2020
SUSTAINABILITY REPORT

tamarack valley ENERGY

Future Forward Energy

TSX: TVE

CONTENTS

Stakeholder Message . . . 3

About Tamarack . . . 5

Corporate Overview . . . 6

Sustainability Program . . . 7

Operating with Integrity . . . 11

Governance Priorities . . . 12

Health & Safety . . . 14

Engagement & Social Impact . . . 16

Community Engagement . . . 17

Indigenous Partnerships . . . 19

Our People . . . 21

Environmental Stewardship . . . 23

Land & Biodiversity Preservation . . . 24

Water Management . . . 27

Emissions Management . . . 29

Climate Change Risk Management . . . 31

Data & References . . . 33

Abbreviations, Conversions & Definitions . . . 42

Advisories . . . 43

This report includes reference to the Global Reporting Initiative ("GRI") Standards (GRI Consolidated Standards, 2020 and G4 Sector Disclosure – Oil & Gas, 2012) for the sustainability issues that were deemed relevant to stakeholders. This report includes standard suggested disclosures but does not include all of the requirements to be considered in full accordance with GRI Standards. For a full list of associated disclosures, please refer to the "Data & References" section of the report titled "GRI References" for more information. This report is based on an annual reporting cycle and, unless specifically noted, is as of December 31, 2019 and compared to the same period in 2018 and 2017.

WATCH VIDEOS RETURN TO CONTENTS

A Message to Our Stakeholders

At Tamarack Valley Energy Ltd. ("Tamarack"), we are proud of the progress we've already made in our environmental, social and governance ("ESG") practices, striving to improve our performance every year. Our journey to develop long-standing Indigenous partnerships and operational innovations is a hallmark of our organization.

We take pride in being a responsible steward of our environment, our people, our assets and our capital. We've always believed that economic growth, the well-being of our society and environmental responsibility are not mutually exclusive concepts. We strive to factor sustainable ESG considerations into every decision we make because we know it will enable the long-term resilience of our organization, our planet and our people. It's not just the right thing, it's the smart thing.

Tamarack will continue to invest in long-term projects designed to improve our operational performance, enhance our sustainability and, ultimately, deliver positive results for all stakeholders.

With a focus on increased transparency, a corporate-wide ESG culture and continuous improvement of key sustainability metrics, we are excited to drive forward as a leader in responsible operations and a wholly accountable corporate citizen. Integrating ESG into all aspects of the organization is key to our long-term goals and is a foundational pillar of our operational and financial growth.

Brian Schmidt (Aakaikkitstaki)
President, CEO & Director

Steve Buytels
Chief Financial Officer

"Corporate social responsibility needs to be integrated into governance at both the Board level and throughout the organization."

– Marnie Smith, Independent Director

"We believe that Tamarack should be a best-in-class corporate citizen, striving to reward shareholders while improving the lives of its stakeholders and acting responsibly to ensure the health of our planet."

– Floyd Price, Chairman of the Board

Report on ESG for Our Stakeholders

On behalf of the Tamarack Board of Directors, Executive Team and all employees, I am proud to provide our stakeholders with the inaugural Sustainability Report.

Although this is our inaugural public report, ESG has been an integral part of Tamarack's practices over the last number of years. Examples of this can be seen in the material reduction in methane emissions; the utilization of primarily recycled water in our operations and the continued support of our Indigenous Partners.

Our sustainability plan, including this report, aspires to best-in-class industry practices with guidance from globally accepted frameworks.

Tamarack will continue to evolve and improve its ESG practices as it focusses on a sustainable future for the Company and the world in which it operates.

Jeff S. Boyce
Director and Chairman of Environment, Safety and Sustainability Committee

The ESG Team

Our ESG project team represents ten individuals from across the organization, with a wide range of age, experience, background and most importantly perspective. Who knew that creating our inaugural report in the middle of a work-from-home global pandemic could be such a rewarding experience? The circumstances, and the uncertainty still on-going six months into the pandemic, impressed upon us the importance of corporate resilience and preparing for any possible outcome. From our first meeting, we were excited to help set the organization apart through a proactive approach to sustainability and risk management and to ensure that we effectively and accurately communicated the Tamarack story to our broad range of stakeholders.

