

2022

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**SUSTAINABILITY GOAL  
TARGETS AND  
PROGRESS**



**MERCER**

international

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transforming biomass into bioproducts  
for a more sustainable world



# TABLE OF CONTENTS

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Mercer's Sustainability Framework	3
Continuous Improvement in Environmental Performance	4
Mitigate Climate Change	8
Continuous Improvement in Resource Efficiency	12
Embrace Social Responsibility	15
Sustainable Forest Management	18
Enhance Stakeholder Engagement	19

## **INDEX**

*Mercer Celgar = MC*

*Mercer Forestry Services = MFS*

*Mercer Holz = MH*

*Mercer Mass Timber = MMT*

*Mercer Peace River = MPR*

*Mercer Rosenthal = MR*

*Mercer Stendal = MS*

*Mercer Timber Products = MTP*

*Santanol = SAN*

*Mercer International (Corporate) = MI*

Please note that Mercer Torgau is not included in this progress due to its acquisition in 2022.












# MERCER'S SUSTAINABILITY FRAMEWORK

Mercer integrates the United Nations' Sustainable Development Goals into our sustainability framework as we better understand the impact of our operations. This work enables us to set targets to advance our 2030 Aspirational Goals, focusing our continuous improvement approach on our key areas of influence and most significant opportunities for impact. We believe Mercer and other leaders in the forest sector are well-positioned to lead the transition to a low-carbon and circular future driven by renewable natural resources.

## Our Sustainability Framework

Continuous improvement in environmental performance	Mitigate climate change	Continuous improvement in resource efficiency	Embrace social responsibility	Sustainable forest management	Enhance stakeholder and indigenous engagement
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## Our 2030 Aspirations

 Elimination of process waste	 35% reduction in CO <sub>2</sub> e emissions and creating a pathway to net-zero by 2050	 10% reduction in water consumption	 5% improvement in resource efficiency	 80% of employees understand and believe in diversity, equity and inclusion commitment	 <1 total recordable injury rate <15 injury severity, and interdependent health and safety culture
 30% of new hires are women	 80% of fiber sourced from certified forests	 75th percentile employee engagement and survey response rate	 Deliver superior customer value proposition	 Balanced EBITDA	

## The UN's Sustainable Development Goals



# Continuous Improvement in Environmental Performance

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*Mercer's 2030 Aspiration*



**Elimination of  
Process Waste**

*Aligned UN Sustainable Development Goals*

**6** CLEAN WATER  
AND SANITATION



**15** LIFE  
ON LAND



<b>OPERATION</b>	<b>GOAL</b>	<b>TARGETS</b>	<b>PROGRESS</b>
<b>MC</b>	Improve effluent health to reduce TSS events	<p>Develop Effluent Overview page that considers all effluent health and sewer KPIs to enable clear and immediate problems or actions required within the effluent treatment system</p> <p>Engage with third-party consultants to evaluate and run operational trials to optimize effluent biology stability and treatment</p>	Both actions completed and have been successful. Year-long trial initiated to move the aeration basin from “Conventional Aeration” to “Extended Aeration”. Excellent success noted after nine months. Since then, TSS issues to the river have been a non-issue and only required one co-ag addition during 2-3 shifts.
	Decrease waste to landfill	<p>Review current dregs filter operation, Q4 testing/trials</p> <p>Engage various firms to identify potential development and end-use products for soil amendments</p>	<p>Study outlined operational areas dregs quality improvement. Actions to be implemented in 2023.</p> <p>External review was held by a company that had success with similar products for fertilizer and pelletizing plants. Unfortunately, cost-benefit is not viable.</p>
	Risk reduction of environmental damage	Introduce a wheeled harvester/forwarder team to partly displace bunching and skidding in operations	Deferred; however, a second winch and carrier were added to increase our ability to harvest steep slopes with less site disturbance and trail construction.
<b>MH</b>	Risk reduction of environmental damage	<p>100% of trucks and harvesting equipment use bio-hydraulic oil</p> <p>Add spill kits in all machines</p>	<p>80% of trucks and equipment operate with bio-hydraulic oil.</p> <p>Added spill kits in machines.</p>
	Risk reduction of environmental damage	100% of forklifts converted to use with bio-hydraulic oil	Converted all forklifts capable of conversion.
<b>MMT</b>	Reduce waste to landfill	Recycle program implemented in 2022	Recycling program implemented, starting with scrap metal and cardboard
	Risk reduction of environmental damage	<p>Asphalt lime rock storage</p> <p>Refurbish lime dregs / wood ash handling/bunker system</p>	<p>Deferred to Q3 2023</p> <p>Deferred to 2024</p>

