says Steph Hansen, a Senior Business Process Advisor and co-chair of PRISM. “And that is what happened over the past three years. There are policies in place that make it easier and more accepting for our community. There’s been a real cultural shift within Suncor so it was the right time. You cannot fake this. You need to be authentic.” You can read more about Steph’s story [here](#).

Suncor’s Employee Inclusion Networks are established by and for people with shared characteristics, ethnicities, interests or life experiences, and those interested in supporting or learning more about ways to build an inclusive workplace. The networks build a sense of belonging and community among members. They help inform the I&D strategy for the company, foster learning and build allyship. They also contribute to our ability to recruit and retain a diverse workforce. Two networks launched in 2022. MOSAIC is a network representing Blacks, people of colour and allies. EnABLE is a network for persons with disabilities and allies.

People, programs and processes

Suncor develops programs, policies and practices for fair and equitable access to opportunity, development, recognition and advancement. Our [Equal Opportunity and Inclusion Policy](#) and supporting [Respectful Workplace Standard](#) outline our commitments to eliminating discrimination; celebrating and supporting the unique experiences and voices of our employees; and undertaking special efforts to attract diverse workers.

Coming out

For as long as she can remember, Rachel Elser wanted to identify as female. “As an adult, I finally found the courage to identify as transgender and transition socially,” says Rachel, a Project Operations Lead at Mildred Lake. “I needed tools and information to establish myself both personally and professionally.” The lessons learned by Rachel and others led to Suncor releasing a guidebook for employees undergoing gender transition and their leaders to

help support them. It provides education on gender transition and terminology, guidance on inclusive language and best practices for employees, leaders and peers. It was released on October 11 to coincide with National Coming Out Day. “It has been a privilege to share my experiences and work with other employees to improve inclusion and diversity at Suncor as well as participate in the development of the guidebook.” Read more about Rachel’s story [here](#).

Inclusion and diversity

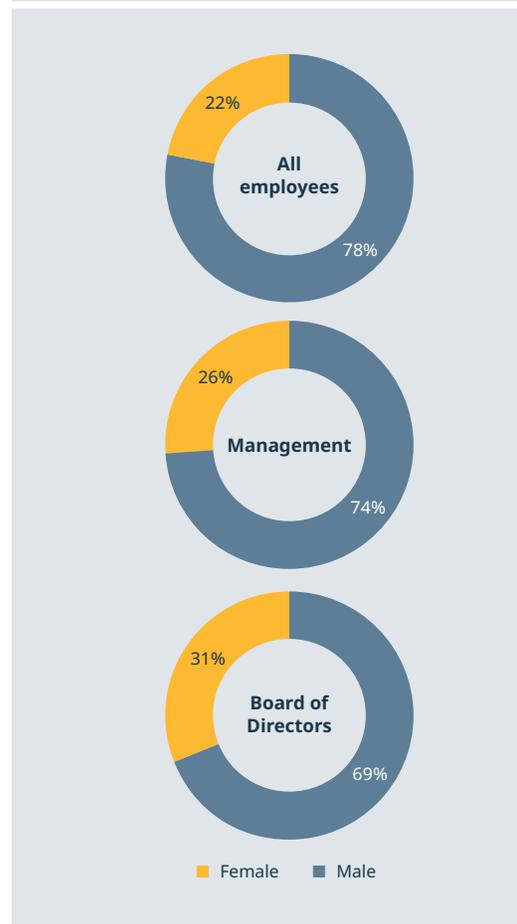
Workforce representation

We believe our workforce should reflect the communities where we operate. Suncor's Indigenous representation is 5.4% and we have set a goal to increase this further. We created a team to implement our Indigenous Workforce Development Strategy towards meeting this goal. The strategy has four key pillars:

- building and maintaining relationships and partnerships with Indigenous communities and organizations
- building capacity and training for employment
- providing direct and indirect employment
- building an inclusive workplace with opportunities for career advancement to retain Indigenous employees.

Suncor workforce representation of visible minorities and persons with disabilities has slightly decreased over the last two years. This is due to the workforce integration of Syncrude, which did not have established processes to formally track this data.

Integration and organizational changes have also influenced gender representation for individuals in management roles, with women accounting for 26% and men representing 74%. We held focus groups in 2022 to continue to identify opportunities for improvement.



For additional information about this chart and its data, please refer to performance data footnote #17.



A change in the locker rooms

Lockers are where occupational workers such as Robin Hebbard start and end their shift. "There is a lot of gear we have to wear to protect ourselves, from hardhats to coveralls to steel-toed boots," says the heavy equipment operator at Aurora. But the growing number of female workers at Aurora created locker shortages and congestion in the change room. "Women make up more than 30 per cent of our teams today (at Aurora) thanks to initiatives such as [Women Building Futures](#)," she says. "We had females doubling or even tripling up in a single locker." Switching that locker room with a larger one used by male operators with spare capacity solved the problem. Robin also appreciates the support from male co-workers and leadership to help support the change. "There's a real small-town feel at Aurora, it's like a comfort blanket," she says. "That's a big reason why this is still my dream job." To learn more, read [A change in the locker rooms](#).

Certain operating regions prohibit collecting information on gender; therefore, diversity data may not reflect our entire workforce due to data availability. Workforce diversity is calculated based on information provided voluntarily by employees. Indicators referring to ethnicity and disability reflect only those employees who have voluntarily self-identified.

Indigenous relations

Partnering with Indigenous communities is foundational to successful energy development.

In the spirit of reconciliation, we acknowledge our head office in Calgary or Mohkinstsis is in Treaty 7, the traditional territory of the Blackfoot Confederacy (Siksika, Kainai, Piikani), Stoney Nakoda (Chiniki, Bearspaw, Goodstoney) and Tsuut'ina First Nations, and home to Métis Nation of Alberta, Region 3. We also operate and do business in many Indigenous territories across Turtle Island.

Our approach

We seek to build authentic, meaningful and mutually beneficial relationships with Indigenous Peoples. We have [agreements](#) with a number of Indigenous communities near our operations. These agreements reflect how we work together on a range of matters from project consultation to realizing the benefits of commercial and business opportunities, as well as supporting skills, employment and training programs.

All employees and contractors, as well as our joint venture partners, are responsible for following our policies. Our Chief Executive Officer is accountable to the Board of Directors for ensuring the [Stakeholder Relations](#) and [Indigenous Relations](#) policies are implemented.

We are guided by the reconciliation framework outlined in the United Nations Declaration on the Rights of Indigenous Peoples, and work to apply its principles in our activities involving Indigenous Peoples, their land and resources. We are also informed and guided by the Truth and Reconciliation Commission of Canada and the National Inquiry into Missing and Murdered Indigenous Women and Girls.

We also measure and report our performance against the Mining Association of Canada's Towards Sustainable Mining [Indigenous and Community Relationships Protocol](#).

Progressive Aboriginal Relations certification

One way we measure the effectiveness of our efforts is through the [Canadian Council for Aboriginal Business Progressive Aboriginal Relations \(PAR\) program](#). Suncor and Syncrude have each certified at the gold level multiple times, with Suncor last certifying in 2020 and Syncrude in 2021. A joint recertification will be undertaken in 2024. PAR is Canada's only certification program focused on best practices in Indigenous relations.

Indigenous agreements and partnerships



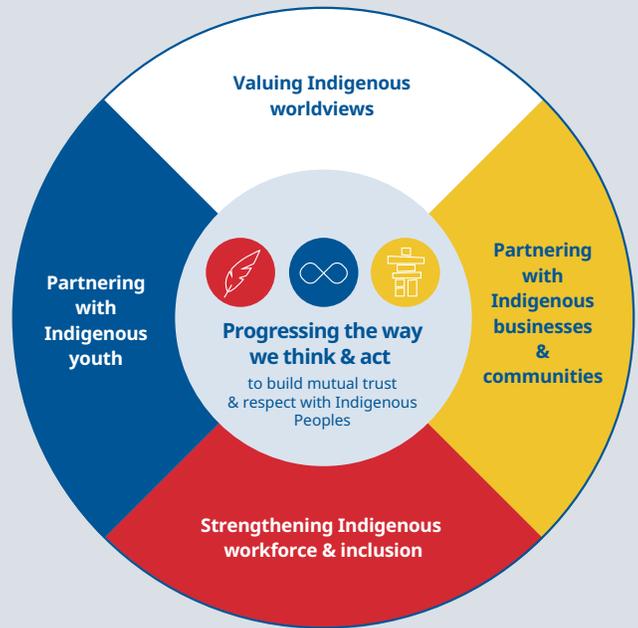
Indigenous relations

Journey of Reconciliation

The Journey of Reconciliation reflects the continued transformation within our organization and in our relationships with Indigenous Peoples. It represents our commitment to learn about Indigenous culture and history with open hearts and minds, to expand our perspectives, and build genuine relationships with Indigenous Peoples based on mutual trust and respect. Through this Journey of Reconciliation, Suncor aspires to progress the way we think and act to learn and better understand Indigenous perspectives and reflect Indigenous knowledge in what we do. We work to recognize the impacts of Suncor’s operations on Indigenous communities and incorporate that knowledge into our business activities.

Reconciliation is critical to healing and deepening relationships with Indigenous Peoples. We are taking an active and meaningful role as outlined by the Truth and Reconciliation Commission call to action #92. We believe it is the right thing to do from a societal and business standpoint. Including Indigenous perspectives brings about innovation and different ways of approaching our work. Building strong relationships with Indigenous communities earns the trust and respect of true partners that helps propel our business and navigate the ever-changing landscape.

The Journey of Reconciliation is fundamental to our purpose. It supports our strategy of becoming a leader in sustainability and the energy transition.



Permission to use this Blackfoot concept of the Medicine Wheel was granted by Elder Casey Eagle Speaker

Valuing Indigenous worldviews

We continue to learn and understand Indigenous ways of knowing and being through training and experiential learning opportunities. We continually work to improve and update our training content to keep it relevant. Our web-based Indigenous Awareness training course is available both internally and to the public on our [website](#).* It will be relaunched in 2023. We also offer employees in-depth training, Canada’s History with Indigenous Peoples, which we updated and relaunched in the latter part of 2022. Advisors on our Indigenous and Community Relations team plan and deliver cultural experiences and learning opportunities for teams.

We’re also working to include Indigenous perspectives and traditional knowledge in our operations where possible. This is supported through advisory groups that include Indigenous Elders and knowledge keepers.



The values represented do not reflect Syncrude data. Work continues to integrate this data.



We are proud to share inspiring stories and celebrate Indigenous Peoples in the areas we operate through *Pathways Magazine*. Syncrude started this publication more than a decade ago to profile the people, communities and initiatives in northeastern Alberta. We are continuing with the publication after assuming operatorship of the Syncrude joint venture project in September 2021. It’s another way that represents our ongoing commitment to the Journey of Reconciliation. You can learn more and read the magazine [here](#).

* Please note that we are changing our language from “Aboriginal” to “Indigenous” after consulting with Indigenous communities and employees. Some references still require updating. Thank you for your patience and understanding as we make these changes.

Indigenous relations



Former National Chief of the Assembly of First Nations Phil Fontaine was at our Calgary office for a conversation about reconciliation and Canada's path forward on the National Day for Truth and Reconciliation. Taking questions from our employees, he shared his insights from his decades of leadership and advocacy for Indigenous communities.

Partnering with Indigenous business and communities

It starts with open and honest relationship building to understand common interests and how we can partner together for mutual benefit. Meaningful participation requires the ability to understand each other's desired outcomes, strengths and limitations.

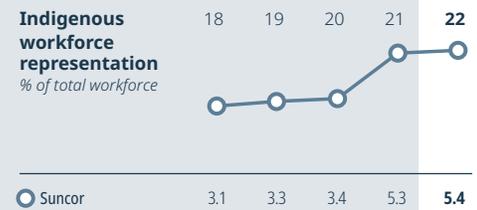
When it comes to our supply chain, our Indigenous Business Participation Strategy supports sourcing activity across the company. Working with local Indigenous businesses provides close and reliable talent and services. It also supports companies to invest revenues back into their communities. In 2022, we spent approximately 27% more with Indigenous suppliers than in 2021. Twenty percent of our overall spending – worth approximately \$3.1 billion – was with Indigenous suppliers. This was achieved by focusing on increased engagement and new relationships with suppliers that were established over the past few years. Doing business with Indigenous suppliers is embedded in our way of working, which is why we no longer set an annual spending target.

Suncor's work with Indigenous communities also remains strong through our Petro-Canada™ business. As of 2022, we have 63 Petro-Canada™ branded retail stations and wholesale marketing arrangements with First Nation and Métis communities. Not only do the retail stations service the community, but, in some instances, they act as a place for community members to gather.

Strengthening Indigenous workforce and inclusion

We want Suncor to be an inclusive and diverse work environment where everyone feels valued and respected. We believe this supports strong business performance, differentiates us in our communities and helps us to attract and retain Indigenous employees who want to build meaningful careers for the long term. Based on data from voluntary self-identification, as of 2022, Suncor has 923 Indigenous employees, which is 5.4% of our workforce.

Journeys, Suncor's Indigenous employee inclusion network, plays an important role in supporting Indigenous employees to feel a sense of safety, pride and belonging within the company. Journeys has been pivotal in creating deep connections between Indigenous and non-Indigenous employees. The network hosts numerous events and cultural experiences



For additional information about this chart and its data, please refer to performance data footnote #17.

The wisdom of Elders

When it comes to reclamation, designing and forming the land underneath plays a critical role. "The closure design has so much influence over what the reclamation will do. If you want Rat Root to grow, you need a wetland. And for that, you need to form a low-lying area with access to water," says Glen Miller, a geotechnical engineer who is responsible for closure designs at Mildred Lake. Glen's recent discussions with the Reclamation Engagement Focus Group, where members from local Indigenous communities provide feedback on reclamation, has changed land formations and design features in Mildred Lake's former East In-Pit mine. "I have learned so much about the importance of wetlands and birds from the community members," Glen says. "I had seen a sand bluff in another area at our site with a V-shaped gully that supported bank swallows so I decided to incorporate it into the design for this area. When we took community members on a field tour in the summer of 2022, an Elder told me it would be better to establish the bluff further north on a south-facing slope if I wanted to attract birds to use it. I changed the design based on that guidance to incorporate their wisdom." Mildred Lake's Sand Placement team, led by bulldozer operator Chad Switzer, ensured the land was formed in time for winter soil placement by the Civil Works team. Glen and the rest of the team are eagerly looking forward to the community members' return to the area in 2023 for planting trees and other vegetation in the area. "We take it very seriously because we value their knowledge."

Indigenous relations

throughout the year, including medicine harvests, sharing circles and Indigenous Awareness Week events, inspiring employees to learn and take actions in reconciliation.

We have a Diversity, Talent and Sourcing Advisor, who manages all skills, employment and training for agreements with Indigenous communities. The advisor also works on initiatives such as training-to-employment programs in areas where we operate, and the Oil Sands Regional Workforce committee, led by the Oil Sands Community Alliance, to take a regional approach focused on mentorship and careers for youth in the Wood Buffalo region. The advisor is a resource to advise leaders and employees on Indigenous culture, protocols and knowledge and co-leads Journeys. Additional resources for Indigenous employees include the Indigenous Employee Mentorship Program, and Indigenous Programs for post-secondary students.

Partnering with Indigenous youth

Indigenous youth and their voices represent the future. The Indigenous Youth Advisory Council (IYAC) works with Suncor, the Suncor Energy Foundation (SEF), our Indigenous and Community Relations team and various senior leaders to listen, share, reflect

and act on issues of mutual interest that are affecting Indigenous communities and the lives of Indigenous youth. It also supports young Indigenous leaders in developing their leadership potential while providing opportunities to participate in the energy system. IYAC further strengthened its relationships with leaders in 2021 through the formation of the IYAC Mentorship Program. The program focuses on reciprocal two-way mentorship between members of the SEF board and IYAC to support one-on-one human connections that are important for strengthening relationships.

Another way we partner with Indigenous youth is through post-secondary institutions across Canada. Since 2019, a member of Suncor's Indigenous and Community Relations team in Sarnia, Ontario, has been part of a Lambton College planning committee designing an Indigenous Outdoor Gathering Space for youth on campus. Indigenous members of the committee oversaw the entire process and provided valuable direction on the purpose and design of the space. Students at the college will use this space for ceremonies, learning and gathering year-round. It will also be a place where Indigenous and non-Indigenous students and members of the community can walk the reconciliation path together. Construction is expected to start in 2023.

A learning legacy

Every time Elissa Whiteknife walks into Elsie Fabian School in Fort McKay, she walks under a giant portrait of her mother. The school bears her name and her presence. "Education was my mother's passion – she was on the Northlands School Board for 26 years – and this school would have made her proud. I love walking into the building and being greeted by my mom's photograph on the wall. It makes my heart full," says Elissa, the Elsie Fabian School parent liaison. "She would have been very pleased to see how the Cree and Dene culture and language are infused into curriculum." The school opened in September 2022 and serves 140 students in the community. "There are Cree and Dene speakers on staff and our lessons for all grade levels are taught in a combination of Dene, Cree and English. Parents were blown away when their kids came home and spoke to them in Dene." The Grade 1 class learned Jingle Bells in Cree for the holiday concert, she adds. There is also a goal that 40% of the school's curriculum be made up of land-based and traditional learning, which includes input from community members. "For example, we have presentations at different grade levels for topics like identifying wildlife," says Elissa, whose two grandchildren attend the school while her daughter works there as an education assistant. "Some students made ribbon skirts and ribbon shirts for one of the option classes.



They helped with sewing those garments, which they can wear to special occasions and ceremonies." The school, which received funding from Syncrude to help with construction, is a fitting tribute for a passionate advocate of learning, Elissa says. "My mom passed away in 2013 and I thought, with everything she has done on this earth, how would she be remembered? She would be very happy with this school as a legacy."

Social investment

Suncor contributes to the communities where we operate by making direct investments to support social, economic and environmental solutions through Suncor, Petro-Canada™ and Syncrude.

This work is supported by the programs of the [Suncor Energy Foundation](#) and the [Petro-Canada CareMakers Foundation™](#). Suncor independently contributed approximately \$40 million in 2022 to community, charitable and non-profit groups.

The Suncor Energy Foundation

The Suncor Energy Foundation (SEF) embodies our purpose of caring for each other and the Earth by working directly with communities seeking solutions to challenges today and for generations ahead. SEF combines community and Suncor strengths to find social, economic and environmental solutions to complex challenges. To bring this work to life, we focus on three interconnected pillars: [strategic funding priorities](#), [social innovation](#) capacity and [community presence](#). SEF increased its donations in these areas to approximately \$18 million in 2022.