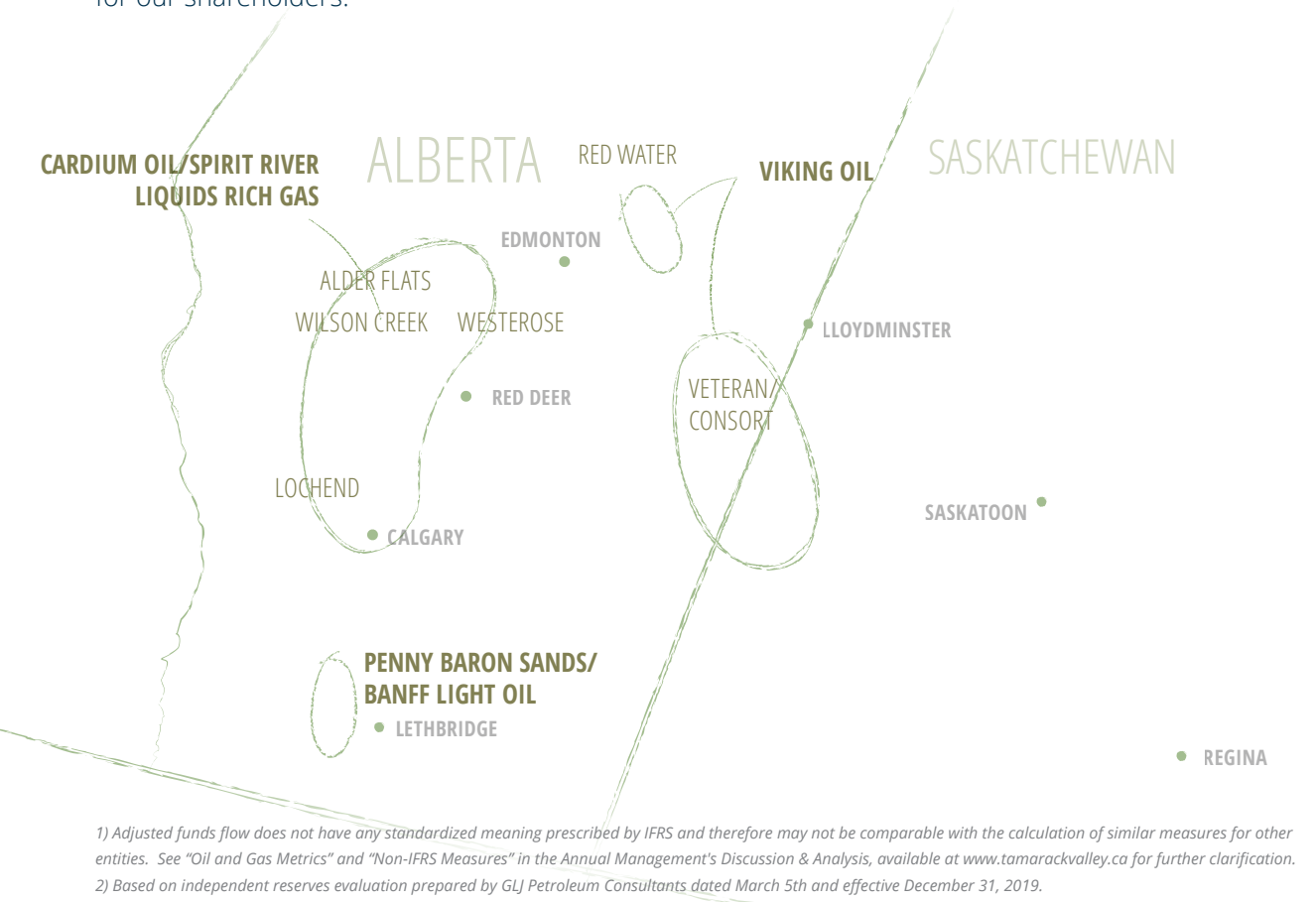
The power of bringing so many diverse perspectives together added value to this inaugural report but even more importantly, it will anchor our work throughout the organization as we continue to move forward to integrate sustainability into our everyday business.

On behalf of the ESG team,

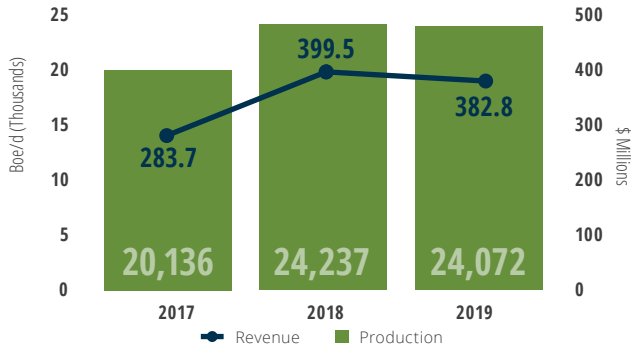
June-Marie Innes
Director, Finance & Sustainability

ABOUT TAMARACK

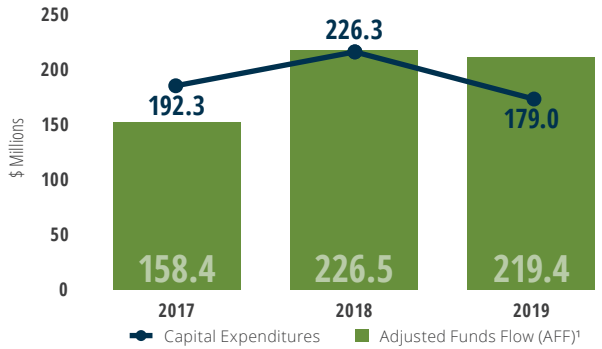
Tamarack is an oil and gas producer based in Calgary, Alberta. We are focused on the development and acquisition of repeatable and predictable long-life resource plays in the Western Canadian Sedimentary Basin. Tamarack's business model is centered around stable, full-cycle growth and driving long-term value through free cash flow. In the following pages, you'll read about the many initiatives we have underway to create stable growth, contribute to our communities and, ultimately, drive long-term value for our shareholders.