<b>OPERATION</b>	<b>GOAL</b>	<b>TARGETS</b>	<b>PROGRESS</b>
<b>MPR cont.</b>	Reduce waste to landfill	Target land application of 2500 BDt	830 BDt (33% success)
		Target land application 1000 tonnes (wet) of wood ash	1249 tonnes (wet)
		Target 2000 tonnes (wet) of hot lime reuse by forestry	113 tonnes (6% success)
		Assess reduction of dregs since clarifier upgrade	Ongoing assessment
		Explore carbon sequestration plantation using biosolids and wood ash as fertilizer for enhanced growth	Pursuing a pellet project
	Reduction in water usage	Re-evaluate use of extraction and MCC screens on digester	Determined this was not feasible until reconstruction of the atmospheric diffusion washer is complete.
	Zero odor complaints	Project plan to direct all NCG streams for incineration in the recovery boiler to eliminate SO2 emissions	Project postponed
<b>MR</b>	Reduction of log yard noise	Construction at log dumping station to mitigate noise	Rescheduled to after 2023
	Reduction of COD	Reduction of COD load by at least 20%	The new secondary condensate B stripper that started in Q4 2021 resulted in a 60% COD reduction in the secondary condensate.
	Reduction of fresh water consumption.	Reduce by 25 l/s.	Up to 15 l/s of hot water was replaced with additionally stripped condensate.
<b>MS</b>	Reduction of waste disposal	-1.7% (in line with a 5% reduction over three years)	Reduction target not achieved. 6 Sigma CIP project for green liquor dregs improvements finalized with action plan

<b>OPERATION</b>	<b>GOAL</b>	<b>TARGETS</b>	<b>PROGRESS</b>
<b>MS cont.</b>	Reduction of fresh water usage	-1.7% (in line with a 5% reduction over three years)	12.9% reduction in process water consumption per ADMT achieved (2020-2022).
	Avoid higher waste disposal costs	Start project to replace fresh water in effluent treatment with concentrate  Secure quality level for current disposal class of green liquor dregs	Project 50% completed; to be finished in 2023.  Determined that reducing the dregs amount is simpler and more impactful. Second 6 Sigma CIP project in 2023 will optimize the lime mud filter to reduce lime carryover into dregs, further reducing dregs amount.
<b>MTP</b>	Enhance mill systems	Modernization of backup boiler	Urbas boilers reworked and improved. New filter system for waste gas is in place. Work on waste gas control system is ongoing.
<b>SAN</b>	Reduce risk of environmental damage	Full review of plantation and forest certification options by end of 2022	UEBT audit completed. Granted provisional UEBT membership, with a two-year window to move to full compliance and certification.
	Minimize water usage	Investigate recycling strategies for vacuum system and cooling water	Vacuum system water on a closed circuit, with water replaced as needed (or every quarter). Residual oil filter installed and in operation. pH and conductivity remains an issue, with manual process.
	Minimize chemical usage	Melon plantation weed management (420ha) done by goats by the end of 2022  Decrease chemical usage by a further 10%	Melon plantation fencing completed with 900 goats grazing. Set the maximum herd number to 1,000.  Chemical reduction decreased significantly, as no chemicals were applied in newly fenced goat areas. This gave an overall 45% reduction in chemical usage compared to 2021.