Strategic funding priorities

Through SEF's funding priorities, we are learning from and with Indigenous Peoples and others to strengthen community while the world is going through an energy transition. We are collectively experiencing many changes, but we believe Indigenous knowledge and community strengths will help us all adapt.

The Resilience Institute

Laura Lynes began her journey into a new mission and career at the bottom of a glacier deposit about a dozen years ago. "I was overcome with this thought we were not doing enough about climate change. There was a big disconnect between what scientists studying that glacial deposit were seeing and what the rest of us were doing in our everyday lives. I felt moved to do something." That epiphany led to the creation of The Resilience Institute, which works with communities and organizations on adapting to climate change and energy transition. And that work is supported by the Suncor Energy Foundation. "The Foundation's contributions have allowed us to do deeper work with communities faster. One example of where we've put their funding to work is understanding how traditional plants, such as sweetgrass, can sequester carbon to mitigate future climate change, as well as be integrated into landscape planning as an adaptation strategy," she says. Learn more about the Resilience Institute by visiting their [website](#).

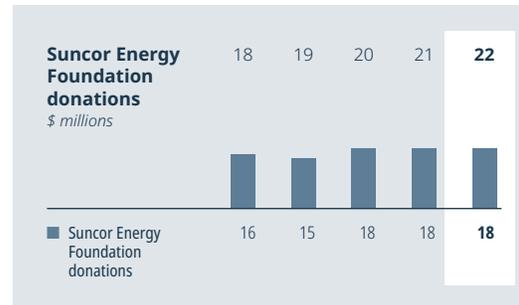
Community presence

Suncor and SEF both invest in local communities where we have operations across Canada and internationally. We also offer employee engagement, volunteering and donation opportunities through the [SunCares program](#). SunCares inspires employees to contribute to communities and support the causes that are important to them.

Through SunCares, almost \$6.2 million was contributed to communities in 2022.



For additional information about this chart and its data, please refer to performance data footnote #16.



For additional information about this chart and its data, please refer to performance data footnote #16.



- 27% employees participated company-wide
- 105,000 hours volunteered by Suncor employees in the community
- 1,700 community organizations supported

Social investment

Syncrude

Syncrude has played a key role for decades in supporting essential community services and initiatives in the Regional Municipality of Wood Buffalo and beyond.

Through Syncrude, \$4.2 million was donated to community organizations in 2022, totalling more than \$44 million since 2015. Whether it is investing in local infrastructure, stocking the food bank or opening the doors to learning, these contributions made a difference in the communities where employees live and work. This also included donations through the Good Neighbours program (employee volunteering and educational matching grants) and support to the United Way.

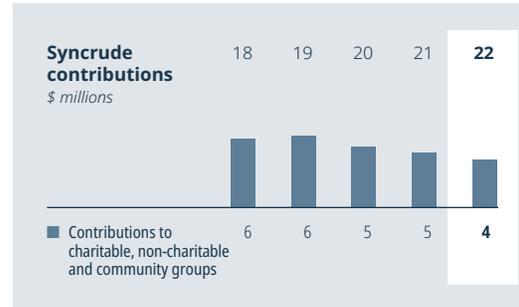
Petro-Canada CareMakers Foundation™

Since introducing the [Petro-Canada CareMakers Foundation™](#) in 2020, we've made a difference in the lives of caregivers who devote their lives to helping loved ones. The CareMakers Foundation™ creates awareness about family caregiving in Canada. We inspire Canadians to help by raising funds for Canadian charitable organizations to provide critical programs and resources for family caregivers.

CareMakers receives contributions from Suncor, the proud owner of Petro-Canada™, as well as other corporate and individual donors. The foundation has awarded more than \$4 million in grants to date, including \$1.7 million in national grants in 2022. It also approved approximately \$0.5 million through local grants across nine provinces last year.

The foundation launched an innovative campaign and website in 2022 called 24 Hours of Care. Visit [24HoursofCare](#) to see the experience of real-life caregivers.

As its profile grows among Canadians, CareMakers continues to demonstrate our purpose and complements our social investment activities.



For additional information about this chart and its data, please refer to performance data footnote #16.



Suncor is recognized as an [Imagine Canada Caring Company](#) for its leadership in community investment.



Supporting caregivers

The Mount Pleasant Neighbourhood House supports family caregivers and those in their care in Vancouver, BC. It's one of the many charitable organizations across Canada supported by financial grants from the Petro-Canada CareMakers Foundation. These funds enable organizations to provide critical programs and resources for caregivers. For Lupita Muñoz, it meant accessing Neighbourhood House's support group as she [navigates her caregiving journey for her husband Warren](#).

Human rights

Suncor is committed to preserving and protecting internationally recognized human rights.

We work to avoid infringing on the rights of individuals and groups. These rights include those set out in the United Nations Declaration on Human Rights and the International Labor Organization Declaration on Fundamental Principles and Rights at Work. Our approach to human rights applies to all our business activities and extends to our business relationships. We are working to align our practices with the United Nations Guiding Principles on Business and Human Rights. We are guided by the reconciliation framework outlined in the United Nations Declaration on the Rights of Indigenous Peoples and work to apply its principles in our activities

involving Indigenous Peoples, their land and resources. We are also informed and guided by the Truth and Reconciliation Commission Calls to Action and the National Inquiry into Missing and Murdered Indigenous Women and Girls. We are committed to implementing these protocols and principles as well as being open to feedback about how our performance can improve.

We have begun updating our [Human Rights policy](#) in response to emerging trends and legislation in this area. We have four focus areas for human rights: supply chain, communities, security and workforce.

Supply chain

Our Supplier Code of Conduct (COC) highlights values important to Suncor. The COC:

- guides the standard of behaviour required of all suppliers, contractors, consultants and other third parties with whom we do business
- addresses topics such as safety, human rights, harassment, bribery and corruption, and confidential information, among others
- reinforces our focus on sustainable development and encourages our business associates to work with us to seek ways to reduce environmental impacts, support the communities in which we operate and collectively achieve economic growth.

Compliance with the COC is a standard requirement for all Suncor supply chain contracts.

[Supplier Code of Conduct](#)

Supplier Qualification

Our supply chain considers human rights in selecting suppliers:

- We updated our pre-qualification and qualification for potential vendors with additional questions related to human rights, specifically related to child and forced labour.
- We conduct technical audits on existing and potential suppliers that incorporate human rights considerations.

Communities

We're developing and maintaining positive, meaningful relationships with stakeholders, communities and Indigenous Peoples by:

- working to positively contribute to the communities where we operate
- working with local Indigenous Peoples, stakeholders and communities to define an appropriate way to:
 - share information
 - consider interests and impacts
 - incorporate feedback, at all stages, in a manner that respects local and traditional decision-making processes
- working to minimize our impact on the environment and recognize its cultural significance to the communities where we operate
- recognizing the unique legal and constitutional rights of Indigenous Peoples, including Treaty rights
- seeking to understand and respect Indigenous Peoples' histories, customs, beliefs and traditions
- continuing on our Journey of Reconciliation to progress the way we think and act to build mutual trust and respect with Indigenous Peoples.

[Canadian Aboriginal Relations Policy*](#)

[Stakeholder Relations Policy](#)

* Suncor has started to transition its language from "Aboriginal" to "Indigenous" based on feedback from employees and Indigenous communities. Some references still require updates, including the Canadian Aboriginal Relations Policy and the Aboriginal Awareness web-based training.

Human rights

Security	Workforce
<p>We respect the human rights of our workforce and nearby communities, while maintaining the safety and security of our personnel, assets and operations:</p> <ul style="list-style-type: none"> • Our security policies and guidelines honour the spirit of international human rights principles and the laws of the jurisdictions where we operate. <p>We adhere to the Voluntary Principles on Security and Human Rights set out in 2000 by a group of companies, governments and NGOs.</p> <p>Corporate Security Policy</p>	<p>We are committed to advancing responsible labour practices. We treat our personnel with respect and dignity. We endeavour to provide an environment free from discrimination, harassment and violence:</p> <ul style="list-style-type: none"> • Our employment policies adhere to all applicable domestic laws, and are consistent with internationally accepted labour standards, regarding freedom of association and collective bargaining, non-discrimination, no use of forced labour and no use of underage workers. This will also include the Government of Canada's proposed Bill S-211, <i>Fighting Against Forced Labour and Child Labour Act</i>, which is expected to come into effect in 2024. <div style="background-color: #e0e0e0; padding: 10px; margin: 10px 0;"> <p>As part of the Towards Sustainable Mining standards, Suncor and Syncrude's mining operations undergo third-party assessments every three years related to preventing child and forced labour. Suncor underwent evaluation in 2022 and was confirmed to have appropriate processes in place. Syncrude will undergo assessment in 2023.</p> </div> <ul style="list-style-type: none"> • We want our workplace to be an inclusive and diverse environment. This includes removing systemic and programmatic barriers to workplace participation and progression so individuals can fully contribute and pursue their potential. For more information on how we do this, please see our inclusion and diversity section on page 42. • We value safety above all else and believe it is everyone's shared responsibility. • We champion the physical, psychological, social and financial well-being of our employees and communities. <p>Equal Opportunity & Inclusion Policy Environment, Health & Safety Policy</p>

Access to remedy

Engaging with communities is an important part of our approach to managing human rights and providing access to rectify, or remedy, a situation. We have region-specific processes and grievance mechanisms in place. Our Stakeholder Information Management System is Suncor's primary database for:

- documenting and reporting on consultation activities, legal requirements and commitments
- recording stakeholder engagement activities to better understand interests and concerns
- supporting institutional memory and other internal processes (e.g., grievances, complaints).

We provide and facilitate access to remedies through the Suncor Integrity Hotline, which is available 24/7 to employees, contractors and the public. All reports are taken seriously and are investigated. More information and a detailed breakdown on the hotline's report themes and reporting volume for 2022 can be found in our Ethics section on [page 54](#).



Governance

- > Ethics
- > Corporate governance
- > Risk management
- > Supply chain

To live Suncor's purpose of providing trusted energy, we embrace long-term thinking and strategies. With sound governance and committed leadership, we have created a strong foundation for resilient and sustainable energy development.



Ethics

Acting with integrity is one of our core values and is embedded in how we conduct business.

Our approach

Our Standards of Business Conduct Code sets out basic rules, standards and behaviours for all employees, contractors, suppliers and our Board of Directors. It addresses topics that centre on ethical decision-making, including conflicts of interest, harassment, bribery, corruption, insider trading, competition, accounting and business controls. For more information on our requirements for suppliers, see our [Supply Chain section](#).

Our Compliance and Ethics Program supports the Code and promotes a culture of integrity within Suncor. This requires ethical conduct and compliance with the law.

Suncor personnel complete annual training about our Code. This includes affirming they've read [The Way We Do Business](#) and have complied with the Code. The Way We Do Business summarizes all of Suncor's policies, guidance and standards that make up the Code.

We encourage people to raise concerns about suspected violations of the Code without fear of reprisal with these teams/departments:

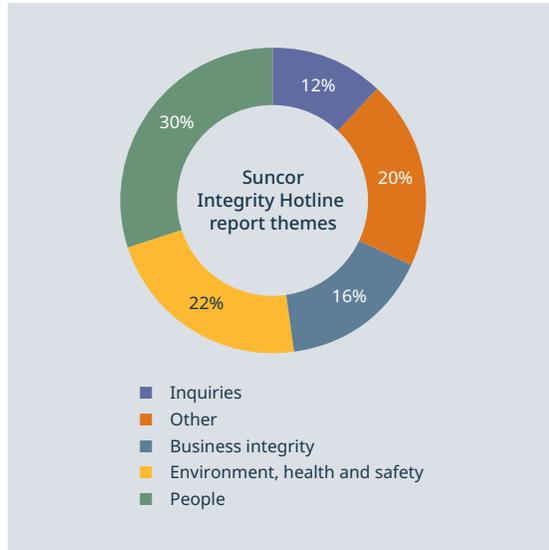
- Management
- Legal – compliance
- Corporate Security
- Human Resources
- Internal Audit.

People may also confidentially raise concerns through Suncor's Integrity Hotline, available 24/7 to employees, contractors and the public. All reports are taken seriously and investigated by our Corporate Security or Human Resources teams. Our report volume reflects a well-functioning hotline reporting system and our efforts to increase hotline awareness throughout the organization.

Our Compliance and Ethics Program is mature and well-established. We monitor best practices and look for opportunities for improvement.

Other key policies that support this program include the [Equal Opportunity and Inclusion Policy](#), which highlights and reinforces Suncor's commitment to providing an equal-opportunity, non-discriminatory and inclusive work environment. Our [Respectful Workplace Standard](#) describes the requirements for supporting an inclusive and respectful work environment at Suncor.

92% of employees completed the Annual Standards of Business Conduct training.



The data represented in these charts reflect the inclusion of Syncrude.

Corporate governance

Sound governance creates a strong foundation for Suncor’s resilience in energy development. Our commitment to robust governance is recognized by the *Globe and Mail’s* annual Board Games, which has ranked Suncor as one of the top energy companies for its governance practices nine years in a row.

Our governance structure includes our Board of Directors and its committees, together with our executive team.

The board’s responsibilities include governance, strategic planning and stewardship of Suncor. This includes identifying and mitigating principal risks, such as carbon risk.

A diverse and experienced board

Suncor’s board includes directors with a range of perspectives, insights and views on the issues affecting the organization. We search for individuals having regard to gender, members of visible minorities, Indigenous status, age, persons with disabilities, business and operational experience, professional expertise, personal skills, stakeholder perspectives, geographic background and other attributes. We have a diverse and experienced board, with Indigenous representation for more than two decades, and 31% female directors.

Environment, social and governance (ESG)

We embed ESG in director recruitment, board evaluation and committee representation. The board’s skills matrix was revised in 2021 to separate “EHS (Environment, Health and Safety) and Social Responsibility” into two skills: “EHS” and “Social Performance”. Descriptions for all skills are available in the [Management Proxy Circular](#).

Executive compensation

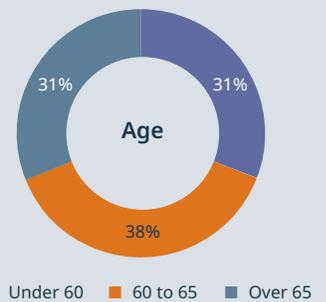
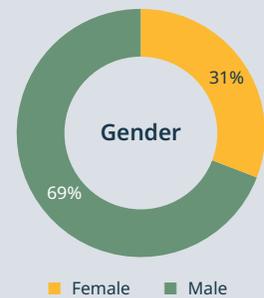
Corporate performance on ESG initiatives affects management remuneration. Climate performance share units were introduced in 2022 to link executive compensation to Suncor’s sustainability performance. Annual awards will vest based on progress towards our 2030 commitment to reduce annual greenhouse gas emissions by 10 megatonnes across our value chain. The program is applicable to people in vice president or higher roles. This is in addition to safety and sustainability measures included in the annual incentive plan.

Suncor’s board considers ESG factors for performance evaluation and compensation by:

- evaluating senior executive performance annually against well-defined goals that support and reinforce our business objectives, including ESG performance
- considering our performance against enterprise-wide sustainability goals related to safety, environmental and social performance, as factors in determining the annual incentive payment amounts for the Chief Executive Officer and the rest of the executive management team
- doubling the weighting on safety in the 2023 annual incentive plan that all executives and salaried employees participate in.

For more information on the board’s skills and demographics see our [2023 Management Proxy Circular](#). This document includes the board’s Inclusion and Diversity policy and targets.

2022 board diversity



Data represented in this chart is as of March 6, 2023 to align with our 2023 Annual Information Form.

Corporate governance

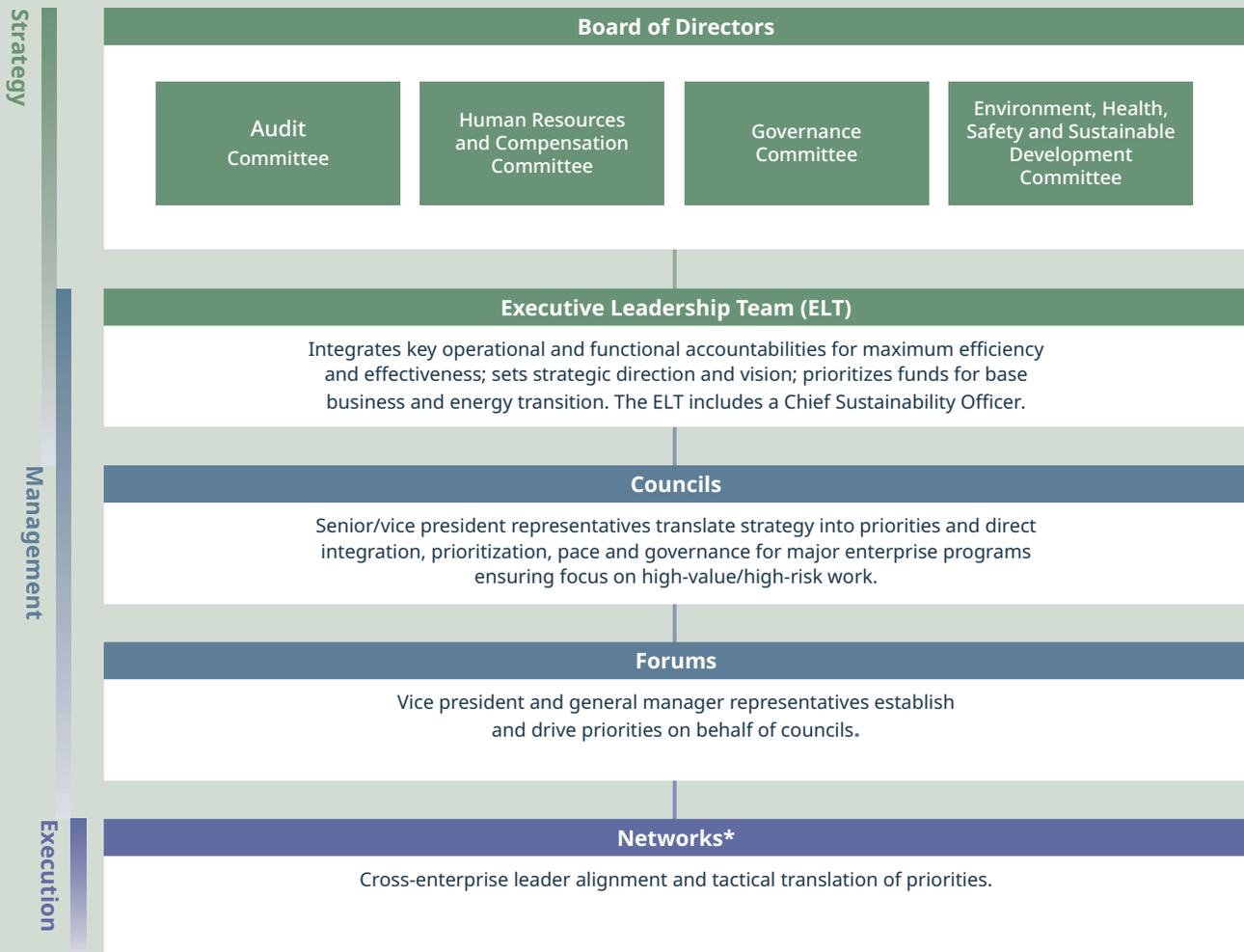
Suncor's governance structure

Our governance starts with our Board of Directors and its committees, which have clearly defined and distinct oversight roles to protect the interests of our shareholders and the best interests of the company as a whole. In addition to our standing committees, from time to time we appoint ad hoc committees to review specific issues on behalf of the Board.