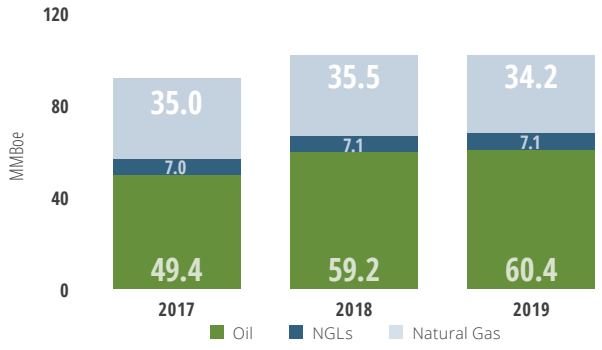
STRONG REVENUE WITH STABLE PRODUCTION



RISING AFF[1] WITH REDUCED CAPEX



TOTAL PROVED + PROBABLE RESERVES[2]



1) Adjusted funds flow does not have any standardized meaning prescribed by IFRS and therefore may not be comparable with the calculation of similar measures for other entities. See "Oil and Gas Metrics" and "Non-IFRS Measures" in the Annual Management's Discussion & Analysis, available at www.tamarackvalley.ca for further clarification.
2) Based on independent reserves evaluation prepared by GLJ Petroleum Consultants dated March 5th and effective December 31, 2019.

Corporate Overview

As a light oil producer, Tamarack holds an emissions intensity advantage compared to many other crude oil production types across North America and the World. In fact, at 0.028 tCO_2e/bbl, the Scope 1+2 emissions of our Veteran area compete with some of the lowest intensity barrels in North America. Despite our relative advantage, Tamarack has always worked to maximize solution gas conservation and to implement operational programs to reduce emissions - and we will continue to do so into the future. Flip to the Emissions Management section on page 29 to learn more.

Resilience Supports Sustainability

We seek to operate at the intersection of economic value and corporate social responsibility to ultimately assure resilience in a changing world.

In 2019 and 2020, 80% of Tamarack's capital program was allocated to the low emissions intensity Veteran area.

Culture of Innovation

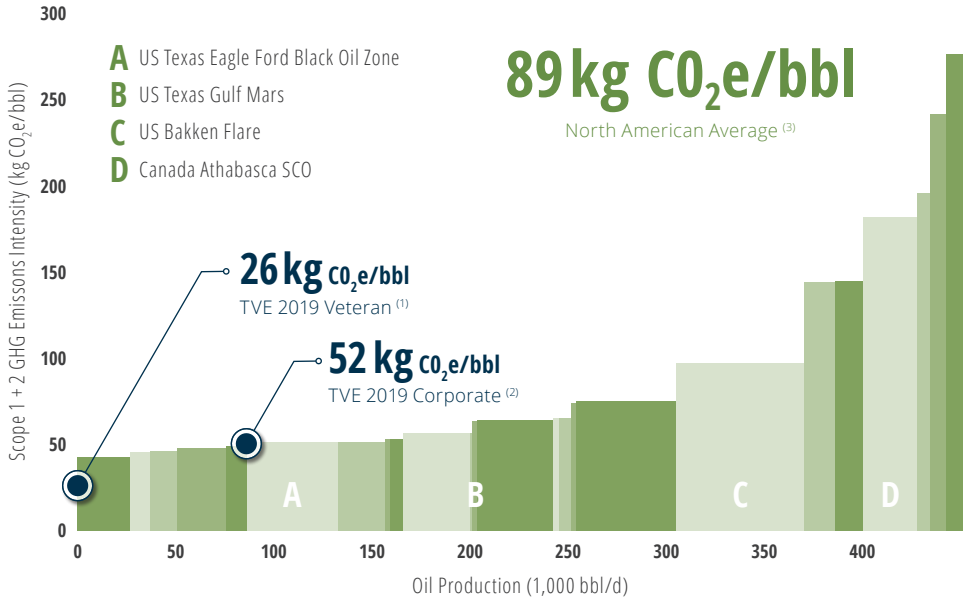
As an active and engaged organization, Tamarack encourages innovation in order to continuously improve efficiency, reduce environmental impact and improve financial results. Look for this symbol to learn more about some of the innovations Tamarack is advancing.

