

2023

**SUSTAINABILITY
GOALS, STRATEGIES,
AND TACTICS**



MERCER

international

transforming biomass into bioproducts
for a more sustainable world



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Mercer Forestry Services = MFS

Mercer Holz = MH

Mercer Mass Timber = MMT

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Mercer Torgau = MT

Santanol = SAN

Mercer International (Corporate) = MI












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 ₂ 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

Mercer's 2030 Aspiration



**Elimination of
Process Waste**

Aligned UN Sustainable Development Goals

6 CLEAN WATER
AND SANITATION



15 LIFE
ON LAND



OPERATION	GOAL	STRATEGY	TACTICS
MC	Improve effluent treatment	Enable MLSS (mass of bugs) adjustment to maintain a lower Food-to-Mass Ratio, moving from “Conventional Aeration” to “Extended Aeration”	Change operating parameters to force the biology to shift into the endogenous zone (food chain cannibalism) to improve flocc formation & settling, increasing ability to treat BOD/COD and reducing load on sludge dewatering
		Improve COD sampling at the primary clarifier outlet	Install a composite sampler on the primary clarifier outlet
		Improve effluent system instrumentation to allow closer monitoring and reduce chemical losses to sewer system	Install flow meters for the EOP discharge, combined EOP & fiberline trenches, and the outlet of the digester sump
		Eliminate losses to effluent system by reconfiguring the Chlorate/Methanol Flush Sequence line when flushed (i.e. every time the generator goes down)	Installation of a flow control auto valve to meter the line contents into the generator instead of dumping it to the sewer system. Reconfiguration required in DCS and installation of a check valve.
	Decrease uncontrolled venting	Improve main DNCG fan reliability to decrease risk of odor complaints	Install a VFD
MFS	Reduce risk of environmental damage.	Protection of soil integrity and water quality	Use harvesting equipment known to have less impact on ground disturbance.
MH	Mitigate effects of climate change on the forest	Help reforestation in areas affected by bark beetle and drought	Use the Growing Forests, Growing a Future campaign to provide tree seedlings to forest owners
		Prevention of soil and water pollution	Use biodegradable oils in the hydraulic systems for our trucks and harvesting equipment Install spill kits for all harvesting equipment

OPERATION	GOAL	STRATEGY	TACTICS
MMT	Reduce risk of environmental impacts	Measure gas usage from operating the CDK	Install flow meter at the inlet to the gas burner
		Reduce residual material overflow from truck bin to truck	Install curtains inbound and outbound of the truck bins
MPR	Improve waste management performance	Prevention of soil and water pollution	Install 3 additional groundwater wells
			Pave lime rock storage area
		Renew environmental operating approval	Secure regulatory approval for waste management practices
	Improve wastewater treatment performance	Develop additional monitoring and troubleshooting tools	Characterize influent and effluent COD fractions into: (1) non-biodegradable soluble nbsCOD; (2) non-biodegradable particulate nbpCOD; (2) readily-biodegradable rbCOD; (4) slowly biodegradable sbCOD.
			Develop BOD effluent discharge predictor as an early warning for treatment system upsets.
			Implement influent, mid-point and effluent sulfide monitoring to minimize sulfide-induced filament blooms.
		Renew environmental operating approval	Secure regulatory approval for effluent management practices
Improve air emission performance		Reduce power boiler opacity readings and particulate carryover	Install EPIC III supervisory control system for power boiler precipitator
			Replace power boiler multi-clone
			Refurbish power boiler wood ash handling system

OPERATION	GOAL	STRATEGY	TACTICS
MPR cont.	Improve air emission performance (cont.)	Reduce power boiler opacity readings and particulate carryover (cont.)	Commission new woodroom to improve hog fuel quality supply to power boiler
		Renew environmental operating approval	Secure regulatory approval for air emission practices
MR	Reduce water consumption	Recirculate wastewater partial stream to replace freshwater	Feasibility study to define technical requirements and timeline
	Reduce wastewater COD	Additional treatment of a wastewater partial stream	Feasibility study to define technical requirements and timeline
MS	Reduce waste disposal	Identify high-cost areas for waste disposal to combine cost savings with environmental performance	Reduce lime carry over into dregs
MTP	Improve air emissions	Identify improvement areas in emission systems	Conduct project on waste gas control system
MT	Reduce plastic packaging for biofuels by 30%	Review options with suppliers	Test new, thinner packaging foil in production and roll out with the supplier
SAN	Reduce risk of environmental damage	Assess the outcomes of the UEFT report and scheduled follow-up meeting in March and determine response	Evaluate business impacts and ensure correct data recorded, with analysis done to show completion of targets
	Minimize chemical usage	Research best practice for weed and pest management solutions for plantation location and environment	Audit chemical use to ensure usage is in line with industry best practice Identify opportunities to replace or supplement chemical plant protection strategies with cultural, physical or biological control options Prioritize options to replace the use of prohibited or restricted chemicals on the UEFT list