Our executive management team executes governance with key operational and functional accountabilities for maximum efficiency and effectiveness. The executive management team also includes a Chief Sustainability Officer, supporting our 25-plus years of dedication to improving sustainability and increasing transparency and reporting across Suncor.

Environment, Health, Safety and Sustainable Development Committee

The Environment, Health, Safety and Sustainable Development (EHS&SD) Committee oversees matters relating to environmental, health, safety and sustainable development. The committee reviews Suncor's Operational Excellence Management System, an overarching framework to manage operational risk. It selects, monitors and reviews the independence, effectiveness and stewardship reports of the Operations Integrity Audit group. It makes recommendations to the board about Suncor's EHS&SD strategies and policies. The committee is responsible for reviewing management's performance and emerging issues in this space to anticipate future challenges and position the company to



* Networks can support either a forum or a council in those cases where a forum has not been established.

Corporate governance

minimize risks. The committee reviews and makes recommendations to the Board (and to the Human Resources and Compensation Committee for the purposes of executive incentive plans) regarding the safety and environment-related performance goals and to assess whether such goals have been met. Committee members review stewardship reports and the findings of significant environmental, health and safety investigations, assessments and audits, and monitor the adequacy of Suncor's internal controls as they relate to operational risks of its physical assets and matters of environment, health, safety and sustainable development. This committee also reviews annual sustainability and climate disclosure.

Audit Committee

The Audit Committee monitors the effectiveness and integrity of the Corporation's internal controls of Suncor's business processes, including financial and management reporting systems and internal control systems. It also monitors and reviews financial reports and other financial matters, and approves certain delegated financial matters on behalf of the board. In addition, the committee selects, monitors and reviews the independence and effectiveness of external auditors, as well as exercises general oversight over the internal audit function. Suncor's Internal Audit group reports directly to the committee.

Human Resources and Compensation Committee

The Human Resources and Compensation Committee oversees matters relating to executive compensation, incentive plans and talent management. It directs executive compensation and the compensation guidelines that support Suncor's overall business strategic objectives. The committee supports matters related to succession planning for the CEO and executive roles. It oversees any significant incentive, pension and benefits programs for employees. The committee reviews industry, regulatory and compensation governance principles and their possible effect on Suncor's human resources policies and practices. It provides oversight of human capital management, including culture, alignment and employee engagement. It reviews plans and processes for promoting equity, inclusion and diversity.

Governance Committee

The committee oversees matters relating to Suncor's corporate governance practices and principles. The committee assesses and makes recommendations on the board's compensation, structure, composition and processes. It evaluates the board's effectiveness, and facilitates director onboarding as well as the continuing education needs of the directors. It acts as a sounding board for management on key strategic initiatives and reviews and assesses the processes related to long-range planning and budgeting. The committee also reviews matters pertaining to corporate culture, values, beliefs and standards of ethical conduct and any principal risks that have been delegated to the committee for oversight.



Lorraine Mitchelmore

Chair of the Environment, Health, Safety and Sustainable Development Committee

Risk management

Risk management is fundamental to achieving our business goals and requires a culture of operational discipline.

We are governed by our guiding principles for risk management. This requires ongoing identification, assessment, treatment and monitoring of risks inherent to our assets, activities and operations. Some of these risks are common to operations; some are unique to Suncor. Our risk management program is aligned with the International Organization for Standardization guidelines (the ISO 31000 Risk Management – Guidelines), which were also adopted by the Standards Council of Canada. The guidelines provide principles, a framework and a process for managing risk.

Our risk management practice is governed by our risk management policy and supported through processes and tools. These include a risk matrix, an integrated common risk framework and a risk management enterprise database.

Identifying principal risks

Principal risks are those with the potential to materially affect our ability to meet or support our strategic objectives. New risks continue to emerge while established risks could take on new forms or orders of magnitude. We manage identification of new principal risks through our risk processes. These risks are further outlined in our [Management’s Discussion and Analysis](#), and include:



Principal risks

Principal risks related to global climate change

Commodity price
Volatility in price of commodities

Carbon risk
Adapting in a carbon competitive market

Government/regulatory policy risk
Uncertain political, regulatory and policy environment

Market access
Inadequate logistical capacity

Strategic agility
Efficiently and effectively adapt corporate strategy to evolving conditions

Tailings management, dam integrity & mine closure
Disciplined approach to managing fluid tailings

Major operational incident
Effective management of operational hazards

Digital & cybersecurity
Management of privacy and cybersecurity

Cumulative impact & pace of change
Accelerated and high volume of change



Strong risk management means looking at what’s coming at the organization and proactively managing those challenges and opportunities. Suncor’s risk management approach allows us to look at emerging trends and issues and figure out what we need to do before the situation forces us to react.

Gary Millard
Manager, Sustainability Integration

Risk management

Risk governance

Suncor’s Board of Directors and Audit Committee oversee our principal risks and ensure systems are in place to manage their impact. All principal risks are reviewed annually with the board. This includes details on what’s being done to address the risks, how they are being monitored and any changes in the risk profile.

Individual business units and functional teams mitigate and report on critical risks in their areas of business. Risk oversight roles are assigned to manage identified risks. Dedicated risk co-ordinators in each operating business area support this work. Measures are in place to effectively implement and monitor risk management decisions. The overall process is managed and reported out to the board by the Vice President, Enterprise Risk and Audit.

Our [Annual Information Form](#) (dated March 6, 2023) provides a comprehensive overview of significant risks to Suncor and its businesses. We have included carbon risk as a principal risk since 2016. With climate-related risks and opportunities featuring more prominently in our business planning and risk management

activities, all climate- and sustainability-related principal risks undergo an annual review by the board’s Environment, Health, Safety and Sustainable Development Committee.

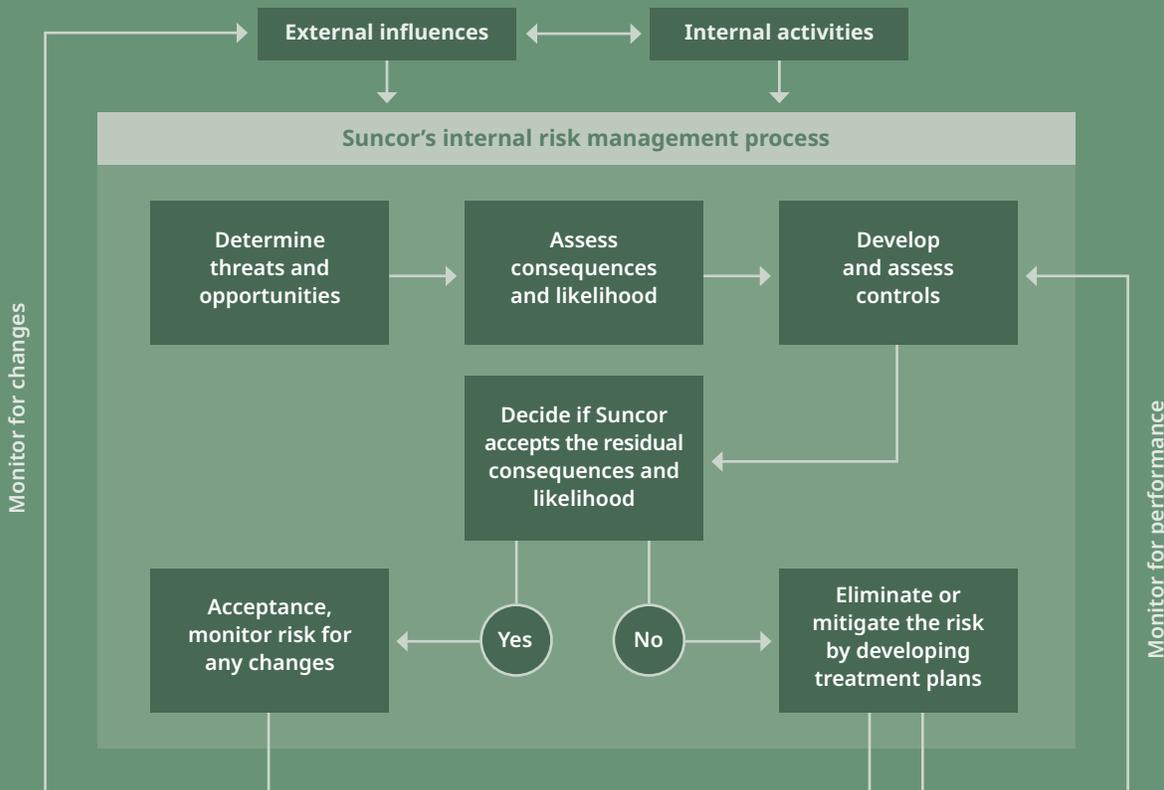
Risk assessment and evaluation

We use a single risk matrix tool to consistently assess risks in terms of magnitude, consequence and likelihood. A single risk matrix aligns the company on terminology and approach. It also helps to assign responsibility for different levels of residual risk. The consequences are based on the following five receptors on the risk matrix:

- health and safety
- environmental
- regulatory
- reputation
- financial impact.

We also use the matrix to provide enhanced guidance on emerging risks and their impact on the business. Examples of emerging risks include cybersecurity relating to supply chain, inflationary pressures and geopolitics.

Risk management process



Risk management

The Enterprise Risk Management Program identifies, assesses and reports on the significant risks to Suncor's business and management's strategies to address risk. The program is overseen by the Board of Directors, which ensures systems are in place to effectively identify, manage and monitor the principal risks of Suncor's business and mitigate their impact. A principal risk is generally considered to be an exposure with the potential to materially impact Suncor's ability to meet or support its strategic objectives.

Strengthening cybersecurity

We use complex systems and interconnected technologies that are crucial to extract, refine and deliver energy products. Our internal Cybersecurity Policy outlines Suncor's commitment to protecting sensitive information and technology assets from potential internal and external cybersecurity threats and inherent vulnerabilities in our business processes, systems and people. A fully dedicated team focuses on intelligence-based threat detection and response, education and awareness, ensuring compliance with regulatory requirements and developing operating procedures to align with industry standards.

Operational Excellence Management System (OEMS)

OEMS is an integral part of our risk management process. Details about OEMS can be found in the Safety section on [page 35](#).

Our ISO 14001- and 9001-certified facilities, primarily our refineries, are subject to verification audits. The internal assessment teams conduct a process-based audit focusing on significant aspects, risks and objectives required by the ISO 14001 standard. Suncor's business units must conduct annual self-assessments against the requirements of the OEMS standard and are also subject to OEMS audits.

A new OEMS dashboard allows leaders to prioritize and make data-informed decisions and improvements based on trends. Standardizing metrics helps us mitigate risk.

Sustainability considerations in project development

Integrating sustainability into project development aims to improve how emerging policy, environmental and social considerations are factored into development decisions. Over time, this promotes organizational understanding of sustainability considerations and competencies, which results in further opportunities for environmental and social performance improvements. It leverages technology and advances the sustainability mindset to drive toward our purpose.

Our project development framework ensures we embed sustainability considerations into planning and decision-making for new projects. We're committed to improving environmental performance, thoughtful collaboration and meaningful stakeholder relationships that underpin our performance. Strategic guidance is further integrated into our investment evaluation process, which includes a focus on environmental, social and governance considerations, and supports our objectives.

Suncor's strategic priorities drive decisions at the portfolio level consistent with project development and execution efforts. Our Asset Development Execution Model ensures collaboration and engagement early in the project development cycle and articulates multi-criteria requirements including:

- early categorization and screening of environmental and social impact risks, as well as opportunities
- differentiating development options based on alignment with strategic priorities and goals, and establishing project-specific sustainability criteria through the concept selection process
- incorporating sustainability risks into the project's risk-management process and identifying related enterprise risks or opportunities
- defining project sustainability performance effects, which inform leadership decision-making
- identifying opportunities for evaluating and deploying new technologies that help us achieve sustainability goals.

Supply chain

We continue to integrate sustainability within our supply chain management and field logistics business.

We are addressing environmental and social effects of our procurement decisions while increasing the value to our business and generating mutual efficiencies with competitive businesses and suppliers. The sustainability focus within our supply chain processes and partnerships demonstrates leadership in environmental and social governance.

We partner with suppliers who share our values and align with our strategic objectives. This means seeking opportunities to reduce environmental impacts, support the communities where we work and live, and collectively contribute to economic growth. We engage with our suppliers on their sustainability performance by:

- assessing sustainability performance as part of pre-qualification, awarding of work and ongoing supplier performance
- gathering data to understand the effects of our supply chain to help us make more informed decisions
- evaluating sustainability risks and opportunities in our supply chain
- building relationships with like-minded suppliers to accelerate innovation and sustainability performance.

Sustainable development approach

All businesses and suppliers must pre-qualify to perform work or to provide services or materials to Suncor by answering a series of questions addressing topics such as safety goals and programs, Indigenous relations/participation, climate change, human rights, inclusion and diversity, social investment and social innovation. Our Supply Chain Qualify and Select Supplier process follows the pre-qualification process and helps inform purchasing decisions.

Suncor’s Contractor Management program governs the process and requirements so all purchased goods meet quality standards while ensuring all services are conducted in a safe, environmentally sound and cost-effective manner.

All suppliers must comply with Suncor’s Supplier Code of Conduct (COC). We are proud to be a leader in the energy sector in this space. We began asking suppliers if they had their own COC in 2021 and if they expected their suppliers to have a similar COC.

Our progress

Our suppliers are located across Canada and in 28 countries. Suncor spent approximately \$15.5 billion with our suppliers in 2022. This represents an 18% increase compared to the previous year, mainly due to expenditures that were deferred during the pandemic.

Working with our suppliers to understand social and environmental impacts

We engage with our key suppliers and industry partners to accelerate innovation and sustainability performance. Suncor and our key suppliers share best practices to achieve continuous improvement in performance on sustainability and safety throughout the value chain. These discussions also contribute to a different way of assessing our suppliers’ service offerings. There is increased awareness within Suncor about opportunities to improve our social and environmental outcomes across our operations. An example would be in inclusion and diversity, where our MOSAIC employee inclusion network, which represents Blacks, people of colour and their allies, joined with Blacks At Microsoft and Calgary Black Chambers to share best practices at an event to kick off Black History Month.

Cutting costs and emissions

Air compressors are important for Atul Patel and his team at an ore preparation unit at Base Plant. Facing ongoing issues of costs and reliability of rental diesel units to supplement the two legacy compressors in the plant, Atul and his team worked with Supply Chain and contractors to find a solution. Replacing the plant’s two legacy units with new compressors decreased costs by several hundred thousand dollars annually in rentals and maintenance. But it also significantly cut greenhouse gas and nitrogen oxide emissions to support Suncor’s sustainability goals. “The big lesson is discovering unknown value when you bring people together to challenge the status quo and find a better way,” Atul says. The success of the initiative has led another ore preparation plant that used rental diesel compressors to replace its legacy compressors, achieving similar savings and emission reductions.

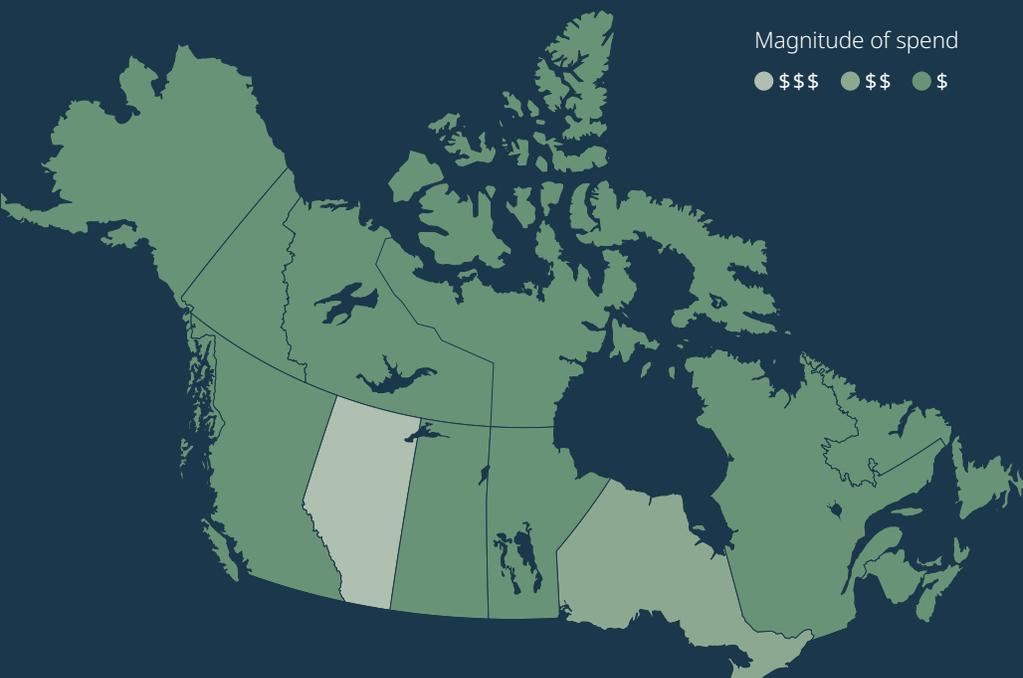
Working with Indigenous suppliers

Indigenous suppliers are a key part of our supply chain. Our Indigenous Business Participation Strategy supports our approach to meeting our commitments and meaningful engagement, while ensuring agreements are mutually beneficial. To advance Indigenous business activities, employees use a self-serve tool to identify current and potential Indigenous suppliers. There is significant rigour around relationship management, annual priority setting and introductory meetings with Indigenous suppliers to discuss new service offerings and opportunities. Additional information on our work with Indigenous businesses and communities can be found on [page 47](#).