# Mitigate Climate Change

*Mercer's 2030 Aspiration*



**35% reduction in CO<sub>2</sub>e emissions and creating a pathway to net-zero by 2050**

*Aligned UN Sustainable Development Goals*

**7** AFFORDABLE AND CLEAN ENERGY



**13** CLIMATE ACTION





<b>OPERATION</b>	<b>GOAL</b>	<b>TARGETS</b>	<b>PROGRESS</b>
<b>MI</b>	Continue development of Decarbonization Strategy	Approval of 2030 GHG reduction target by the Science Based Target Initiatives (SBTi)	GHG emissions reduction targets approved in March 2022 by the SBTi with Scope 1, 2 and 3 targeted to be reduced by 35% by 2030.  New 300 million Euro ESG linked credit facility secured with matching GHG reduction targets.
	Reporting in alignment with TCFD	Launch aligned 2021 Sustainability Report	Full TCFD framework disclosure included in 2021 Sustainability Report.
<b>MC</b>	Reduce GHG emissions	Approval for Tanks Project for reduced variability at the digester, directly reducing natural gas use at the recovery, with an overall mill reduction target of 500k GJ	Tanks Project still on the books. Natural gas use was 2,069,277 GJ, with GHG Intensity approximately 276 kg CO <sub>2</sub> e/ADMT.
<b>MFS</b>	Reduce GHG emissions	Upgrade 10% of heavy equipment to Tier 4 emission standards	16% of heavy equipment fleet upgraded to Tier 4 emissions standards.
<b>MH</b>	Reduce GHG Emissions	Develop a process and calculate the CO <sub>2</sub> emissions per solid cubic meter/km. Technical innovations on the market will be examined.	Project is ongoing with subprojects (e.g. e-truck) planned.
<b>MMT</b>	Reduce GHG emissions	Purchase and install hi-speed roll up doors with sensors and/or automatic door openers with handheld controllers  Trade two non-operable electric golf carts for two running electric golf carts  Acquire an electric pickup truck for hauling  Examine feasibility of acquiring an electric forklift	Rescheduled to 2023  Implemented the use of a battery-operated golf cart and purchased a energy efficient (50 mpg) factory truck for maintenance by the end of 2022. Reduced our dependence on less fuel-efficient vehicles at the factory.
<b>MPR</b>	Reduction of GHG Emissions	Execute and commission chip plant	Chipping plant to be commissioned Q2 2023.

**OPERATION**

**GOAL**

**TARGETS**

**PROGRESS**

**MPR cont.**

Assess Climate Change Adaptation

Complete Vulnerability Assessment & Analysis 2022

Assessment and Analysis Complete, with adaptation strategies identified  
1) Annual Climate Change Review  
2) Culvert Sizing Review  
3) High Conservation Value Forests  
4) Wildfire Risk Assessments  
5) Climate Action Documentation  
6) Legacy Road Review  
7) Coarse Woody Debris Management  
8) Climate Change & Consultation

Reduction of GHG Emissions

By Q4, conduct a feasibility study to convert:  
(i) the propane-fueled forklift fleet to EV  
(ii) the pick-up fleet to EV

(i) Scheduled EV model replacements at 2 per year  
(ii) Insufficient EV charging stations in the region to warrant changing the pick-up fleet to EV models

Review emission sources:  
(i) Target less than 340 kg CO2e/ADMT for Stationary Combustion Sources  
(ii) Build GHG calculator with regular review at production meetings  
(iii) Install EPIC III controllers on power boiler precipitator for improved reliability of burning biomass  
(iv) Rebuild stoker pad for improved reliability of burning biomass in power boiler

(i) Not achieved. Reset the same target for 2023.  
(ii) In progress  
(iii) Deferred to Q2 2023  
(iv) Completed Q2 2022

Explore carbon sequestration plantation using biosolids and wood ash as fertilizers for enhanced carbon capture via enhanced growth

Pursue a pelletization project.