Mitigate Climate Change

Mercer's 2030 Aspiration



35% reduction in CO₂e emissions and creating a pathway to net-zero by 2050

Aligned UN Sustainable Development Goals

7 AFFORDABLE AND CLEAN ENERGY



13 CLIMATE ACTION



OPERATION	GOAL	STRATEGY	TACTICS
MI	Continue development of Decarbonization Strategy	Evaluate current progress to achieve Science Based Target initiative GHG reduction milestones	Set targets of Decarbonization Strategy for each facility for 2023 Evaluate technologies for decarbonizing
	Align financial disclosure with TCFD framework	Align financial reporting and Sustainability Report with TCFD framework	Expand our Climate Change Scenario Analysis to include all core functions and use the Network for Greening the Financial System models for assessing climate risk and opportunities
	Reduce Scope 3 GHG emissions	Collaborate with supply chain partners to reduce GHG emissions	Enhance our data collection processes for calculating Scope 3 emissions
MC	Reduce GHG emissions	Reduce idle time on heavy equipment	Install governing devices that limit/reduce idle time
		Reduce natural gas use in the recovery & power boilers by reducing mill operating variability through improved reliability	Invest in comprehensive initiative to dramatically improve mill reliability
		Shut down three mobile chipping operations	Woodroom upgrade project to greatly improve throughput on the small log line
		Avoid and minimize NG co-firing with proactive STG3 management (timely shuts around RB steam production or running during upsets)	Eliminate Pareto NG co-firing periods where a lack of steam to operate STG3 results in fossil fuel usage
			Daily mill soda management to remain on target and maintain operation flexibility

OPERATION	GOAL	STRATEGY	TACTICS
MC cont.	Reduce GHG emissions (cont.)	Implement the use of rail for transportation of inbound fiber supplies	Invest in infrastructure and rail cars for the transport of chips from the US to Canada
MFS	Reduce GHG emissions	Upgrade mobile equipment fleet to a Tier 4 emissions standard	Change out heavy equipment without emissions after-treatment
		Upgrade trucking fleet to a Tier 4 emissions standard	Change out trucks without emissions after-treatment
MH	Reduce GHG Emissions	Continuation of adopting climate-friendly equipment, procedures, and behavior	Develop a process and calculate the CO2 emissions per solid cubic meter/km.
MMT	Reduce GHG emissions	Reduce natural gas use at the kiln	Utilize natural air drying
		Reduce use of roof-top-unit heaters (natural gas fired)	Analyze current and past HVAC reliance/use for the factory and identify overuse (daily/weekly/monthly) versus production.
MPR	Reduce GHG emissions	Reduce GHG from combustion sources (lime kiln, power boiler, recovery boiler)	Reduce natural gas co-firing in the power boiler by generating 95% steam from hog fuel
		Covert propane-fuel forklift trucks to EV	Purchase/lease two EV forklift trucks
		Start up new Peace River woodroom	Complete construction and commission woodroom
		Assess Climate Change Adaptation	Climate Change Adaptation Plan
MR	Replace fossil-based energy	Increase supply of bioenergy to power grid	Improve power boiler emission performance and produce 95% steam from hog fuel
		Target 381,520 MWh generation from co-gen operation.	
MR	Replace fossil-based energy	Green electricity generation	Optimize gross electricity production

OPERATION	GOAL	STRATEGY	TACTICS
MR cont.	Reduce GHG emissions	Replace fossil fuel at the lime kiln	Define and describe process alternatives to replace fossil fuel with biofuel at the lime kiln
		Reduce lime kiln-specific energy consumption	Further optimization of lime kiln operation
		Develop bio-based alternatives to fossil-based chemicals	Installation of a demonstration plant to extract up to 1 tonne/day of lignin from black liquor Installation of a lignin lab to conduct further research
MS	Reduce GHG emissions	Avoid fossil fuel usage	Further optimization of lime kiln operation
MTP	Increase electric efficiency of power generation	Produce more electric power even when less thermal power is needed	Optimize turbine control system
MT	Improve air quality	Assess solutions in production line	Complete installation of the formaldehyde scrubber for block production
SAN	Reduce GHG Emissions	More efficient use of tractors and vehicles	Strategically plan operations to reduce plant and equipment movements (excluding harvest)
		Eliminate use of diesel generators for debarking at KNX	Investigate cost and methodology Install hardwire to fuse box to utilize hydro electric power