Supply chain

We look for ways to involve Indigenous businesses in new and existing procurement opportunities. We've seen substantial growth in our year-over-year spending with businesses that provide cost-competitive services and supplies throughout our operations. Suncor and Syncrude have spent more than \$15 billion combined with Indigenous businesses and suppliers across Canada since the early 1990s. Our overall spending with Indigenous businesses increased by 27% in 2022 to reach \$3.1 billion. Doing business with Indigenous businesses is embedded in our way of working, which is why we no longer set an annual spending target. This approach allows us to maintain our commitments to advance Indigenous business, as well as focus on quality improvements that go beyond spend, such as employment and direct impact to communities. This has happened throughout our organization: for example, spending with Indigenous suppliers has increased fourfold in our downstream operations since 2018.

Supplier spending



	2022
Total supplier spend	\$15.5B
Total Indigenous supplier spend	\$3.1B
Total supplier base	6,636
Indigenous supplier base	132

For additional information about this chart and its data, please refer to performance data footnote #15.



**PROJECT
MÂMAWI | ÎLLA**

Project Mâwawi

Turnarounds – shorthand for planned maintenance – are large, complex events. At the Mildred Lake upgrader, they even get their own name. The annual projects bring in thousands of skilled trades from across Canada. Workers inspect equipment, perform repairs, replace parts, upgrade technologies and restart plants in less than two months. “Our Indigenous and Community Relations team recommended naming the turnaround Mâwawi, which is Cree for ‘together,’ to us. They also made themselves available to speak to our workforce and answered questions about its meaning and other important issues related to Indigenous communities,” says Mike Wheeler, the turnaround event manager. “I’ve learned so much personally that’s helped my understanding about Indigenous issues. It’s helped my own journey of reconciliation.” Project Mâwawi also brings benefits to the wider region with 24 Indigenous-owned vendors supplying goods and services to the turnaround. “About 25 per cent of our total budget for goods and services was with Indigenous-owned suppliers in the Wood Buffalo region,” he says. “They understand the expectations about working safely and reliably. Local firms have skin in the game – these are people who live in our town and region. They care and are committed to Project Mâwawi’s success.”

Appendix

- > [About our report](#)
- > [Glossary](#)
- > [ESG disclosure index](#)
- > [Performance data](#)
- > [Performance data footnotes](#)
- > [Independent practitioner's limited assurance report](#)
- > [Advisories](#)



About our report

Our Report on Sustainability reflects our commitment to continually monitor and assess the impacts and benefits of our business, and effectively share these efforts. We value disclosure as a foundation for engagement and support efforts to drive consistency and comparability of sustainability performance data.

Scope

We present our sustainability priorities and key performance metrics, reflecting consolidated company-wide data only for the assets we have operated for an entire calendar year (unless otherwise stated). More detailed facility and business segment performance, where applicable, is available on [suncor.com](https://www.suncor.com). Five-year performance data (2018-2022) for Suncor-operated facilities, including Syncrude, may be found in our 2023 sustainability performance data document available on [suncor.com](https://www.suncor.com). Facilities that are purchased/sold and subsequently operated by Suncor in the reporting year are not included in reported totals unless owned or operated for the entire year (12 months). Our [2022 Annual Report](#) provides financial performance and information about our business.

Our [2023 Management Proxy Circular](#) provides information regarding our Board of Directors and compensation practices.

Reporting period

Performance data presented in this report reflects our activities from January 1 to December 31, 2022, unless otherwise stated. Where possible (or as appropriate) we've included historical data trends. The 2022 and historic data is available for download on [suncor.com](https://www.suncor.com) for all material Suncor assets. Within the Report on Sustainability, information regarding events or activities from first half of 2023 may also be included. Third party limited assurance is completed by KPMG LLP on select performance indicators for the year-ended December 31, 2022, driven by various reporting frameworks and sector disclosures. All material assets have been included in the performance indicators selected for assurance. Refer to the 2023 Independent practitioner's assurance report on [page 91](#).

Restatements

Historic numbers are sometimes adjusted due to, for example, changes in reporting principles, calculation errors, changes of calculation factors used by authorities, or re-classification of incidents after investigations. We restate historic numbers and explain the changes if the adjustment meets our restatement minimum threshold.

As of the 2023 report, we have updated our reporting methodology to capture total production as the sum of all liquid hydrocarbons produced from our business activities. Accordingly, all intensity values from 2018-2021 have been restated using this methodology. In addition, all data presented reflects full operatorship of the Syncrude Project unless otherwise stated. For more information, refer to [pages 9-10](#).

Reporting frameworks

We use several reporting frameworks to identify and report on our material sustainability factors, including:

- **Global Reporting Initiative Standards** – in accordance with universal and topic standards, and informed by oil and gas sector standards
- **IPIECA** – sector-specific sustainability reporting guidance for the oil and gas industry
- **Sustainability Accounting Standards Board** – industry-specific standards
- **Task Force on Climate-related Financial Disclosures** – recommendations
- **United Nations Sustainable Development Goals** – we support these 2030 global development priorities, and we share our perspectives on contributing to a number of the goals through our work.

About our report

Materiality: Identifying sustainability priorities

An important step in preparing our Report on Sustainability is reviewing the most relevant sustainability priorities for our business and those that matter most to our stakeholders. In 2023 we used the formal materiality assessment completed throughout 2020 to 2021 as it accurately considered a broad range of perspectives. We appreciate all feedback and engagement received from internal and external stakeholders as it provided an opportunity to evaluate our priority topics for our Report on Sustainability. Through 2020 and 2021, we reviewed priorities for our report to define issues of relative significance to environmental, social and governance priorities and their impacts (both positive and negative) both to our business and to our stakeholders. The following internal practices were used to identify and assess sustainability priorities across our business and topics for our report.

1. Input

- Stakeholder engagement: Build and maintain relationships with local communities, Indigenous Peoples and stakeholders, and meaningfully consider: their issues and concerns affected by our operations; and, through their actions, affect our business.
- Issues research: Conduct ad hoc issue research, peer benchmarking and review of previously identified priority sustainability topics.
- Trends: Assess trends and conduct best practice analysis, including reporting best practices.

2. Analysis

- Rank and prioritize topics considering a range of perspectives internally and externally through surveys, workshops and knowledge sharing.
- Evaluate in line with our annual enterprise risk management process.
- Determine relevance, informed by various sustainability reporting frameworks.

3. Assessment

- Prioritize topics, which could have a significant impact on Suncor's business success or that would substantively influence the assessments and decisions of stakeholders over the next one to three years.

4. Ongoing engagement

We operate in a complex environment with increasingly polarizing views about the energy industry. We believe that engaging with others will help us find solutions to our shared challenges.

We work to ensure Suncor is regarded as a Canadian business leader on all dimensions of sustainability – economic, environmental and social – so that we are a welcomed and influential participant and contributor to the energy system transformation.

To support our position as a Canadian business leader, we engage with a wide range of diverse stakeholders to consider their issues and concerns about our operations and the effects of proposed development. This includes working together to mitigate potential social, environmental and economic impacts, and ensuring that local communities benefit from development. We engage with stakeholders in multiple ways, including meetings, workshops and conferences. Not only does broad engagement support the operation of our base business, it also helps us to:

- assess our impacts and identify solutions
- explore new business opportunities
- support research, technology and innovation across the company
- embed sustainability across our entire energy system.

We seek to engage with partners in an atmosphere of mutual respect, knowing there will be times when we work with partners that don't support elements of our business or have different perspectives than ours. We welcome different opinions and perspectives that help us work toward the greater good and drive positive change.

When it comes to our workforce, we believe in engaging our employees and building a culture where feedback is encouraged. Employee engagement is especially important in maintaining strong business delivery in times of change.

About our report

Sustainability priorities

Our stakeholders consider these priorities to be critically important, and, for our business to be successful, these priorities require innovative, strategic approaches and a commitment to operational excellence across all functions of our organization.

- Climate change and energy transition
- Safety
- Indigenous relations
- Ethics
- Water stewardship
- Tailings management
- Innovation



We identified other significant priorities and our performance or approach to these priorities is included throughout our report. Topics that were evaluated, but not reported on, are managed, tracked internally and monitored in the context of an ever-changing external landscape. Our approach to technology and innovation is a key theme of this report and is closely related to many of the priorities identified in our materiality assessment.

- Environmental incidents
- Land and reclamation
- Air quality
- Biodiversity
- Waste

Environment

- Inclusion and diversity
- Economic impact
- Community relations
- Employee attraction, retention and engagement
- Local employment
- Labour relations
- Human rights

Social

- Risk management
- Stakeholder engagement
- Corporate governance
- Purpose
- Supply chain
- Market access
- Public policy and lobbying

Governance

Glossary

Acronyms & organizations

Term	Definition	Link
ACA	Alberta Conservation Association	Webpage link
COSIA	Canada's Oil Sands Innovation Alliance	Webpage link
CCND	Commerce City-North Denver Air Monitoring	Webpage link
GRI	Global Reporting Initiative	Webpage link
IYAC	Indigenous Youth Advisory Council	Suncor webpage
IPIECA	International Petroleum Industry Environmental Conservation Association	Webpage link
MAC TSM	Mining Association of Canada's Towards Sustainable Mining	Webpage link
OSCA	Oil Sands Community Alliance	Webpage link
Pathways Alliance		Webpage link
Petro-Canada CareMakers Foundation™		Webpage link
SunCares Program		Suncor webpage
SEF	Suncor Energy Foundation	Suncor webpage
SASB	Sustainability Accounting Standards Board	Webpage link
TMF	Tailings Management Framework	Webpage link
TCFD	Task Force on Climate-related Financial Disclosures	Webpage link
UNSDG	United Nations Sustainable Development Goals	Webpage link

Glossary

Terms

Term	Definition
Biodiversity	The variability among living organisms from all sources, including inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems. (UN Convention on Biological Diversity 2006).
Biofuels	Fuels derived from renewable biological sources (biomass) using various biological, thermal and chemical processes. Biofuels can be classified into different generations depending on the type of feedstock used for their production.
Bitumen	A naturally occurring solid or semi-solid hydrocarbon that is abundant in Alberta's oil sands, consisting of heavier hydrocarbons that are too viscous or dense to flow without being diluted or heated. Bitumen may be mined or produced in situ and is upgraded and refined into crude oil and other petroleum products.
Carbon capture and storage (CCS)	The process of capturing carbon dioxide from industrial processes or directly from the air (direct air capture) and storing it underground, with the aim of preventing its release into the atmosphere.
Circular economy	A system of production and consumption that aims to use existing products and materials, including waste, to reduce waste and improve resource management and the environment.
Cogeneration	The production of steam and electricity through a natural-gas-fired process, which has a lower GHG intensity than if the steam and electricity were produced independently.
Composite tailings	Treated tailings produced through a technology that combines fluid tailings with gypsum and sand and is deposited in in-pit tailings facilities where the tailings release water and quickly settle.
Decarbonization	An approach to reduce or eliminate the release of greenhouse gases to the atmosphere from a facility or operation.
Downstream	The upgrading and/or refining of crude oil and/or the distribution and sale of refined products in retail and wholesale markets.
Energy transition	The shift from higher- to lower-carbon sources of energy production and consumption.
Ethanol	A renewable fuel obtained from the fermentation of sugars or starch contained in grains (i.e., corn) or in other biomass feedstocks including agricultural, forestry and waste derived feedstocks. Ethanol is blended with our gasoline where conditions warrant and to meet federal and provincial mandates.
Flaring	The controlled release of gases produced from industrial activities such as crude oil refining and bitumen production.
Flocculated tailings	Treated tailings produced through a technology that pre-treats fluid tailings with a coagulant, followed by in-line flocculation with a polymer to bind the fine particles together into larger structures that can then be efficiently separated from the water.
Fluid tailings	A byproduct of the bitumen extraction process including water and sands, fines (clays) or residual bitumen or other hydrocarbons.
Greenhouse gas (GHG)	The six gases listed in the Kyoto Protocol: carbon dioxide (CO ₂); methane (CH ₄); nitrous oxide (N ₂ O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulphur hexafluoride (SF ₆). (GHG Protocol Corporate Standard, 2004)

Glossary

Term	Definition
Hydrogen	Hydrogen is used in Suncor's upgrading and refining processes, but it can also be used as a fuel that does not emit CO ₂ upon combustion.
In situ	Refers to bitumen in oil sands "in its original place," meaning bitumen is recovered directly from the deposit, with minimal land disturbance and no tailings (compared to mining). The most common recovery method is steam-assisted gravity drainage (SAGD). In situ production is required for approximately 80% of the bitumen found in the oil sands.
Inclusion and Diversity (I&D) Council	Governing body at Suncor that provides cross-enterprise leadership and governance in support of Suncor's strategy to foster inclusion and respect for broad-based diversity.
Journey of Reconciliation	The continuous effort for Suncor to build meaningful relations with Indigenous Peoples through both learning and challenging our own beliefs and actions.
Loss of primary containment (LOPC)	Events of unplanned or uncontrolled release of material from primary containment, resulting in consequences as specified by the American Petroleum Institute and the International Association of Oil and Gas Producers.
Lost Time Injury Frequency (LTIF)	The rate of injuries resulting in lost days from work per 200,000 hours worked.
Mitigation hierarchy	A widely accepted approach to biodiversity conservation that guides development activities through a series of deliberate and sequential steps to avoid, minimize or compensate/offset for environmental risks or impacts.
Net-zero emissions	Emissions of GHGs resulting from human activities are equivalent to the quantity of emissions reduced or removed, to achieve zero emissions, on balance.
Nitrogen oxide (NO_x)	Nitrogen oxides include nitric oxide (NO) and nitrogen dioxide (NO ₂). They can be produced during combustion of fuels and contribute to smog and acid rain.
Oil sands	Naturally occurring deposits consisting of a mixture of sand, water, clay and a type of oil called bitumen. Oil sands deposits are found throughout the world, but Alberta's Athabasca deposit is the largest and Alberta uses the most advanced production processes.
Operational Excellence Management System (OEMS)	Suncor's management system that establishes protocols to operate safely, reliably and cost-efficiently.
Operational Risk Management (ORM)	The systems for identification, assessment, treatment and monitoring of risks for Suncor operations.
Permanent aquatic storage structure (PASS) treatment	A fluid tailings treatment technology that uses in-line flocculation of fluid tailings with the addition of a coagulant and is deposited in in-pit tailings facilities.
Petroleum coke (also coke or petcoke)	A solid carbon byproduct of the oil upgrading and refining process with applications in energy production and many types of manufacturing. Suncor produces high-sulphur-fuel-grade petroleum coke at its oil sands operations in Fort McMurray and its refinery near Edmonton, and markets it in North America and globally.
Pit lakes	Lakes formed within the boundaries of a mined-out pit that are essential to the eventual closure of surface mining operations. Pit lakes are common elements of surface mining operations and closure plans across Alberta and around the globe, and have been used extensively in hard-rock and coal mines throughout the world.
Reclamation	The process of returning lands affected by surface mining activities to a beneficial end use.

Glossary

Term	Definition
Recordable Injury Frequency (RIF)	A rate of recordable injuries that includes medical treatment, restricted work access and lost time.
Remediation	The reduction, removal or neutralization of substances in soil, water or groundwater through the application of physical, chemical or biological processes to prevent or minimize adverse effects on the environment.
Renewable fuels	Fuels produced from a variety of renewable sources such as biomass and renewable energy using various biological, thermal and chemical processes. Examples include biofuels and certain types of low-carbon hydrogen.
Scope 1 emissions	Direct GHG emissions resulting from sources that are controlled or owned by an organization.
Scope 2 emissions	Emissions associated with generating electricity, heating/cooling, or steam purchased for use in a facility or operation.
Scope 3 emissions	GHG emissions that result from products and activities outside an organization's ownership and control but that are part of its value chain, such as from the combustion of fuel purchased by its customers.
Serious Injury and Fatality (SIF)	Events, including injuries and fatalities, that require immediate life-preserving rescue, and injuries that result in permanent or long-term impairment or loss of body part or function.
Significant spill	The unplanned or accidental release of material whose impact is either off Suncor property and takes longer than seven months to remediate, or is on Suncor property and takes one year or more to remediate or reclaim.
Sulphur dioxide (SO₂)	A colourless gas that is formed from the sulphur found in fossil fuels during refining and combustion.
Surface mining	The extraction of oil sands that are near the surface (approximately 130-200 feet deep).
Upstream	The exploration, development and production of oil and gas.
Volatile organic compounds (VOCs)	A wide range of organic substances that easily evaporate or disperse in vapour. When exposed to sunlight, VOCs can create ground-level ozone and particulate matter, which can contribute to smog.
Watershed	A land area that separates rainfall and snowmelt to different creeks, streams and rivers, which may also be drained by another body of water.

ESG disclosure index

Suncor participates in a number of environment, social and governance (ESG) frameworks and standards that help shape the content and materiality of the Report on Sustainability. Details on alignment and our responses are available in our ESG Disclosure Index. This document addresses the following: Global Reporting

Initiative (GRI) Standards, IPIECA, Sustainability Accounting Standards Board (SASB), Task Force on Climate-related Financial Disclosures (TCFD) and United Nations Sustainable Development Goals (UN SDG).

Recognition



Bloomberg's Climate Transition Scores ranked Suncor among the top 10 publicly traded oil and gas companies in 2021 on preparedness for a low-carbon world



CDP: Score of B for climate change and B for water security disclosure in 2022. Suncor has been named a top reporter by the CDP for many years.



Named to the Dow Jones Sustainability North American Index (DJSI), which marks 26 consecutive years on the DJSI. Additionally, Suncor was recognized as a 2022 Sustainability Yearbook Member.



FTSE4Good

Suncor has been listed on the FTSE4Good Index since 2009.



In 2022, Suncor received a rating of A in the MSCI ESG* Ratings assessment.



Suncor has been honoured at the highest level for our work in Indigenous relations. In 2020, Suncor was re-certified at Gold Level in the Canadian Council for Aboriginal Business's Progressive Aboriginal Relations (PAR) program.



Since 2021, Suncor has been assessed by the Transition Pathway Initiative for its management of greenhouse gas emissions and the opportunities related to the low-carbon transition.

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Performance data

Our sustainability performance data provides annual (January 1 to December 31) environmental, social, governance (ESG) and economic information, with five-year trends, where available. Data reflects assets owned and operated by Suncor unless otherwise stated.

Greenhouse gas and production data are reported on both, an operated and equity basis. Some values, including corporate totals and year-over-year calculations, may not work out exactly as shown due to rounding. Any 2022 data points accompanied by the (A) symbol were included in the KPMG LLP limited assurance engagement scope. See [page 91](#) for KPMG's limited assurance report. Due to different reporting methods and boundaries, not all data is consistent with our 2022 Annual Report.