<b>OPERATION</b>	<b>GOAL</b>	<b>TARGETS</b>	<b>PROGRESS</b>
<b>MR</b>	Increase emission-free vehicles on-site	Increase number of emission-free vehicles from 20 to 25	4 electric cars were purchased to replace fossil fuel driven cars.
	Reduce GHG emissions	Define replacement alternatives for fossil fuels with biofuels, including required CapEx	Feasibility study to replace fossil fuel with black liquor gasification-based syngas was conducted, with first CapEx estimate delivered.
		Establish defined project milestones to ensure lignin plant erection in early 2023	Installation of the lignin extraction plant was executed according to the defined project schedule. Start up planned for Q3 2023.
<b>MS</b>	Reduce GHG emissions	Reduce fossil fuels utilized	109 kg CO2/ADMT reduction
		Plan for decarbonization of Lime Kiln, including Capex estimate	Preparing for next steps with pre-engineering with CAPEX approval.
<b>MTP</b>	Increase emission-free vehicles on site	Install additional charging stations for electric vehicles	
	Reduce GHG emissions	Develop accurate tracking system for GHG emissions for production / transport	
<b>SAN</b>	Reduce GHG emissions	Increase goats (at a minimum) to an extra 1000	Decision made to not to expand herd as current numbers were appropriate for amount of food stock.
		Research energy options to use post-harvest waste	Biochar research showed biowaste was insufficient to make biodiesel. Insufficient local demand due to the long-term lack of raw material and changing agricultural practices.
		Research options for hybrid and electric vehicles to replace aging fleet	Replaced diesel-powered forklift with electric one. Replaced high-mileage vehicles with efficient diesel utility vehicles, reducing consumption ~50% per

# Continuous Improvement in Resource Efficiency

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*Mercer's 2030 Aspiration*



**10% reduction in water consumption**



**5% improvement in resource efficiency**

*Aligned UN Sustainable Development Goals*



<b>OPERATION</b>	<b>GOAL</b>	<b>TARGETS</b>	<b>PROGRESS</b>
<b>MI</b>	Develop a methodology for determining key factors for energy measurement	Complete enterprise-level energy study to determine the methodology for energy calculations for each facility	Methodology still being determined.
<b>MC</b>	Optimize sludge dewatering systems	Complete updated review of systems, bottlenecks, and potential solutions for capital improvements	Review of the entire sludge dewatering circuit showed 11 options for improvement to vet further. A two-phased improvement approach was chosen as the highest potential success. Project planned for 2025.
<b>MFS</b>	Improve management of fleet	Add more monitored trucks to fleet and use telematic reports to improve fuel usage.	Three monitored trucks using telematics added to the chip hauling fleet. Monitoring current system for effectiveness on reporting to improve fuel usage.
<b>MH</b>	Improve access to competitive wood supply	Construction on two terminals. Further evaluation at other possible project sites.	Construction and further planning of terminals is underway. Land purchased and new sites have been taken under consideration.
	Optimize wood delivery process	Implementation of an app between Mercer and delivery partners	App is finished and test trials will start within the first half of 2023
<b>MMT</b>	Optimize wood chip production	Complete evaluation on the potential effectiveness of installation of a slow-speed, high-torque grinder at the CNC's outfeed	Project delayed until 2023.
	Increase wood chip recovery	Implement a wood waste collection program by end of 2022.	Chip management now includes sander dust, which normally was sent to landfill. Chips and shavings are captured and sent to a particle board plant in Oregon. Efficiencies are based rate of production versus volume of chip sold.