Continuous Improvement in Resource Efficiency

Mercer's 2030 Aspiration



10% reduction in water consumption



5% improvement in resource efficiency

Aligned UN Sustainable Development Goals



OPERATION	GOAL	STRATEGY	TACTICS
MI	Improve sustainable procurement	Increase the EcoVadis ESG score for sustainable procurement	Work on a process with ISN to audit our vendors (each vendor must provide a score relative to MC ecofriendly production)
MC	Improve wood fiber yield	Increase fiber use efficiencies through waste reduction and customer improvement programs	<p>Increase Digester kappa from 24 to 30</p> <p>O2 Delig improvement</p> <p>Commission rejects recycle system</p> <p>Invest in new rolls across primary and secondary chip screens</p> <p>Improved CQI in procurement: working with suppliers</p> <p>Improve cleaning and thickening in Machine Room</p>
MFS	Improve management of fleet	Utilize telematics to monitor fuel usage, speed, and routes driven	Add more monitored trucks to the MFS fleet in 2023
MH	Improve access to competitive wood supply	Develop network of wood terminals to increase rail access to sustainable wood supply over the next 5 years	<p>Implementation of up to 5 terminals</p> <p>Organize new processes to feed new terminals</p> <p>Optimize rail logistics new terminals</p>
	Optimize wood delivery process	Develop an app in tandem with terminals to digitalize the delivery process	Implementation of an app that transfers data between Mercer and delivery partners to optimize the delivery process of wood
MMT	Reduce water consumption	Target facility humidification system run times	Only use humidification system during CLT production

OPERATION	GOAL	STRATEGY	TACTICS
MMT cont.	Improve lumber recovery	Improve efficiency of sort line scanning capabilities, allowing for decreased sort line lumber loss/rejection	Engage manufacturer (USNR) for scanning and grading program improvements
MPR	Reduce non-renewable energy use	Adopt 10 axle trucks for hardwood cut-to-length pulp logs & chip trucks	Trial prototype chip van, used in conjunction with 10 axle trucks
	Increase yield from the forest	Construct modern efficient chipping plant	Improve debarking while reducing whitewood losses Improve chip quality to increase cooking yields
MR	Reduction of specific wood consumption	Reduce wood losses through debarking optimization	Monitor results of implemented debarking drum supervisory controls
MS	Reduce energy consumption	Substitute more electrical energy	Run heat adsorption chiller for MCC HVAC
		Reduce heat losses in steam system	Implement new steam trap design
MTP	Reduce energy consumption	Reduce total electric energy consumption in the mill	Implement new energy data software "deZem", work on biggest energy consumers
	Maximize value of products	Improve recovery rate	Enhance wood grading capabilities with improved technology
MT	Increase heat efficiency of belt dryer by 35%	Revamp the belt dryer system	Complete all six phases for a full revamp of the belt dryer
SAN	Increase sandalwood oil yield	Research sandalwood desapping with Italian machining manufacturer	Complete research and work with Forest Equipment to develop equipment

Embrace Social Responsibility

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

Increase employee engagement

STRATEGY

Advance Road to Zero culture through well-managed process and behavioral safety prevention programs.

Implement framework for Process Safety Management in pulp mills and advance Process Safety prevention efforts in all operations

Empower Mercer leaders to manage health and safety with an integrated approach of Mercer Values, Employee Engagement and DE&I

Support ill and injured workers through an effective return-to-work management

Ensure adequate emergency response measures are in place

Increase participation in the employee engagement survey to 60%

Improve understanding of engagement science and survey design

Increase motivation of leaders to lead results-based action planning with their teams.

TACTICS

Assess culture progression with Bradley Curve reassessments

Maintain compliance with all regulatory requirements.