Additional data can be found in our [2023 Sustainability Performance Data document](#).

Indicators	2018	2019	2020	2021	2022
Production – Operated⁴					
Sum of liquid hydrocarbon production <i>million m³ of liquid hydrocarbon</i>	115.29	126.30	113.46	116.75	123.31 (A)
Bitumen production <i>million m³ of bitumen</i>	53.99	59.43	52.47	55.82	59.58
Synthetic crude production <i>million m³ of synthetic crude</i>	31.58	36.43	34.71	34.91	36.15
Offshore crude production <i>million m³ of offshore crude</i>	1.81	1.79	–	–	–
Refined liquid hydrocarbon production <i>million m³ of refined liquid hydrocarbon</i>	27.50	28.25	25.94	25.69	27.23
Renewable fuels production <i>million m³ of renewable fuel</i>	0.40	0.40	0.34	0.34	0.36
Oil sands electricity generation <i>MWh of electricity</i>	10.57	10.89	10.81	10.57	10.69
Generated electricity internally consumed <i>MWh of electricity</i>	6.72	7.29	7.00	6.93	7.35
Generated electricity exported <i>MWh of electricity</i>	3.85	3.60	3.81	3.64	3.34
Wind electricity generation <i>MWh of electricity</i>	100,850	98,419	96,952	114,009	130,660
Ethanol production <i>million m³ of ethanol product</i>	0.40	0.40	0.34	0.34	0.36
Renewable fuels blended <i>million m³</i>	1.13	1.14	1.44	1.54	1.60
Production – Equity⁴					
Sum of liquid hydrocarbon production <i>million m³ of liquid hydrocarbon</i>	102.16	110.41	101.56	103.93	107.10
Bitumen production <i>million m³ of bitumen</i>	43.17	46.58	41.60	44.94	46.26
Synthetic crude production <i>million m³ of synthetic crude</i>	25.41	29.24	27.92	28.06	28.83
Offshore crude production <i>million m³ of offshore crude</i>	5.68	5.95	5.76	4.91	4.41
Refined liquid hydrocarbon production <i>million m³ of refined liquid hydrocarbon</i>	27.50	28.25	25.94	25.69	27.23
Renewable fuels production <i>million m³ of renewable fuel</i>	0.40	0.40	0.34	0.34	0.36

Performance data

Indicators	2018	2019	2020	2021	2022
Oil sands electricity generation <i>million MWh of electricity</i>	8.66	8.84	8.83	8.56	8.61
Generated electricity internally consumed <i>million MWh of electricity</i>	5.20	5.62	5.45	5.41	5.69
Generated electricity exported <i>million MWh of electricity</i>	3.46	3.21	3.38	3.16	2.92
Greenhouse gas (GHG) emissions – Operated^{5,6}					
Total GHG (scope 1 & 2) emissions <i>million tonnes of CO₂e</i>	34.06	35.19	33.43	34.15	34.96 (A)
Total GHG (scope 1) emissions <i>million tonnes of CO₂e</i>	32.41	33.67	32.02	32.69	33.52
Total GHG (scope 2) emissions <i>million tonnes of CO₂e</i>	1.64	1.52	1.41	1.46	1.45
Sum of liquid hydrocarbon production GHG (scope 1 & 2) emissions <i>million tonnes of CO₂e</i>	33.13	34.35	32.54	33.36	34.19
Bitumen production GHG (scope 1 & 2) emissions <i>million tonnes of CO₂e</i>	17.12	17.58	16.62	18.15	17.84
Synthetic crude production GHG (scope 1 & 2) emissions <i>million tonnes of CO₂e</i>	10.30	10.89	10.77	10.14	11.14
Offshore crude production GHG (scope 1 & 2) emissions <i>million tonnes of CO₂e</i>	0.59	0.52	0.05	-	-
Refined liquid hydrocarbon production GHG (scope 1 & 2) emissions <i>million tonnes of CO₂e</i>	4.96	5.18	4.96	4.93	5.08
Renewable fuels production GHG (scope 1 & 2) emissions <i>million tonnes of CO₂e</i>	0.16	0.17	0.14	0.14	0.14
Oil sands electricity generation GHG (scope 1) emissions <i>million tonnes of CO₂e</i>	2.53	2.58	2.56	2.45	2.50
Generated electricity internally consumed GHG (scope 1) emissions <i>million tonnes of CO₂e</i>	1.60	1.73	1.67	1.66	1.73
Generated electricity exported GHG (scope 1) emissions <i>million tonnes of CO₂e</i>	0.92	0.85	0.89	0.79	0.77
GHG intensity – Operated^{5,6}					
Sum of liquid hydrocarbon production GHG (scope 1 & 2) intensity <i>grams of CO₂e/MJ of liquid hydrocarbon</i>	7.12	6.73	7.10	7.06	6.84
Sum of liquid hydrocarbon production GHG (scope 1 & 2) intensity <i>tonnes of CO₂e/m³ of liquid hydrocarbon</i>	0.29	0.27	0.29	0.29	0.28 (A)
Bitumen production GHG (scope 1 & 2) intensity <i>tonnes of CO₂e/m³ of bitumen</i>	0.32	0.30	0.32	0.33	0.30
Synthetic crude production GHG (scope 1 & 2) intensity <i>tonnes of CO₂e/m³ of synthetic crude</i>	0.33	0.30	0.31	0.29	0.31
Offshore crude production GHG (scope 1 & 2) intensity <i>tonnes of CO₂e/m³ of offshore crude</i>	0.33	0.29	-	-	-
Refined liquid hydrocarbon production GHG (scope 1 & 2) intensity <i>tonnes of CO₂e/m³ of refined liquid hydrocarbon</i>	0.18	0.18	0.19	0.19	0.19
Renewable fuels production GHG (scope 1 & 2) intensity <i>tonnes of CO₂e/m³ of renewable fuel</i>	0.40	0.42	0.42	0.41	0.39
Oil sands electricity generation GHG (scope 1) intensity <i>tonnes of CO₂e/MWh of electricity</i>	0.24	0.24	0.24	0.23	0.23

Performance data

Indicators	2018	2019	2020	2021	2022
GHG emissions – Equity^{5,6}					
Total GHG (scope 1 & 2) emissions <i>million tonnes of CO₂e</i>	28.16	29.22	27.88	28.58	28.81
Total GHG (scope 1) emissions <i>million tonnes of CO₂e</i>	26.56	27.70	26.46	27.10	27.34
Total GHG (scope 2) emissions <i>million tonnes of CO₂e</i>	1.61	1.53	1.42	1.48	1.47
Sum of liquid hydrocarbon production GHG (scope 1 & 2) emissions <i>million tonnes of CO₂e</i>	27.33	28.47	27.10	27.91	28.14
Bitumen production GHG (scope 1 & 2) emissions <i>million tonnes of CO₂e</i>	13.93	14.40	13.69	14.98	14.54
Synthetic crude production GHG (scope 1 & 2) emissions <i>million tonnes of CO₂e</i>	7.59	8.04	7.76	7.39	7.97
Offshore crude production GHG (scope 1 & 2) emissions <i>million tonnes of CO₂e</i>	0.70	0.69	0.54	0.47	0.44
Refined liquid hydrocarbon production GHG (scope 1 & 2) emissions <i>million tonnes of CO₂e</i>	4.96	5.18	4.96	4.93	5.08
Renewable fuels production GHG (scope 1 & 2) emissions <i>million tonnes of CO₂e</i>	0.16	0.17	0.14	0.14	0.14
Oil sands electricity generation GHG (scope 1) emissions <i>million tonnes of CO₂e</i>	2.09	2.11	2.10	1.98	2.02
Generated electricity internally consumed GHG (scope 1) emissions <i>million tonnes of CO₂e</i>	1.26	1.35	1.32	1.30	1.36
Generated electricity exported GHG (scope 1) emissions <i>million tonnes of CO₂e</i>	0.83	0.76	0.79	0.67	0.67
GHG intensity – Equity^{5,6}					
Sum of liquid hydrocarbon production GHG (scope 1 & 2) intensity <i>grams of CO₂e/MJ of liquid hydrocarbon</i>	6.67	6.42	6.65	6.68	6.53
Sum of liquid hydrocarbon production GHG (scope 1 & 2) intensity <i>tonnes of CO₂e/m³ of liquid hydrocarbon</i>	0.27	0.26	0.27	0.27	0.26
Bitumen production GHG (scope 1 & 2) intensity <i>tonnes of CO₂e/m³ of bitumen</i>	0.32	0.31	0.33	0.33	0.31
Synthetic crude production GHG (scope 1 & 2) intensity <i>tonnes of CO₂e/m³ of synthetic crude</i>	0.30	0.27	0.28	0.26	0.28
Offshore crude production GHG (scope 1 & 2) intensity <i>tonnes of CO₂e/m³ of offshore crude</i>	0.12	0.12	0.09	0.10	0.10
Refined liquid hydrocarbon production GHG (scope 1 & 2) intensity <i>tonnes of CO₂e/m³ of refined liquid hydrocarbon</i>	0.18	0.18	0.19	0.19	0.19
Renewable fuels production GHG (scope 1 & 2) intensity <i>tonnes of CO₂e/m³ of renewable fuel</i>	0.40	0.42	0.42	0.41	0.39
Oil sands electricity generation GHG (scope 1) intensity <i>tonnes of CO₂e/MWh of electricity</i>	0.24	0.24	0.24	0.23	0.24
Energy use – Operated^{5,6}					
Total energy use <i>million GJ</i>	473.87	508.99	465.63	488.04	497.36 (A)
Direct energy use <i>million GJ</i>	466.29	503.81	461.48	480.36	489.47

Performance data

Indicators	2018	2019	2020	2021	2022
Indirect energy use <i>million GJ</i>	7.56	5.18	4.15	7.63	7.89
Energy intensity <i>GJ/m³ of liquid hydrocarbon</i>	4.11	4.03	4.10	4.18	4.03
Air emissions⁷					
SO₂ emissions <i>thousand tonnes</i>	52.38	48.46	44.48	45.46	50.23 (A)
SO₂ emissions intensity <i>kg/m³ of liquid hydrocarbon</i>	0.45	0.38	0.39	0.39	0.41
NO_x emissions <i>thousand tonnes</i>	59.49	62.24	60.63	59.21	62.38 (A)
NO_x emissions intensity <i>kg/m³ of liquid hydrocarbon</i>	0.52	0.49	0.53	0.51	0.51
VOC emissions <i>thousand tonnes</i>	32.23	32.42	32.42	41.34	45.83
VOC emissions intensity <i>kg/m³ of liquid hydrocarbon</i>	0.28	0.23	0.29	0.35	0.37
PM₁₀ emissions <i>thousand tonnes</i>	–	5.39	5.18	7.16	5.33
H₂S emissions <i>thousand tonnes</i>	–	0.07	0.07	0.05	0.06
Water use⁸					
Water withdrawal <i>million m³</i>	223.51	212.32	228.68	176.88	168.47 (A)
Surface water withdrawal <i>million m³</i>	147.27	157.36	104.26	102.23	103.24
Groundwater withdrawal <i>million m³</i>	8.18	7.10	7.71	8.77	7.47
Municipality/city/district water withdrawal <i>million m³</i>	4.12	4.16	3.86	3.89	4.39
Treated wastewater withdrawal <i>million m³</i>	1.52	1.74	2.48	2.85	2.65
Industrial runoff water withdrawal <i>million m³</i>	62.42	41.95	110.36	59.13	50.74
Water withdrawal intensity <i>m³/m³ of liquid hydrocarbon</i>	1.94	1.68	2.02	1.52	1.37 (A)
Water returned <i>million m³</i>	82.43	82.57	79.60	69.11	68.15
Water consumption <i>million m³</i>	141.07	129.75	149.08	107.00	100.32
Water consumption intensity <i>m³/m³ of liquid hydrocarbon</i>	1.22	1.03	1.31	0.92	0.81
Fresh water consumption <i>million m³</i>	86.60	95.54	70.90	67.61	66.40
Fresh water consumption intensity <i>m³/m³ of liquid hydrocarbon</i>	0.75	0.76	0.62	0.58	0.54

Performance data

Indicators	2018	2019	2020	2021	2022
Waste⁹					
Total waste generated <i>thousand tonnes</i>	2,637	2,577	2,809	2,998	3,061
Hazardous waste generated <i>thousand tonnes</i>	985	1,054	1,010	1,040	1,113
Hazardous waste incinerated <i>thousand tonnes</i>	4.21	3.46	3.04	3.08	3.47
Hazardous waste deep well injection <i>thousand tonnes</i>	958	1,010	969	1,004	1,072
Hazardous waste landfilled <i>thousand tonnes</i>	8.34	12.33	9.43	4.81	5.22
Hazardous waste otherwise disposed or treated <i>thousand tonnes</i>	15.17	28.38	28.41	28.30	29.64
Non-hazardous waste generated <i>thousand tonnes</i>	1,652	1,523	1,799	1,991	1,948
Non-hazardous waste incinerated <i>thousand tonnes</i>	0.17	0.02	0.00	0.69	0.30
Non-hazardous waste deep well injection <i>thousand tonnes</i>	1,315	1,174	1,596	1,647	1,558
Non-hazardous waste landfilled <i>thousand tonnes</i>	328	336	199	410	384
Non-hazardous waste otherwise disposed or treated <i>thousand tonnes</i>	9.72	13.08	4.06	2.62	4.20
Waste recycled, reused or recovered <i>thousand tonnes</i>	148.06	160.28	99.26	125.58	99.70
Land¹⁰					
Total active footprint <i>cumulative hectares</i>	63,224	64,311	66,012	66,999	68,553 (A)
Total land cleared <i>cumulative hectares</i>	8,881	8,704	9,509	9,366	8,563
Total land disturbed <i>cumulative hectares</i>	45,232	45,959	46,609	47,602	48,726
Ready for reclamation/Undergoing permanent reclamation <i>cumulative hectares</i>	1,581	1,518	1,355	1,208	2,075
Total land reclaimed <i>cumulative hectares</i>	7,619	8,130	8,539	8,823	9,189
Permanent Reclamation <i>cumulative hectares</i>	6,269	6,695	7,170	7,499	7,813
Temporary Reclamation <i>cumulative hectares</i>	1,350	1,435	1,368	1,324	1,376
Certified Land <i>cumulative hectares</i>	104	119	119	121	120
Tailings¹⁰					
Total volume of fluid tailings <i>million m³</i>	905	909	956	953	983 (A)
Treated tailings volumes <i>million m³</i>	42	55	34	27	31

Performance data

Indicators	2018	2019	2020	2021	2022
Environmental compliance¹¹					
Environmental incidents and non-compliance #	–	–	–	58	72
Significant spills #	0	0	0	0	0
Significant spills volume m ³	0	0	0	0	0
Spills > 1 bbl that reach the environment					
Total hydrocarbon and nonhydrocarbon #	–	–	–	6	8
Total volume of hydrocarbon and nonhydrocarbon m ³	–	–	–	360	42
Hydrocarbon only #	–	–	–	6	6
Hydrocarbon only m ³	–	–	–	360	36
Nonhydrocarbon only #	–	–	–	0	2
Nonhydrocarbon only m ³	–	–	–	0.0	6.0
Environmental regulatory fines \$ thousands	282	113	5,439	690	13
Economic¹⁴					
Revenues and other income \$ millions	40,036	40,511	25,290	41,102	63,038
Operating, selling and general expense (OS&G) \$ millions	10,428	11,105	9,794	11,366	12,807
Share buyback \$ billions	3.05	2.27	0.31	2.30	5.14
Employee and contractor service costs \$ billions	7.82	8.02	6.98	7.41	8.04
Royalties and taxes paid \$ millions	1,695	2,555	933	1,470	9,308
Distribution to shareholders \$ millions	3,230	3,439	2,554	2,384	3,411
Economic value retained \$ millions	24,654	23,379	11,973	25,846	37,471
Enterprise value \$ billions	76	81	52	62	71
Capital and exploration expenditures \$ millions	5,406	5,558	3,926	4,555	4,987
Political donations \$ thousands	0	0	0	0	0
Supply chain¹⁵					
Total supplier base #	7,934	7,198	6,253	6,542	6,636

Performance data

Indicators	2018	2019	2020	2021	2022
Indigenous supplier base #	106	112	128	137	132
Purchases of goods and services \$ billions	14.39	13.31	11.54	13.06	15.46
Total Indigenous supplier – spend \$ billions	1.17	1.44	1.58	2.44	3.10
Indigenous supplier – spend direct \$ billions	1.15	1.41	1.56	2.40	3.06
Indigenous supplier – spend indirect \$ billions	0.02	0.03	0.03	0.04	0.04
Social investments¹⁶					
Total contributions to charitable, non-charitable and community groups \$ thousands	28,980	32,941	36,278	39,119	40,350
Value of cash donations \$ thousands	27,843	32,754	32,411	38,065	39,505
Value of in-kind donations \$ thousands	1,137	187	3,867	1,054	845
Suncor's donation to the Suncor Energy Foundation (SEF) \$ thousands	18,455	20,255	19,000	24,000	24,000
SEF donations \$ thousands	15,817	15,143	17,637	17,956	17,830
Suncor's donations to PetroCanada Caremakers Foundation™ (PCCF) \$ thousands	–	–	–	2,000	2,000
PetroCanada Caremakers Foundation™ (PCCF) donations \$ thousands	–	–	–	2,232	2,161
Syncrude Joint Venture Project donations \$ thousands	6,224	6,355	5,468	4,943	4,234
SunCares Employee Program					
Employee participation %	26	29	34	27	27
Organizations supported #	1,377	1,501	1,935	1,809	1,723
Value of Suncor and SEF donations \$ thousands	2,822	2,660	2,954	3,837	3,674
Value of employee personal donations \$ thousands	2,719	3,138	2,802	2,910	2,555
Volunteer hours #	73,259	96,067	73,979	79,578	105,125
Health and safety¹²					
Total lost time injury frequency # per 200,000 hours worked	0.04	0.05	0.06	0.04	0.06
Employee lost time injury frequency # per 200,000 hours worked	0.05	0.05	0.06	0.06	0.07
Contractor lost time injury frequency # per 200,000 hours worked	0.03	0.04	0.06	0.03	0.06