<b>OPERATION</b>	<b>GOAL</b>	<b>TARGETS</b>	<b>PROGRESS</b>
<b>MMT cont.</b>	Reduce energy consumption	Evaluate the energy consumption potential of the hog system: 1) starting up daily vs. continuously run and 2) used daily vs. used once intermittently	Control of the factory environmental air louvers modified to improve energy use. Less reliance on air conditioning and heating due to air louvers being opened less.
<b>MPR</b>	Increase yield from the forest	8.5% yield improvement from hardwood forest	Chipping plant constructed in 2022. Plant commissioned in Q1 2023, full production in Q2.
	Reduce non-renewable energy use	Trial prototype chip van and deploy 10-axle log trucks	15 of 22 log trucks deployed. Trial of chip van delayed due to manufacture supply chain challenges. Prototype to be delivered May 2023.
<b>MR</b>	Reduction of specific wood consumption	Implement debarking drum supervisory controls to reduce wood losses to the bark fraction, with an improved in yield from 5.2 m <sup>3</sup> /ADMT to below 5.1	Debarking supervisory controls started in Q4 2022. Reduced wood losses documented in guarantee test run. However, overall target of 5.1 m <sup>3</sup> /ADMT not achieved for other reasons.
<b>MS</b>	Reduce energy consumption	Minimize compressed air consumption and reduce electrical energy consumption by 30%	
<b>MTP</b>	Reduce energy consumption	Reduce forklift traffic by 33%	
		Reduce electrical and thermal energy by 1.3%	
<b>SAN</b>	Increase natural pest control	Improve insect mix and reduce aerial chemical use in green rows	Completed, with ongoing monitoring.

# Embrace Social Responsibility

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*Mercer's 2030 Aspiration*



**80% of employees understand and believe in diversity, equity and inclusion commitment**



**<1 total recordable injury rate <15 injury severity, and interdependent health and safety culture**



**30% of new hires are women**

*Aligned UN Sustainable Development Goals*

**5 GENDER EQUALITY**



**8 DECENT WORK AND ECONOMIC GROWTH**



## ALL MERCER OPERATIONS

### GOAL

Improve Health & Safety performance, including that of contractors working under our direction

### TARGETS

Near Misses are defined at the mill level

Inspection/Observation practices are defined at mill level

Expand leading KPI measuring

TRIR < 2

Severity < 60 with understanding being further defined

SIF philosophy explained

Reduction in claims cost experience

Advancement on Bradley Curve

Increase employee engagement

Rollout employee engagement results to management teams

Develop and initiate local-level action plans to address areas for improvement

Increase overall participation by 10% for the next employee survey (expected 2022)

### PROGRESS

Near Miss better defined at the mill level, with Property Damage separated out of Near Miss reporting.

Better defined at the mill level

Expanded measuring

TRIR = 2.07

Severity < 44.98

All incidents are now evaluated for SIF/SIFp through the HendrikS safety system's list of precursors. SIF/SIFp incidents are all shared across the organization through one pager flash reporting and fully investigated.

Advances made in North America. Evolving a rudimentary return-to-work program in Europe with HR support.

Completed initial assessment on the Bradley Curve with a leadership workshop and improvement plan for Peace River Logging.

Increased GDPR stringency led us to defer the second employee survey to 2023 to address the regulatory requirements in order to maintain both the integrity of the survey and robustness of the reporting (i.e. at the supervisor level).

All operations have planned and executed activities to drive local-level results and increase engagement.



## ALL MERCER OPERATIONS

### GOAL

Develop a culture that supports diversity & inclusion

### TARGETS

Complete “Women in the Workplace” pipeline analysis for root cause; select and implement tactics to overcome bias in the talent system

### PROGRESS

Diversity, Equity and Inclusion governance structure updated to create a leaner, more senior Global Council. Steps were taken to establish Regional or 'Country' councils to promote better idea and best-practice sharing between local workgroups.

Develop and implement DE&I action roadmap

Roadmap created/updated for DE&I 2022.