Define/apply best practices to continue understanding and managing risk in operations

Advanced Process Safety Management

Implement Mercer standards at the local level

Define Corporate Safety Management System Framework

Expand and support return-to-work and mental health programs

Conduct audit of Equipment Safeguarding and local Emergency Response Plans

Advance Health and Hygiene aspects

Conduct second survey administration

Remove barriers to survey participation (i.e. email/computer access)

Increase survey promotion through a communication and education campaign

Provide comprehensive post-survey support to team leaders in taking action based on survey results

ALL MERCER OPERATIONS

GOAL

Improve commitment and transparency in sustainability efforts

Build a more inclusive culture

Accelerate leadership development

Improve sustainability and resilience of Mercer's supply chain

STRATEGY

Increase alignment and engagement with UN Sustainable Development Goals

Refresh our DE&I strategy with a focus on inclusion

Assess or measure the current level of inclusiveness in our business through a maturity assessment, inclusion assessment, or both

Develop a talent strategy linked to the overall business strategy, based on business drivers and key leadership challenges, that focuses on accelerating leader development

Ensure that all our key vendors accept the Sustainable Purchasing policy as written and provide a Vendor score for tracking purposes within our Vendor management system

TACTICS

Become signatory to the UN Global Compact

Produce 2023 Sustainability Report on our progress for SDGs

Leverage the results of the maturity/inclusion assessment to inform site-specific and company wide actions to improve

Finalize the establishment of Regional or 'Country' councils to enhance the governance structure and process

Establish a leadership competency framework

Integrate a competency framework into talent-related processes (i.e. acquisitions, recruiting, assessment, development planning, succession planning, etc.)

Continue the Mercer Leadership Program for the existing participant cohort of high potential leaders

Establish a new cohort of high potential leaders to begin training in the Mercer Leadership Program

Working with our vendor management system ISN, we will target companies to ensure compliance by regular check ups and coordination within our system

Sustainable Forest Management

Mercer's 2030 Aspiration



80% of fiber sourced from certified forests

Aligned UN Sustainable Development Goals



ALL MERCER OPERATIONS

GOAL

Improve transparency on biodiversity in sustainable forest management

Support sustainability in forest management and wood sourcing

STRATEGY

Increase understanding on how Mercer's operation will protect and enhance biodiversity and meet the Taskforce for Nature-related Financial Disclosure (TNFD) requirements

Source our wood based on our policy.

Maintain long-term supplier relationships

TACTICS

Establish biodiversity disclosure and reporting framework following the TNFD requirements

Increase percentage of certified wood

Include, respect, and foster relationships with small landowners

Enhance Stakeholder and Indigenous Engagement

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	STRATEGY	TACTICS
Indigenous Relations	Increase Indigenous representation and participation in forest management planning for our Alberta operations	Engage Indigenous Communities in Phases 1 and 2 of the TLU project to enhance participation in planning, consultation and sustainable forest management (SFM)	Leverage Phase 1 TLU success to gain participation Incorporate Indigenous knowledge and values in ongoing forest management planning and consultation
	Increase Indigenous representation and participation in economic opportunities in our Alberta operations through recruitment, partnerships and the supply chain	Continue implementation of CCAB PAR framework to enhance accountability for Leadership Actions, Employment & Training, Business Development and Community Relationships	Deliver Indigenous Awareness training to all MPR teams Engage key communities to co-develop goals and strategies Leverage OYEP partnerships
	Establish relationships with Indigenous groups in British Columbia	Foster relationships with Indigenous groups within MC's sourcing area	Meet with two Indigenous groups within supply area bi-annually
Procurement	Increase business relationships with Indigenous Communities, community forests, woodlots and small tenure holders	Establish a baseline metric to evaluate fiber sourcing performance from social license tenures	Track and monitor the origin of fiber with an emphasis on increasing the amount from social license tenures
	Strengthen the sustainability of our supply chain.	Share our Sustainable Procurement Policy with our key suppliers. Train internal stakeholders, e.g. buyers (both in North America and Germany)	Each Mercer operation audits key vendors based on a structured questionnaire aligned with corporate
Sustainability	Embrace double materiality disclosure	Increase stakeholder engagement (including surveys) to better understand Mercer's impact on key issues	Conduct Material Assessment
	Enhance the availability of ESG information to investors	Publish Mercer's 2022 Sustainability Report	Utilize external platforms with regular ESG-centric updates for industry access
Stakeholder Engagement	Improve local stakeholder engagement	Engage employees and community members through communications, events, and group fundraisers	Plan the Growing Forests, Growing a Future project Donate to and fundraise for causes aligned to Mercer and its employees' values



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