Performance data

Indicators	2018	2019	2020	2021	2022
Total recordable injury frequency <i># per 200,000 hours worked</i>	0.40	0.40	0.33	0.39	0.37
Employee recordable injury frequency <i># per 200,000 hours worked</i>	0.35	0.33	0.26	0.43	0.35
Contractor recordable injury frequency <i># per 200,000 hours worked</i>	0.42	0.44	0.36	0.37	0.37
Serious injury and fatality <i># of events</i>	2	4	3	4	4
Employee and contractor fatalities <i>#</i>	0	1	3	2	2 (A)
Loss of primary containment (tier 1 and 2) <i>#</i>	55	51	47	44	55
Workforce¹³					
Suncor employees <i>#</i>	17,448	18,486	17,936	17,433	17,111
Full-time employees <i>#</i>	12,317	13,004	12,489	16,846	16,491
Part-time employees <i>#</i>	98	97	102	76	67
Temporary/casual employees <i>#</i>	211	382	444	511	553
Syncrude employees <i>#</i>	4,822	5,003	4,901	-	-
Long-term contractors <i>#</i>	559	534	235	921	713
Unionized workforce <i>%</i>	33.20	31.58	31.78	24.00	24.00
New employee hires <i>%</i>	7.70	8.30	3.30	4.70	6.19
Male new employee hires <i>%</i>	69.70	73.01	73.79	73.53	74.72
Female new employee hires <i>%</i>	30.30	26.99	25.52	23.04	25.28
Employee turnover <i>%</i>	6.00	4.80	4.60	6.60	8.32
Male employee turnover <i>%</i>	74.06	72.23	73.17	67.18	71.14
Female employee turnover <i>%</i>	25.94	27.77	26.17	32.04	28.23
Diversity¹⁷					
All employees					
Men <i>%</i>	76.80	75.27	76.15	77.69	77.54
Women <i>%</i>	23.20	24.58	23.71	22.25	22.15
Indigenous Peoples <i>%</i>	3.10	3.27	3.40	5.27	5.39

Performance data

Indicators	2018	2019	2020	2021	2022
Visible minorities %	12.60	11.81	12.88	8.96	5.58
Persons with disabilities %	0.67	0.74	0.76	0.51	0.39
Age less than 30 %	7.96	8.48	7.53	7.59	7.57
Age 30-50 %	64.26	65.82	65.71	64.88	65.51
Age greater than 50 %	26.11	25.56	26.77	27.50	26.66
Management					
Men %	71.67	65.67	65.22	70.89	74.19
Women %	28.33	34.33	34.78	29.11	25.81
Age less than 30 %	-	-	-	0	0
Age 30-50 %	-	-	-	36.71	38.71
Age greater than 50 %	-	-	-	63.29	61.29
Board of directors					
Men %	66.67	60.00	63.64	63.64	69.23
Women %	33.33	40.00	36.36	36.36	30.77
Remuneration of women to men					
%	-	97	97	96	97
Management %	-	96	97	95	96
Individual contributor %	-	97	96	96	97
Learning and development¹⁸					
Total hours of training and development #	-	-	-	347,624	305,050
Average per full-time equivalent (FTE) employee #	-	-	-	24	24
Total spend on training and development \$ millions	-	-	-	19.54	18.87
Average per FTE employee \$	-	-	-	1,500	1,500

Performance data footnotes

1 Overview

These notes provide additional details on reporting boundaries, calculations, and changes in methodologies, definitions, business segment structures and historical data. In 2023, we updated our reporting methodology to capture total production as the sum of all liquid hydrocarbons produced from our business activities. This method differs from our Annual Report, which uses production values based on final products sold to market. Our previous reporting for corporate intensities deducted product transfers within our business and did not reflect the many activities involved in making both intermediate and final products. Accordingly, performance data will now be reported using total production rather than final product sold to market, unless otherwise noted. Due to this change, corporate intensity values are lower than previously reported, although absolute emissions remain the same. Some values, including corporate totals and year-over-year calculations, may not work out as shown due to rounding.

2 Reporting boundaries

- a. Performance data is reported for Suncor-operated facilities (100%) and on an equity basis (reflecting our ownership share).
- b. Production data in this report may not match our 2022 Annual Report due to different reporting methods and boundaries.
- c. As of January 2023, we do not operate or have equity interest in renewable power facilities.
- d. Facilities are subject to annual planned and unplanned maintenance activities, which may impact the consistency of year-over-year trends.
- e. Facilities that are purchased and subsequently operated by Suncor in a reporting year may not be included in totals, unless owned or operated for the entire year (12 months).

3 Summary of business segments and operations included in performance data

- a. Suncor totals reflect consolidation of data where relevant and applicable.
- b. Upstream (Base Plant) includes Millennium and North Steepbank mining, extraction and integrated upgrading facilities, the integrated Poplar Creek cogeneration facility (owned and operated by Suncor as of 2015), and associated infrastructure for these assets.
- c. Upstream (Fort Hills), includes East Tank Farm.
- d. Upstream (Oil Sands in situ operations) data includes the Firebag and MacKay River operations and supporting infrastructure.
- e. Upstream Exploration and Production (E&P) includes:
 - E&P Terra Nova Floating Production Storage and Offloading facility situated off the east coast of Canada. Production at Terra Nova has been shut in since the fourth quarter of 2019.
 - Suncor holds non-operated interests in other Canadian and International E&P assets. Please visit www.suncor.com.
- f. Downstream (Refining and Logistics) includes refining operations in Montreal, Quebec; Sarnia, Ontario; Edmonton, Alberta; and Commerce City, Colorado. Other assets include a petrochemical plant and sulphur recovery facility in Montreal, and product pipelines and terminals in Canada and the United States (including the Portland Montreal Pipeline and the Northern Currier Pipeline). Additional information about our downstream business is available at www.suncor.com.
- g. Renewable Fuels includes the St. Clair ethanol plant, located in Ontario. As of January 2023, Suncor no longer operates any wind power facilities, environmental data will be included for the 2022 year, but will not be reported in 2023.
- h. Suncor assumed operatorship of the Syncrude Project on September 30, 2021. Syncrude includes both the Mildred Lake and Aurora North sites. Syncrude's data alignment is largely complete, but any further updates will be reflected in future reports. All 2018-2022 performance data in the 2023 Report on Sustainability and Climate Report now include Syncrude, unless otherwise stated. Five-year performance data (2018-2022) for Suncor-operated facilities, including Syncrude, and business units may be found in our 2023 sustainability performance data document.
- i. Any information or data pertaining to the Libya or Syria assets are not included within this report.

Performance data footnotes

4 Notes on operational performance and production

- a. The sum of liquid hydrocarbon production represents total production throughout our business, including bitumen, synthetic crude, offshore crude, refined liquid hydrocarbons and renewable fuels. Internal consumption is not deducted from this total. This value includes highly viscous liquid and semi-solid hydrocarbons and excludes solids, gases and non-hydrocarbons.
- b. Bitumen production is the total volume of bitumen produced at our sites and includes upgraded and non-upgraded volumes. This value is compiled from Base Plant, Syncrude, Fort Hills and in situ.
- c. Synthetic crude production is a mixture of liquid hydrocarbons derived by upgrading bitumen and includes products such as synthetic crude oil blends, diesel, diluents and intermediates. This value excludes solids, gases and non-hydrocarbons such as petroleum coke, fuel gas and sulphur. This value is compiled from Base Plant and Syncrude.
- d. Offshore crude production is crude oil that is produced by offshore facilities and excludes gases associated with petroleum gas. It includes production from the Terra Nova facility, which has been shut in since the fourth quarter of 2019.
- e. Refined liquid hydrocarbon production is the salable yield of liquid hydrocarbons produced at refineries and includes products such as gasoline, distillates, liquified petroleum gases, intermediates, heavy fuel oils, petrochemical feedstocks, and highly viscous liquid or semi-solid hydrocarbons like asphalt. It excludes solids and non-hydrocarbons such as petroleum coke, sodium bisulphite and sulphur. This production value is compiled with data from our refineries in Sarnia, Montreal, Commerce City and Edmonton.
- f. Renewable liquid fuel production represents liquid fuels produced from renewable sources, which currently includes our St. Clair ethanol plant.
- g. Oil sands electricity generation represents oil sands and in situ cogeneration, gas generation and steam turbine generation, and excludes electricity from mobile generators. It is disaggregated into internally consumed and exported electricity.
- h. Wind power generation is reported only on an operated basis.
- i. There were changes made to specific sites production values to align with the new methodologies listed above. Significant changes listed as follows: Base Plant production now includes both Bitumen and Synthetic crude, where only Synthetic crude was reported in the past (resulting in an average of a ~90% increase), Syncrude production including both Bitumen and Synthetic crude (resulting in an average of a ~120% increase), where only Syncrude Sweet Product was reported in the past and Sarnia including values from hydrotreated volumes previously not included (resulting in an average of a ~20% increase).

5 Notes on GHG emissions

5.1 GHG emissions factors

GHG emissions from our activities (e.g., production and fuel consumption) are estimated using emission factors and expressed in tonnes of carbon dioxide equivalent (CO₂e). This metric represents different gases based on their global warming potential (GWP) compared to carbon dioxide (which has a GWP of 1), using a common unit. Our 2015-2021 reporting used the 100-year GWP factors issued by the Intergovernmental Panel on Climate Change (IPCC) fourth assessment report (2007), which is aligned with the reporting conventions of agencies like Environment Canada and the U.S. Environmental Protection Agency (EPA). Starting with our 2023 report we are using the 100-year GWP factors issued by the IPCC fifth assessment report (2014), which is aligned with the Environment and Climate Change Canada (ECCC) Greenhouse Gas Reporting Program (GHGRP).

5.2 Measuring potential GHG emission sources

As our operations span multiple jurisdictions, sectors and types of operations, we use several protocols, including those of regulatory bodies (e.g., US EPA, Western Climate Initiative, Government of Alberta) and the World Resources Institute to develop facility-specific emission calculations. We determine the appropriate calculation protocol(s) based on jurisdiction, type of facility, emission source, and fuel type and composition. If there is no prescribed protocol for a specific equipment, a combination of standardized methodologies and sector-specific approaches are used.

Whenever possible, emission factors used in these calculations are derived from actual measured data rather than default factors. Factors that are derived from direct measurement, inferred from compositional data or are manufacturer-supplied provide the highest-quality data. In addition to using fuel-specific emission factors that rely on volumes, some emissions are calculated using process- or

Performance data footnotes

equipment-specific consumption rates in units such as run-hours. Due to the diversity of our operations, we have more than 1,400 standard factors in our database. This does not include thousands of other factors calculated daily for different fuels and sites based on fuel composition analysis.

5.3 GHG standard practices and methodologies

External agencies have developed standard, industry-specific methodologies that operators can choose to use in the absence of prescribed methods. The standard practices and methodologies we follow are widely accepted and documented so the numbers produced are verifiable by governments and third parties and are consistently applied from year to year.

These methodologies and guidance documents include:

- American Petroleum Institute (API) Compendium of Greenhouse Gas Emissions Methodologies for the Natural Gas Industry, 2009
- US EPA Mandatory Reporting of Greenhouse Gases Rule
- IPCC Fifth Assessment Report, 2014
- World Business Council for Sustainable Development/World Resources Institute Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, 2004
- 2006 IPCC Guidelines for National Greenhouse Gas Inventories
- Western Climate Initiative Design for the WCI Regional Program, July 2010
- Western Climate Initiative Final Essential Requirements of Mandatory Reporting: Amended for Canadian Harmonization, 2013
- Alberta Greenhouse Gas Quantification Methodologies, Technology Innovation and Emissions Reduction Regulation, Version 2.2
- Quebec's regulation respecting mandatory reporting of certain emissions of contaminants into the atmosphere, 2022
- Canada's Greenhouse Gas Quantification Requirements, Greenhouse Gas Reporting Program, 2022
- Environment Canada National Inventory Report, 1990-2020
- EPA eGRID2021 for US assets

5.4 Additional GHG notes

- a. Total GHG emissions are the sum of scope 1 (direct) and scope 2 (indirect) emissions.
 - Operated emissions represent 100% of operated assets.
 - Equity emissions are based on Suncor's working interest in operated and non-operated assets.
- b. Total GHG emissions do not consider our low-carbon power exports as a benefit, to align with regulatory reporting. This benefit is calculated using the quantity of cogeneration power exports and the difference between cogeneration power intensity and the Alberta grid intensity. The benefit is included in the calculation of our GHG emission intensities.
- c. The aggregate Suncor intensity calculation incorporates the sum of liquid hydrocarbon production, resulting in a production value reflective of our activities as an integrated company. The aggregate Suncor intensity will therefore not equal the weighted-average of product intensities.
- d. MacKay River scope 2 emissions include purchased electricity from the grid, and purchased electricity and steam from the third-party TransCanada cogeneration units.
- e. The Base Plant, Fort Hills, Syncrude and Firebag cogeneration units are operated by Suncor and 100% of cogeneration emissions contribute to total scope 1 emissions, including emissions associated with electricity that is sold to the Alberta grid.
- f. Refining and Logistics scope 1 emissions do not deduct CO₂ transfers to third parties.
- g. Scope 2 emissions are calculated based on actual supplier data if available and published literature if supplier data is unavailable.
- h. Scope 2 GHG emissions for MacKay River have been restated from 2018-2021 to reflect updated methodology calculations.
- i. Scope 3 GHG emissions provided in our Climate Report include fuel- and energy-related activities (category 3), processing of sold products (category 10) and use of sold products (category 11).

Performance data footnotes

- j. Category 3 emissions are estimated based on the total volume of natural gas used in Suncor's oil sands mining, in situ and refining operations, on an equity interest basis. Suncor estimates the extraction, production and transportation emissions associated with natural gas supplied to our operations. Diesel use is excluded.
- k. Category 10 emissions are estimated based on the volume of intermediate products sold by Suncor to other refineries and the regions to which they were sold, on an equity interest basis. Intermediate products assessed include bitumen, synthetic crude oil and offshore crude oil.
- l. Category 11 emissions are estimated based on the following methods, on an equity interest basis:
- Upstream production: The sum of upstream hydrocarbon production, assuming it is processed into refined products and combusted. Includes net shipped quantities of bitumen, synthetic crude, offshore crude and petroleum coke. GHG emission factors were sourced from the US EPA 2022 GHG Emission Factors Hub and the 2021 API Compendium of GHG Emission Methodologies.
 - Refinery throughput: The sum of refined products at our Edmonton, Commerce City, Sarnia and Montreal refineries. Includes gasoline, distillates, and combustibles such as propane, butane, petcoke and heavy fuel oil. GHG emission factors were sourced from the US EPA 2022 GHG Emission Factors Hub and the 2021 API Compendium of GHG Emission Methodologies.
 - Branded sales: The sum of refined product sales to retail customers within Canada and the US, excluding wholesale products. Carbon dioxide emissions from renewable fuels that are blended with the refined products have been subtracted, as renewable fuel combustion emissions are considered carbon neutral.
- m. Our GHG objectives encourage emission reductions throughout our value chain. To support tracking our progress, Suncor has a methodology that quantifies direct reductions from our operations and indirect reductions from the use of our products.
- n. Regulations, such as Alberta's TIER, require that we have our facility emissions third-party verified at a reasonable level of assurance. Since regulatory and sustainability reporting timelines do not necessarily align, not all regulatory verifications may have been final at the time of publication of this report.
- o. Emissions data from operations in which we have an equity interest may not have been verified and is subject to change.
- p. No credit is taken in our scope 1 and 2 GHG performance data for the benefits associated with internally generated performance credits, purchased offsets, ethanol life-cycle GHG reductions or wind-generated offsets.
- q. GHG emission allocations by liquid hydrocarbon production (i.e., bitumen, synthetic crude, offshore crude, refined liquid hydrocarbons and renewable fuels) are based on guidance provided in the GHG Protocol and internal engineering methodologies.
- r. The sum of liquid hydrocarbon production emissions and oil sands electricity export emissions equals total scope 1 & 2 GHG emissions.
- s. 2020 GHG data for Terra Nova is included within the offshore crude production GHG (scope 1 and 2) emissions value.
- t. Due to the new production methodology, our resulting sum of liquid hydrocarbon production GHG (scope 1 & 2) intensity value has decreased by ~30%, although the absolute value has remained the same.

6 Notes on energy use

- a. Total energy is equal to the sum of direct and indirect energy. Electricity that was produced and sold to provincial grids by oil sands and in situ cogeneration units and operated wind farms is converted to an equivalent amount in gigajoules and deducted from total energy use.
- b. Direct energy is primary energy consumed on site by Suncor-operated facilities.
- c. Indirect energy includes imported electricity, steam, heating and cooling from third parties. The indirect energy calculation method credits operations for electricity exported to external users.
- d. Indirect energy consumption has been restated for MacKay River from 2018-2021 to reflect updated methodology calculations.
- e. Energy use is reported only on an operated basis.
- f. The emissions factors used in this report are the most recently published values for Canada from the National Inventory Report (NIR) taken as of December 31 of the reporting year, which is the NIR 2022 factors for 2019. The exception to this is the Commerce City refinery, which used the eGRID2021 factor for 2021.

Performance data footnotes

7 Notes on other air emissions

- a. Air emissions data reported (NO_x, SO₂ and VOC) include point and non-point sources.
- b. Suncor and Syncrude report to the Canadian National Pollutant Release Inventory annually. Suncor also reports to the U.S. Toxic Release Inventory annually. Additional information on performance can be found through these reporting mechanisms.
- c. Graphs associated with SO₂, NO_x and VOC emissions intensity only include facilities that are material sources of these emissions for our business. Oil Sands and Syncrude estimation accuracy for VOC emissions intensity is greater than +/- 10% and is limited by currently accepted methodology and measurement instruments.
- d. The VOC quantification methodology from equipment leaks has been updated to reflect the changes in the new federal VOC regulation for the Petroleum Sector (SOR/2020-231) for some of our refineries in 2022 and moving forward.
- e. PM₁₀ values have been restated at Syncrude to better align with Suncor's methodology; a value for PM₁₀ in 2018 for Syncrude is unavailable and therefore not included; values from 2019-2021 are more similarly aligned and the value for 2022 is fully aligned with Suncor's methodology. SO₂ values in 2022 and moving forward at our Sarnia refinery will be higher due to updates in calculation methodology. Minor adjustments were made to 2020 and 2021 SO₂ emissions due to calculation corrections at our In Situ facilities.