Conduct unconscious bias / conscious and inclusion training

Unconscious bias training continued in 2022 to ensure all Global Council, Local Workgroup and Senior leadership members were trained. A total of 64 people were trained in 2022.

Accelerate leadership development.

Pilot performance management program in place

Strengths-based performance management pilot deferred to February 2023

Keep talented and highly-qualified employees within Mercer

Leadership Development Assessment completed

Leadership development efforts reviewed. Identified the need for an integrative leadership competency model based on critical business drivers.

Mercer Leadership Program (MLP) resumed with the new 2021 cohorts.

MLP resumed after a pause during the peak pandemic years. Module 2 for the most recent cohort of 21 participants was completed. Establishing a new cohort was deferred until 2023.

Succession plans updated & extended

Succession plans were updated and included replacement planning for intermediate leaders. Individual review sessions conducted at the mill level before consolidating results for corporate-level review.

Track % of target employees with a documented development plan

Uncertain % of employees with a documented development plan (reporting structure to be determined at the mill-level)

# Sustainable Forest Management

*Mercer's 2030 Aspiration*



**80% of fiber sourced from certified forests**

*Aligned UN Sustainable Development Goals*



## ALL MERCER OPERATIONS

### GOAL

Support sustainability in forest management and wood sourcing.

### TARGETS

Increase the percentage of certified wood from 69% to 70%. The aspirational goal is 80% by 2030.

### PROGRESS

The Mercer wood sourcing performance for 2022 was 69% certified

# Enhance Stakeholder and Indigenous Engagement

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*Mercer's 2030 Aspiration*



75th percentile employee engagement and survey response rate



Deliver superior customer value proposition

*Aligned UN Sustainable Development Goals*

**8** DECENT WORK AND ECONOMIC GROWTH



**12** RESPONSIBLE CONSUMPTION AND PRODUCTION



**FOCUSES**

**GOAL**

**TARGETS**

**PROGRESS**

**Indigenous Relations**

Increase Indigenous representation and participation in forest management planning for our Alberta operations

Leverage success of Phase 1 TLU to gain additional participation in TLU project.  
  
Incorporate Indigenous knowledge and values in ongoing forest management planning, discussions and consultation.

Phase 1 completed with reporting requirements outstanding. Phase 2 project under development with submission in Q1 2023. Indigenous Place Names Map initiated.

Increase Indigenous representation and participation in economic opportunities through recruitment, inclusion, partnerships and supply chain participation

Deliver Indigenous Awareness training across all MPR teams to foster inclusive environment.  
  
Leverage Indspire and OYEP partnerships.

Indigenous training across all MPR teams initiated.  
  
Renewed OYEP Partnership for 5 years.  
  
Continued contribution agreement for Indspire.

**Procurement**

Strengthen the sustainability of our supply chain

Get corporate alignment on audit questionnaire. Each Mercer operation will audit key vendors based on structured questionnaire

Completed at the Canadian pulp mills, with the exception of the formal training of the buyers. Gained great experience and learnings.

**Sustainability**

Enhance the availability of ESG information to investors

Utilize external platforms with regular ESG-centric updates for industry access

Completed 2021 Sustainability Report with GRI, SASB, TCFD disclosure frameworks

Enhance global partnerships and government engagement to progress on the UN SDGs

Increase collaboration amongst industry associations and future-forward organizations

Became a signatory of the UN Global Compact in 2022  
  
Validated our climate change goals with SBTi  
  
Increased collaboration with industry associations in North America and Europe

**Stakeholder Engagement**

Improve local stakeholder engagement.

Each Mercer operation to track local engagement initiatives

Kicked off the GFGF project by building a plan for 2023  
  
50,000 euro Ukraine relief donation  
  
First year Indspire Scholarship / Bursary recipients  
  
MH, MR, and MTP participation in 2nd Company Run, increasing participation from 29 to 54 employees



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