8 Notes on water use and return

- a. Total water withdrawal is the removal or purchase of water from any source, either permanently or temporarily. It is also referred to as water abstraction or water intake, and it includes both fresh and non-freshwater sources. This value does not include produced water. Further efforts to align definitions across sites will be considered in future reporting periods.
- b. Total water return is the sum of effluents and other water leaving the organization's boundary and released to surface water, and to third parties over the course of the reporting year. We also discharge underground in deep well disposals, but not into groundwater.
- c. Fresh water is characterized by a low total dissolved solids content for which limits are defined by regulation in the jurisdiction of Suncor activity. Where no regulatory definition of fresh water exists, we default to the Alberta Environment limit of fresh water having less than 4,000 mg/L of total dissolved solids.
- d. Water consumption is the total water withdrawn minus water returned and reflects quantity of water used and not returned to its proximate source or no longer available in its original form.
- e. Freshwater consumption and intensity graph: Oil Sands Base Plant, Fort Hills and Syncrude in this graph do not include industrial runoff water, which is subject to annual variances based on precipitation. Withdrawal and consumption including industrial runoff volumes are shown in the performance data tables. Water measurement and estimation methodology on select Refining & Logistics operations is greater than +/- 10% uncertainty.
- f. Freshwater consumption intensity is the volume of fresh water consumed (m³) per volume of liquid hydrocarbon products.
- g. Freshwater withdrawal and intensity graph: Includes freshwater withdrawal from surface water and ground water. This value does not include industrial runoff, municipality/city/district water or treated wastewater withdrawal volumes. Water measurement and estimation methodology on select Refining & Logistics operations is greater than +/- 10% uncertainty.
- h. Oil Sands Base Plant, Fort Hills and Syncrude mining water withdrawal includes surface water, groundwater and industrial run off water as per regulatory withdrawal licences and are subject to annual variances based on precipitation. Water returned includes treated industrial wastewater and runoff from non-process areas that gets collected, diverted and eventually discharged to the environment (destination is the Athabasca River).
- i. In Situ water withdrawal includes licensed groundwater wells, treated wastewater and industrial runoff water.
- j. Refining and Logistics surface water withdrawal sources and return destinations vary by refinery facility location.
- k. Freshwater consumption at Base Plant was restated for 2021 to reflect a corrected value in our calculation.
- l. Due to the new production methodology, our resulting water withdrawal intensity value has decreased by ~30%, although the absolute value has remained the same.
- m. Treated wastewater withdrawal was restated for the 2021 corporate total to reflect a corrected calculation.

Performance data footnotes

9 Notes on waste management

- a. Waste volumes depend on site activities or periodic equipment maintenance and may fluctuate annually.
- b. In Situ waste that is sent to deep well injection is primarily related to blowdown from our steam-assisted gravity drainage operations at Firebag, consisting of concentrated water impurities that accumulate during the steam generation process. This boiler feedwater is intentionally wasted from the boilers to avoid concentration of impurities during continuing evaporation of steam. Deepwell disposal methods of this nature are safe, viable and part of normal operating parameters and our operations are within the disposal limits for these waste streams (regulated by the Alberta Energy Regulator). Our operations also have exceptionally high water recycling rates, above regulated levels.
- c. Hazardous waste is defined as hazardous, toxic, dangerous, listed, priority, special or some other similar term as defined by an appropriate country, regulatory agency or authority. Under regulatory law, wastes that, when present in quantities and concentrations that are high enough, pose a threat to human health or the environment if they are improperly stored, transported, treated or disposed.
- d. Non-hazardous waste is considered less harmful to the environment or human health as defined by an appropriate country, regulatory agency or authority.

10 Notes on land disturbance and reclamation/tailings

- a. Total active footprint includes cumulative hectares for land cleared, land disturbed, land that is ready for or under reclamation and total land reclaimed. Certified land is not included in this value. The categories and definitions used are consistent with reporting to the Alberta Energy Regulator (AER) in the annual reports.
- b. At the mines, land cleared includes areas where vegetation has been removed for preparation for activities (as per AER's SED 003). At our in situ sites, land cleared includes areas that are under construction and land that was cleared and now support active and inactive operations (as per AER's SED 001).
- c. At our mines, land disturbed includes areas that will be used for the project, where soil has been removed (as per AER's SED 003). At our in situ sites, land disturbed includes areas that are under construction and active or inactive operations where soil has been removed (as per AER's SED 001).
- d. At the mines, ready for reclamation/undergoing permanent reclamation includes land tracked as ready for reclamation and land that has had soil placed as per SED 001 definitions. At our in situ sites, the category includes cleared and disturbed land tracked as ready for reclamation and land undergoing permanent reclamation activities. This includes:
 - areas that are no longer required for activities, where reclamation will occur but has not started
 - areas where activities are taking place to support land reclamation
 - areas where activities related to reclamation have occurred (such as soil placement; not including revegetation).
- e. Land reclaimed is land that is no longer being used for mine, plant or in situ production purposes and has been permanently or temporarily reclaimed (as per AER's SED 001 or SED 003). Reclamation is presented as a cumulative number; therefore, the total number of hectares reported from year to year will change depending on whether reclamation has occurred or whether re-disturbance of previously reclaimed areas was required. Permanently reclaimed lands have met the authorized plans for soil placement and revegetation, and have not been certified by the Alberta Energy Regulator.
- f. The dam safety regulation in Alberta is through the Water (Ministerial) Regulation and detailed in the Dam and Canal Safety Directive. The regulation and directive govern dam safety requirements for all dams and canals in the province, including defining dam classifications:
 - Active is defined as in operation for either ongoing tailings management or progressing to closure
 - Inactive is defined as not in operation but not yet closed
 - Closed or reclaimed surface is defined as having completed closure activities but still owned by the operator.
- g. The fluid tailings volumetric estimate for 2020 is in alignment with Base Plant's updated ready to reclaim targets approved by the Alberta Energy Regulator in the first quarter of 2021.
- h. Syncrude tailings values were restated from 2018-2021 to align with Suncor's reporting methodology.

Performance data footnotes

- i. In 2022 a decision to further delineate the total active footprint resulted in the need to represent the values for 2018 through 2022 using the updated approach that is more representative of the detailed categories used in the annual reports provided to the AER.
- j. Total fluid tailings volumes is the net value, where ready to reclaim volumes that meet regulatory criteria are deducted from a gross fluid tailings volume.

11 Notes on environmental compliance

- a. Starting in the 2022 Sustainability report, the environmental incident and non-compliance metric replaces the metric in previous reports titled “Environmental non-compliance.” The updated metric includes all incidents previously reported as “environmental non-compliance” as well as an additional subset of incidents that corresponds to a lower threshold on Suncor’s risk matrix.
- b. Environmental incidents and non-compliance data represent incidents with higher environmental and regulatory risk that aligns with Suncor’s risk matrix and reflect, at minimum, an event triggering regulatory reporting or non-compliance to regulatory requirements.
- c. Significant spills reflect the unplanned or accidental release of material whose impact is either off property and takes longer than seven months to remediate or is on property and takes one year or more to remediate or reclaim.
 - A reportable spill >1 bbl reaching the environment reflects an unplanned or accidental release of material with off-property impact or on-property impact requiring remediation or reclamation.
- d. The threshold for a reportable spill >1 bbl reaching the environment is lower than “Significant Spill”.
- e. Both reportable spills >1 bbl that reach the environment and significant spills are subcategories of an Environment Incident and Non-compliance.
- f. Based off IPIECA guidance (International Petroleum Industry Environmental Conservation Association), the following substances are in scope for reportable spills: hydrocarbon liquids, chemicals, produced water and other process-related non-hydrocarbons.
- g. An incident may be excluded as a reportable spill >1 bbl that reaches the environment based on substance type; however, the incident would still be included as an Environmental Incident and Non-compliance.
- h. Environmental regulatory fines align to our risk matrix, and reflect financial penalties levied by the regulator, or the courts, and are paid in the reporting year as a result of a regulatory non-compliance or exceedance. The threshold for reporting is for fines, penalties or settlements >\$10,000 CDN or USD.
 - the year that a fine is paid does not necessarily correlate to the year that the incident occurred
 - the environmental-related fines paid during the reporting period were due to violating air requirements.
- i. Previous years’ compliance data is not subject to restatement for the Report on Sustainability.

12 Notes on health and safety

- a. All health and safety information reported in this filing is based on data as of February 2, 2023. Suncor total values reflect the inclusion of Syncrude data.
- b. Health and safety data are subject to restatement for a full year as events are updated and reclassified to ensure consistency and accuracy in publicly available information.
- c. Downstream Refining and Logistics health and safety data includes our St. Clair ethanol plant. Our U.S. operations use the Occupational Health and Safety Administration definitions to classify their injuries, which differ slightly from Canadian standards.
- d. Lost time injury is a work-related injury that results in lost days from work. Fatalities are included in lost time injuries. Frequency is calculated as the number of lost time injuries multiplied by 200,000 (based on 100 workers working full time for one year) divided by the measured employee and contractor exposure hours. Prime contractor incident data is excluded from this metric.
- e. Recordable injury is a work-related injury that results in recordable injuries (including medical treatment, restricted work access and lost time). Frequency is calculated as the number of lost time injuries multiplied by 200,000 (based on 100 workers working full time for one year) divided by the measured employee and contractor exposure hours. Prime contractor incident data is excluded from this metric.

Performance data footnotes

- f. Serious Injury and Fatality (SIF) events include the following incident types: fatalities; any injury that requires immediate life-preserving rescue action, and if not applied immediately would likely result in the death of that person (life-threatening); and any injury that results in permanent or long-term impairment or loss of an internal organ, body function or body part (life-altering).
- g. Due to methodology differences, Syncrude SIF events are only included in the Suncor total starting in October 2021 to align with operational control. Methodologies are being assessed for future alignment and reporting. Contractors refer to any organization, company or individual who provides goods and/or services to Suncor.
- h. Fatalities are reported for employees and contractors (excluding prime contractors). The prime contractor for a work site is (a) the person in control of the work site, or (b) a person designated in writing by the person in control of the work site. Prime contractors have full care, custody and control, meaning they manage their own work and are responsible for maintaining safe working environments.
- i. Process Safety Tier 1 and 2 Loss of Primary Containment (LOPC) events are unplanned or uncontrolled release of any material from primary containment resulting in consequences as specified by American Petroleum Institute Recommended Practice 754 Second Edition, 2016, and International Association Oil & Gas Producers Report 456: Process Safety Recommended Practice on Key Performance Indicators Version 2.0, 2018. The LOPC data is a sum of Tier 1 and 2 LOPC events.

13 Notes on workforce

- a. In 2022, Suncor shifted to a new HR system resulting in re-categorization of workforce groups. Indigenous representation pulled from multiple internal sources of data. Syncrude is included in the total Suncor employees for 2018 to 2022. Syncrude is not included within the breakdown of employees into categories for 2018 to 2020.
- b. New employee hires are any externally or internally hired regular full-time or part-time employees whose permanent start date falls within the reporting period.
- c. Employee turnover is the percentage of employees who leave Suncor under any circumstance in the reporting year. Only terminations are included for full-time and part-time employees.
- d. Suncor employees include regular full-time, regular part-time, casuals and temporary employees. Leaves are not included.
- e. Long-term contractors are individual workers engaged as contractors to support short-term, variable work and have been determined by the number of contractors holding a position at Suncor in the organizational structure. This would only include independent contractors, and exclude contract services, contract retailers and consultants.
- f. Unionized workforce data is only applicable in areas where there is a unionized environment. This number reflects integration with Syncrude, which had no unionized workers.
- g. All workforce information reported in this filing is based on data as of December 31, 2022. The workforce data provided may not align with that in the 2022 Annual Report due to different methodologies.

14 Notes on economic performance

- a. Select economic figures have been calculated according to International Financial Reporting Standards. For complete disclosure of our financial information, see our 2022 Annual Report.
- b. Beginning in 2021, operating revenues and other income have been updated to be presented as gross revenues plus other income (loss), and exclude royalties.
- c. Operating, selling and general (OS&G) expenses are subject to historical restatements due to reclassifications within our income statement. In 2021, prior period amounts of OS&G expense were reclassified to align with the current year presentation. Employee and contract service costs are reported in our annual report under OS&G and include salaries, benefits, and share-based compensation, professional service costs and other related costs.
- d. In 2022, we added contract service costs into our employee cost line item. This is now the combined costs our employee and contract service and value has been restated back to 2018.
- e. Royalty expense and taxes paid include monies remitted to government, including income, property and other taxes, Crown royalties, and lease bonuses and rentals. For simplicity, royalty expense is provided, which may differ from when royalties are paid.

Performance data footnotes

- f. Payments to providers of capital includes dividends paid on common shares and interest on debt.
- g. Under GRI Standard 201-1, economic value retained reflects the direct economic value generated (revenues) minus economic value distributed (operating costs (including employee costs), royalty expense and taxes paid, payments to providers of capital and community investments).
- h. Enterprise value includes market capitalization from equity plus total debt (which includes short-term debt, current portion of long-term debt, current portion of long-term lease liabilities, long-term debt and long-term lease liabilities), less cash and cash equivalents.
- i. Capital and exploration expenditures include capitalized interest for all periods presented. Capital and exploration expenditures excludes capital expenditures related to assets held for sale of \$133 million in 2022.
- j. As of June 1, 2016, Suncor no longer makes political contributions as a matter of policy, except in exceptional circumstances. Any such contributions will continue to be disclosed in this report.

15 Notes on supply chain

- a. Indigenous supplier spend:
 - Direct spend is considered contracting work directly with an Indigenous business that includes those with a minimum of 51% ownership by Indigenous individuals or organizations
 - Indirect spend is considered contracting with a non-Indigenous supplier who sub-contracts to an Indigenous business that is greater than or equal to 51% owned for work that is being performed on behalf of Suncor, contracting with an Indigenous supplier who has a minority ownership in a non-Indigenous business, or a non-Indigenous supplier who has a commercial agreement where revenue received from work being performed for Suncor goes back to the community.
- b. Values reported for Indigenous supplier revenues reflect amounts captured in our enterprise software data management system, minus 5% GST.
- c. Inclusion of contracts in the reporting year is based on the payment date, not the date of services rendered.
- d. The Indigenous supplier spend direct value for 2018 has been updated to reflect a corrected value.
- e. All supply chain information reported in this filing is based on data as of December 31, 2022, aligned with internal stewardship reporting to ensure consistency and accuracy in publicly available information.
- f. Total supply base for Suncor and Syncrude was counted separately as data is tracked in two different systems and will not be merged until Q3 2023. All other supply chain data was restated for 2018-2021 to include Suncor and Syncrude combined. Syncrude did not historically track indirect Indigenous supplier spend so that value only reflects Suncor's indirect spend. All other supply chain data was restated for 2018-2021 to include Suncor and Syncrude combined.

16 Notes on social investments

- a. Value for social investment is calculated by Suncor and is generally unaudited except for donations made by the Suncor Energy Foundation (SEF) and the Petro-Canada CareMakers Foundation™ (PCCF). The SEF and PCCF's financial statements are audited annually by KPMG. The value of total community investment includes cash, volunteer rewards and in-kind donations.
- b. Value of management cost donations from 2015 to 2022 is for SEF only.
- c. The SEF is limited to providing donations to registered Canadian charitable organizations, and Suncor's contribution to SEF supports donations, operating budget and appropriate allocations to a reserve fund that protects multi-year commitments going forward.
- d. Suncor launched a new SunCares employee program in 2017. Suncor and SEF donations support volunteer rewards and matching donations. Employee personal donations include employee and retiree donations and donations made through the public SunCares Community Impact Portal.
- e. The Petro-Canada CareMakers Foundation™ (PCCF) was launched by Suncor, owner of Petro-Canada™, in November 2020. The PCCF is a registered public foundation, which engages in fundraising, awareness building and providing donations to registered charitable organizations who support family caregivers. Suncor's contribution to PCCF represents donations only. At this time all operating costs for PCCF are paid by Suncor. See www.caremakers.ca.

Performance data footnotes

- f. Syncrude Joint Venture Project donations are the total investments to registered charitable organizations and community groups; this value represents 100% of Syncrude's donations. As a Joint Venture Participant, Suncor contributes 58.74% of Syncrude's donations; this value is included in Suncor's total contributions. Values from 2019-2021 are not verified.
- g. The 2021 value of cash donation value was restated to reflect donations that were not included within last year's report. The total contributions to charitable, non-charitable and community groups value has been updated to reflect this change.

17 Notes on diversity

- a. In 2022, Suncor shifted to a new HR system resulting in re-categorization of workforce groups. Syncrude diversity data has been integrated into the 2022 indicators where data is available. Syncrude is not included in the 2018 to 2021 values due to data availability.
- b. Certain operating regions prohibit collecting information on gender; therefore, diversity gender data may not reflect our entire workforce due to data availability. Workforce diversity data is calculated based on information provided voluntarily by employees. Indicators referring to ethnicity and disability reflect only those employees who have voluntarily self-identified; these indicators were not collected by Syncrude in the past.
- c. Management is classified as members of the management committee or members of the corporate committee, which is Vice Presidents (VPs) and above. ELT (formerly management committee) or senior leader (formerly corporate committee) or mid-level leader or front-line leader.
- d. All workforce information reported in this filing is based on data as of December 31, 2022. The workforce data provided may not align with that in the 2022 Annual Report due to different methodologies.
- e. Ratio of basic salary and remuneration of women to men:
- for the purpose of this calculation females are the numerator and males are the denominator
 - ratio only reflects full-time and part-time, salaried, casuals and temporary (and including unionized and non-unionized employees)
 - excludes unknown gender, and insufficient information from salary bands
 - salary band is used to calculate the ratio at each salary band level to group similarly paid individuals. A weighted average is applied to each salary band level to obtain the overall ratio for management and individual contributor categories
 - annual salary conversion was applied based on the Finance department's 2022 conversion rate.
- f. The Board of directors data presented within this report is as of March 6, 2023 to align with our 2023 Annual Information Form.

Independent practitioner’s limited assurance report



KPMG LLP

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To the management of Suncor Energy Inc. ('the Entity')

We have undertaken a limited assurance engagement on certain key performance indicators of the Entity, included in the 2023 Report on Sustainability and Climate Report (collectively 'the Reports') and as described below, as at and for the year ended December 31 2022.

Subject matter information and applicable criteria

The scope of our limited assurance engagement, as agreed with management, comprises the following performance information (collectively the 'subject matter information'):

Subject Matter Information	Results	Applicable Criteria
Sum of liquid hydrocarbon production	123.31 million m ³ of liquid hydrocarbon	Internally developed criteria
Total GHG (scope 1 & 2) emissions	34.96 million tonnes of CO ₂ e	The World Resources Institute/ World Business Council for Sustainable Development GHG Protocol A Corporate Accounting and Reporting Standard ('GHG Protocol') & GHG Protocol Scope 2 Guidance (<i>Supplement to the GHG Protocol</i>)
Sum of liquid hydrocarbon production GHG (scope 1 & 2) intensity	0.28 tonnes of CO ₂ e/m ³ of liquid hydrocarbon	GHG Protocol & Internally developed criteria
Water Withdrawal	168.47 million m ³	Internally developed criteria
Water Withdrawal Intensity	1.37 m ³ /m ³ of liquid hydrocarbon	Internally developed criteria
Employee and Contractor fatalities	2	Internally developed criteria
Total Active Footprint for Baseplant, Fort Hills, Syncrude, Firebag and Mackay River	68,553 cumulative hectares	Internally developed criteria
Total Energy Use	497.36 million GJ	Internally developed criteria
NO _x emissions	62.38 thousand tonnes	Internally developed criteria
SO ₂ emissions	50.23 thousand tonnes	Internally developed criteria
Total Fluid Tailings Volumes for Base Plant, Syncrude, Fort Hills	983 million m ³	Internally developed criteria

Independent practitioner's limited assurance report



Other than as described in the preceding table, we did not perform assurance procedures on the remaining information included in the Reports, and accordingly, we do not express a conclusion on this information. The assured subject matter information, contained within the Reports and denoted by the symbol "(A)", has been determined by management on the basis of the Entity's assessment of the material issues contributing to their sustainability performance and most relevant to their stakeholders.

Management's responsibilities

Management is responsible for the preparation and presentation of the subject matter information in accordance with the applicable criteria.

There are no mandatory requirements for the preparation, publication or review of sustainability metrics. As such, the Entity applies the applicable criteria, including its own internal reporting guidelines and definitions for sustainability reporting, which can be found in the footnotes found on pages 81-90 of the 2023 Report on Sustainability.

Management is responsible for determining the appropriateness of the use of the applicable criteria.

Management is also responsible for determining the Entity's objectives in respect of sustainability performance and reporting, including the identification of stakeholders and material issues.

Management is also responsible for such internal control as management determines necessary to enable the preparation and presentation of the subject matter information that is free from material misstatement, whether due to fraud or error.

Practitioner's requirements

Our responsibility is to express a limited assurance conclusion on the subject matter information based on evidence we have obtained. We conducted our limited assurance engagement in accordance with International Standards on Assurance Engagements (ISAE) 3000, *Attestation Engagements Other than Audits or Reviews of Historical Financial Information* and ISAE 3410, *Assurance Engagements on Greenhouse Gas Statements*, issued by the International Auditing and Assurance Standards Board. ISAE 3000 and ISAE 3410 require that we plan and perform our engagement to obtain limited assurance about whether based on the procedures performed and evidence obtained, any matter(s) has come to our attention to cause us to believe that the subject matter information is materially misstated.

The procedures performed in a limited assurance engagement vary in nature and timing from and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Accordingly, it is not a guarantee that a limited assurance engagement conducted in accordance with this standard will always detect a matter that causes the practitioner to believe that the subject matter information is materially misstated.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users of our report.

The nature, timing and extent of procedures performed depends on our professional judgment, including an assessment of the risks of material misstatement, whether due to fraud or error, and involves obtaining evidence about the subject matter information.

Our engagement included assessing the appropriateness of underlying subject matter, the suitability of the criteria used by the Entity in preparing the subject matter information in the circumstances of the engagement and evaluating the appropriateness of the methods, policies and procedures, and models used in the preparation of subject matter information and the reasonableness of estimates made by the Entity.

Our engagement included, amongst others, the following procedures:

- Inquiries with relevant staff at the corporate and facility level to understand the data collection and reporting processes for the subject matter information;
- Assessment of the suitability and application of the criteria in respect of the subject matter information;

Independent practitioner's limited assurance report



- Where relevant, performing walkthroughs of data collection and reporting processes for the subject matter information;
- Comparing a sample of the reported data for the subject matter information to underlying data sources;
- Inquiries of management regarding key assumptions and, where relevant, the re-performance of key calculations;
- Completion of a site visit to the Syncrude facility, including a site walkthrough of data collection and reporting processes, interviews with senior management and relevant staff and site inspection and tour; and
- Reviewing the presentation of the subject matter information in the Reports to determine whether the information presented is consistent with our overall knowledge of, and experience with the sustainability performance of the Entity.

The engagement was conducted by a multidisciplinary team which included professionals with suitable skills and experience in both assurance and in the applicable subject matter, including environmental, social and governance aspects.

Practitioner's independence and quality management

We have complied with the relevant rules of professional conduct/code of ethics applicable to the practice of public accounting and related to assurance engagements, issued by various professional accounting bodies, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies Canadian Standard on Quality Management 1, Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements which requires the firm to design, implement and operate a system of quality management, including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Significant Inherent limitations

Historical non-financial information, such as that contained in the Reports, is subject to more inherent limitations than historical financial information, given the characteristics of the underlying subject matter and methods used for determining this information. The absence of a significant body of established practice on which to draw allows for the selection of different but acceptable evaluation techniques, which can result in materially different measurements and can impact comparability. The nature and methods used to determine such information, as described in the applicable criteria, may change over time, and it is important to read the Entity's reporting methodology available in the footnotes on pages 81-90 of the 2023 Report on Sustainability.

Our conclusion

Our conclusion has been formed on the basis of, and is subject to, the matters outlined in this report. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion. Based on the procedures performed and evidence obtained, no matters have come to our attention to cause us to believe that the Entity's subject matter information, as described above and disclosed in the Reports, for the year ended December 31, 2022, is not prepared and presented, in all material respects, in accordance with the applicable criteria.

KPMG LLP

**Chartered Professional Accountants
Calgary, Canada
July 18, 2023**

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Forward-looking statements

Suncor's 2023 Report on Sustainability contains certain forward-looking statements and forward-looking information (collectively, "forward-looking statements") within the meaning of applicable Canadian and U.S. securities laws. Forward-looking statements in Suncor's 2023 Report on Sustainability include references to: Suncor's climate-related goal of becoming a net zero company by 2050 (scope 1 and 2); our 2030 interim target to reduce emissions by 10 megatonnes across our value chain; statements and beliefs about our strategy to be Canada's leading energy company and our climate objectives; that integrating sustainability into project development aims to improve how emerging policy, environmental and social considerations are factored into development decisions; that we are committed to improving environmental performance, thoughtful collaboration and meaningful stakeholder relationships that underpin our performance; that our coke boiler replacement project is expected to be commissioned in late 2024; expectations and beliefs about the Pathways Alliance; that we are addressing environmental and social effects of our procurement decisions while increasing the value to our business and generating mutual efficiencies with competitive businesses and suppliers; that we are seeking opportunities to reduce environmental impacts, support the communities where we work and live, and collectively contribute to economic growth; the belief that our Indigenous Business Participation Strategy supports our approach to meeting our commitments and supporting meaningful engagement, while ensuring agreements are mutually beneficial; that we are committed to improving air quality and reducing emissions near all our operations; the belief that supplementary data, obtained through fenceline monitoring, helps us manage facility-wide emissions more efficiently; that we seek to avoid, minimize, restore and/or offset impacts to biodiversity from our operations; that Suncor's operational plan is intended to protect biodiversity of the McClelland Lake Wetland Complex through mine closure; expectations about changes to fish habitat that will happen as a result of the Fort Hills mine development; statements about the goals, targets, beliefs and expectations of the COP15 Global Biodiversity Framework and Suncor's beliefs and goals related thereto; the belief that site-specific reclamation monitoring plans assess the components of biodiversity while vegetation regrows and ecosystems develop over time; that we work to mitigate and monitor the impacts of our operations, understand and reduce the cumulative effects of oils sands development and address regional biodiversity risk; the goal of the OSM Program to provide assurance to local communities, the province, the country and the international community that oil sands resources are being developed responsibly; that we see many opportunities to work with customers, suppliers, governments and other partners to help reduce emissions through out value chain; that we are advancing a suite of projects to reach our objective; that focus on reducing base business emissions with fuel switching, energy efficiency, carbon capture and storage, and other technologies; that we expect to spend approximately 10% of our annual capital budget, on average, through 2025 on projects aimed at lowering our emissions and advancing our low-carbon energy offerings that also provide strong, double-digit returns; that we are committed to operating our facilities safely and reliably, which includes trying to prevent environmental incidents such as spills and exceedances; that we continue to focus on asset reliability, improving internal critical controls, monitoring to decrease spills or regulatory exceedances, and when required, timely remediation; that we are committed to preserving and promoting biodiversity in all areas where we work; the expectation that the mineable resources at Base Plant's Millennium and North Steepbank Extension mines will be depleted in the next decade (2030s), and that we are working to add detail to our plan for reclamation and closure of the site, which will include further engagement with local Indigenous communities; that we plan to progress reclamation as quickly as possible when areas are no longer required for operations; the belief that through our reclamation work we are meeting the expectations that neighbours and regulators place on us to do it right; the expectation that we are progressing several tailings facilities to closure and will be increasing treatment capacity in the next few years; that we continue to focus on progressive reclamation and progress toward mine closure by advancing more tailings facilities to closure in a safe and environmentally responsible way; that we can play a valuable role in providing the additional energy needs associated with material circularity; the belief that increasing the use of lower-cost vanadium for the energy storage industry is anticipated to support increased integration of renewable electricity generation into the energy system; the expectation that this initiative will ultimately the low-cost energy storage solutions required to enable greater adoption of low-carbon sources of electricity generation; the belief that we are building a culture that reflects our values and is grounded in trust and inclusion; that our programs and resources aim to promote a psychologically safe environment and break the stigma around mental health issues; that Suncor is committed to preserving and protecting internationally recognized human rights; that we have begun updating our Human Rights policy in response to emerging trends and legislation in this area; the expectation that Syncrude will undergo an assessment in 2023 with respect to preventing child and forced labour; that we expect the federal government's Bill S-211, Fighting Against Forced Labour and Child Labour Act to come into force in 2024; the belief that we are building a culture of performance based on trust and inclusion; that we want to create a work environment where everyone can meaningfully contribute while feeling safe, valued and respected; the belief that ongoing development activities ensure leaders at all levels understand our expectations about inclusion and diversity and possess the necessary competencies; that we have set a goal to increase our Indigenous workforce; that we seek to build authentic, meaningful and mutually beneficial relationships with Indigenous Peoples; that Suncor aspires to progress the way we think and act to learn and better understand Indigenous perspectives and reflect Indigenous

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knowledge in what we do; that we are continuing with the Pathways Magazine Syncrude started; that we continue to learn and understand Indigenous ways of knowing and being through training and experiential learning opportunities; the belief that we continually work to improve and update our training content to keep it relevant; the expectation that our web-based Indigenous Awareness training course will be relaunched in 2023; that we are working to include Indigenous perspectives and traditional knowledge in our operations where possible; the expectation that members from local Indigenous communities will return to the Mildred Lake area in 2023 for planting trees and other vegetation in the area; that we want Suncor to be an inclusive and diverse work environment where everyone feels valued and respected and that we believe this supports strong business performance, differentiates us in our communities and helps us to attract and retain Indigenous employees who want to build meaningful careers for the long term; the belief that Indigenous youth and their voices represent the future; the belief that the Indigenous Youth Advisory Council supports young Indigenous leaders in developing their leadership potential while providing opportunities to participate in the energy system; expectations about the Indigenous Outdoor Gathering Space, its use and construction timing; the belief that we are executing a clear and accelerated plan to improve our safety performance and the areas it focuses on; the belief that applying HOP principles is a critical step in building a culture grounded in trust and inclusion and the belief that it will drive a safety culture change and statements about what that culture change will include; expectations about the Operational Excellence Leadership Experience; that frontline workers help create new systems as we seek additional opportunities for standardizing how we work; the expectation that we can minimize the risks of loss of primary containment incidents by focusing on strengthening our operational controls related to winterization; that we continue to implement new digital technologies across the enterprise to improve safety, productivity, reliability and reduce costs; that we will continue to work with government, communities and stakeholders to develop the policy and regulatory framework to safely release treated mine water from our oil sands sites; and the expectation that water data from our Terra Nova Floating, Production, Storage and Offloading facility will be reported in 2024; and the expectation that up to 50 black bears will be collared on or near our Firebag and Base Plant facilities with highly visible orange, yellow, and tan collars; that collision awareness system will be fully implemented at all Suncor mine sites; that fatigue management system will be fully implemented at all Suncor mine sites; the belief that we will continue to monitor our organizational model and total cost of workforce to achieve efficiency and effectiveness; and the belief that working together with Indigenous communities, we will identify water management solutions that respect their unique constitutional and treaty rights and acknowledge their deep connection with the land and water.

Some of the forward-looking statements and information may be identified by words like “expected”, “anticipated”, “will”, “estimates”, “plan”, “scheduled”, “intended”, “believes”, “projected”, “indicates”, “could”, “focus”, “vision”, “mission”, “strategy”, “goal”, “outlook”, “proposed”, “target”, “objective”, “continue”, “should”, “may”, “aim”, “strives”, “would”, “potential”, “committed”, “opportunity” and similar expressions. Forward-looking statements are based on Suncor’s current expectations, estimates, projections and assumptions that were made by the company in light of information available at the time the statement was made and consider Suncor’s experience and its perception of historical trends, including expectations and assumptions concerning: the accuracy of reserves and resources estimates; commodity prices and interest and foreign exchange rates; the performance of assets and equipment; capital efficiencies and cost-savings; applicable laws and government policies, future production rates; the sufficiency of budgeted capital expenditures in carrying out planned activities; the availability and cost of labour, services and infrastructure; the satisfaction by third parties of their obligations to Suncor; the development and execution of projects; the receipt, in a timely manner, of regulatory and third-party approvals; assumptions relating to demand for oil, natural gas, distillates, gasoline, diesel and other energy sources; the development and performance of technology; population growth and dynamics; assumptions relating to long-term energy future scenarios; and Suncor’s carbon price outlook. Forward-looking statements are not guarantees of future performance and involve a number of risks and uncertainties, some that are similar to other oil and gas companies and some that are unique to Suncor. Suncor’s actual results may differ materially from those expressed or implied by its forward-looking statements, so readers are cautioned not to place undue reliance on them. Risks, uncertainties and other factors that could influence the financial and operating performance of all of Suncor’s operating segments and activities include, but are not limited to, changes in general economic, market and business conditions, such as commodity prices, interest rates and currency exchange rates (including as a result of and the actions of OPEC and non-OPEC countries); fluctuations in supply and demand for Suncor’s products; the successful and timely implementation of capital projects, including growth projects and regulatory projects; risks associated with the development and execution of Suncor’s major projects and the commissioning and integration of new facilities; the possibility that completed maintenance activities may not improve operational performance or the output of related facilities; the risk that projects and initiatives intended to achieve cash flow growth and/or reductions in operating costs may not achieve the expected results in the time anticipated or at all; competitive actions of other companies, including increased competition from other oil and gas companies or from companies that provide alternative sources of energy; labour and material shortages; actions by government authorities, including the imposition or reassessment of, or changes to, taxes, fees, royalties, duties, and other government-imposed compliance costs; changes to laws and government policies that could impact the company’s business, including environmental (including climate change), royalty and tax laws and policies; the ability and willingness

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of parties with whom Suncor has material relationships to perform their obligations to the company; the unavailability of, or outages to, third-party infrastructure that could cause disruptions to production or prevent the company from being able to transport its products; the occurrence of a protracted operational outage, a major safety or environmental incident, or unexpected events such as fires (including forest fires), equipment failures and other similar events affecting Suncor or other parties whose operations or assets directly or indirectly affect Suncor; the potential for security breaches of Suncor's information technology and infrastructure by malicious persons or entities, and the unavailability or failure of such systems to perform as anticipated as a result of such breaches; security threats and terrorist or activist activities; the risk that competing business objectives may exceed Suncor's capacity to adopt and implement change; risks and uncertainties associated with obtaining regulatory, third-party and stakeholder approvals outside of Suncor's control for the company's operations, projects, initiatives and exploration and development activities and the satisfaction of any conditions to approvals; the potential for disruptions to operations and construction projects as a result of Suncor's relationships with labour unions that represent employees at the company's facilities; our ability to find new oil and gas reserves that can be developed economically; the accuracy of Suncor's reserves, resources and future production estimates; market instability affecting Suncor's ability to borrow in the capital debt markets at acceptable rates or to issue other securities at acceptable prices; maintaining an optimal debt-to-cash-flow ratio; the success of the company's marketing and logistics activities using derivatives and other financial instruments; the cost of compliance with current and future environmental laws, including climate change laws; risks relating to increased activism and public opposition to fossil fuels and oil sands; risks and uncertainties associated with closing a transaction for the purchase or sale of a business, asset or oil and gas property, including estimates of the final consideration to be paid or received, the ability of counterparties to comply with their obligations in a timely manner; risks associated with joint arrangements in which the company has an interest; the risk the company may be subject to litigation; the impact of technology and risks associated with developing and implementing new technologies; and the accuracy of cost estimates, some of which are provided at the conceptual or other preliminary stage of projects and prior to commencement or conception of the detailed engineering that is needed to reduce the margin of error and increase the level of accuracy. The foregoing important factors are not exhaustive.

Suncor's Management's Discussion and Analysis for the first quarter of 2023 dated May 8, 2023, its Annual Information Form, Annual Report to Shareholders, and Form 40-F each dated March 6, 2023, and other documents it files from time to time with securities regulatory authorities describe the risks, uncertainties, material assumptions and other factors that could influence actual results, and such factors are incorporated herein by reference. Copies of these documents are available without charge from Suncor at 150 6th Avenue S.W., Calgary, Alberta T2P 3E3, by calling 1-800-558-9071, or by email request to info@suncor.com or by referring to the company's profile on SEDAR at sedar.com or EDGAR at sec.gov. Except as required by applicable securities laws, Suncor disclaims any intention or obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Reclamation and revegetation plans

Reclamation Land is considered permanently reclaimed when landform construction and contouring, clean material placement (as required), reclamation material placement and revegetation has taken place. Land cannot be listed under permanent reclamation until revegetation has occurred which is reflective of the approved reclamation and revegetation plans.

Suncor

Suncor Energy Inc. has numerous direct and indirect subsidiaries, partnerships and joint arrangements ("affiliates"), which own and operate assets and conduct activities in different jurisdictions. The terms "we", "our", "Suncor", or "the company" are used herein for simplicity of communication and only mean that there is an affiliation with Suncor Energy Inc., without necessarily identifying the specific nature of the affiliation. The use of such terms in any statement herein does not mean that they apply to Suncor Energy Inc. or any particular affiliate and does not waive the corporate separateness of any affiliate.

Partnerships

The use of "partnership" throughout Suncor's 2023 Report on Sustainability does not necessarily mean a partnership in the legal context.

Currency

Unless otherwise stated, references to "dollars" or "\$" means Canadian dollars.

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