Tamarack Video Series

Our culture of sustainability is evidenced across everything we do. Look for this symbol to watch short videos highlighting different ESG-focused perspectives from various Tamarack team members.

Tamarack ranks in the top 20th percentile for low emissions intensity in North America

SCOPE 1 + 2 ESTIMATED GHG EMISSION INTENSITY OF GLOBAL CRUDES [3],[4]



(1) TVE 2019 Veteran emissions calculations utilized the Oil Production Greenhouse Gas Emissions Estimator (OPGEE), in addition to 2019 data and certain field level engineering variables to create an estimated emissions number on a per barrel of oil basis. This data is used for illustrative and comparative purposes only and should not be used to compare to other information presented in the report which uses actual data.

(2) TVE 2019 Corporate emissions calculations are based on overall corporate emissions for 2019 as calculated using the same methodology elsewhere in this report but adjusted to a per barrel of oil calculation rather than a per barrel of oil equivalent basis. As a result, this number will differ from other numbers presented in this report.

(3) GHG emissions intensity for all other crude types provided in this graph was sourced from the Carnegie Endowment Oil Climate Index (2016). The Oil Climate Index utilizes the same OPGEE calculator referenced in the TVE 2019 Veteran calculations. The data used to create the emissions intensities noted in the graph was collected before release in March 2015 with minor changes through October 2016. Data from Alberta producers was updated to represent 2014 data during 2016. For more information, please visit http://oci.carnegieendowment.org/#about.

(4) Tamarack data from 2019 is being compared to data without a specific known time period. It is expected that most data represents 2013 and 2014 information.

Sustainability Program

Tamarack has always prioritized operational excellence, ensuring we delivered results while prioritizing environmental stewardship, community engagement and employee empowerment. Our sustainability plan is designed to formalize the good work we already do while also driving a focus on new perspectives and opportunities for continuous improvement.

This inaugural report shares our sustainability story with all stakeholders. It highlights our sustainability philosophy and how our beliefs are transformed into tangible actions. This report is also a foundation for our future commitment to sustainability and an opportunity to inspire continued conversation with our stakeholders. We are proud to share our progress to date and highlight our key priorities for the future.

OUR BELIEFS

1	Corporations are not isolated – they are part of an integrated and interdependent system. We must be aware of how we interact with, and are impacted by, the world around us.
2	We need to effectively assess, qualify and quantify opportunities or risks in order to monitor and create value.
3	Sustainability should be integrated across all aspects of the organization to inform decision making – it should not be siloed as a separate regulatory box checking exercise.
4	A sustainability story is most effective when it is clear, concise and usable for all stakeholders. It needs to provide an accurate comparison across organizations and sectors.
5	The importance of sustainability needs to be well understood and adopted at all levels of the organization in order to drive positive change.

OUR ACTIONS

1	Tamarack engages in continuous analysis and improvement through the full cycle of operations. Tamarack creates opportunities to listen to stakeholders, to be well informed as an organization and to foster open and honest conversations.
2	With oversight from the Board, involvement from management and cross-disciplinary organizational participation, Tamarack actively undertakes the assessment of material variables. Tamarack endeavours to assign financial and qualitative values to risks and opportunities.
3	Tamarack is integrating sustainability factors into strategic and capital decision making. In addition, Tamarack is developing business systems and processes to provide prospective data and better inform decision making.
4	Tamarack's reporting is informed by frameworks including UN SDGs (United Nations Sustainable Development Goals), GRI (Global Reporting Initiative), SASB (Sustainability Accounting Standards Board) and TCFD (Task Force on Climate-related Financial Disclosures) in addition to leading peer reporting. Tamarack also engages with the work of industry groups such as CAPP and EPAC and stays current through education on global sustainability trends.
5	Tamarack provides opportunities for team-members to learn about our sustainability initiatives. Tamarack's approach engages different departments and levels so the voice of sustainability is heard throughout the organization. Variable compensation for all employees, including management, is tied to ESG goals and objectives.

BOARD OVERSIGHT OF ESG INTEGRATES WITH MANAGEMENT AND TEAM

Sustainability touches every corner of our organization. While oversight of sustainability is specifically included in the Environment, Safety and Sustainability committee mandate, all committees are engaged at some level in the oversight and integration of our sustainability program.

Timeline

In order to most effectively advance our commitment to sustainability while ensuring our goals are achieved, Tamarack has elected to implement a phased approach:

10% *of short-term compensation is tied to ESG targets in 2020.*

2018 – 2020

Awareness

Release of our inaugural sustainability report and strategy in 2020, bringing awareness to our sustainability story and prior good work with commitments and goals for continued responsible growth.

2019 – 2023

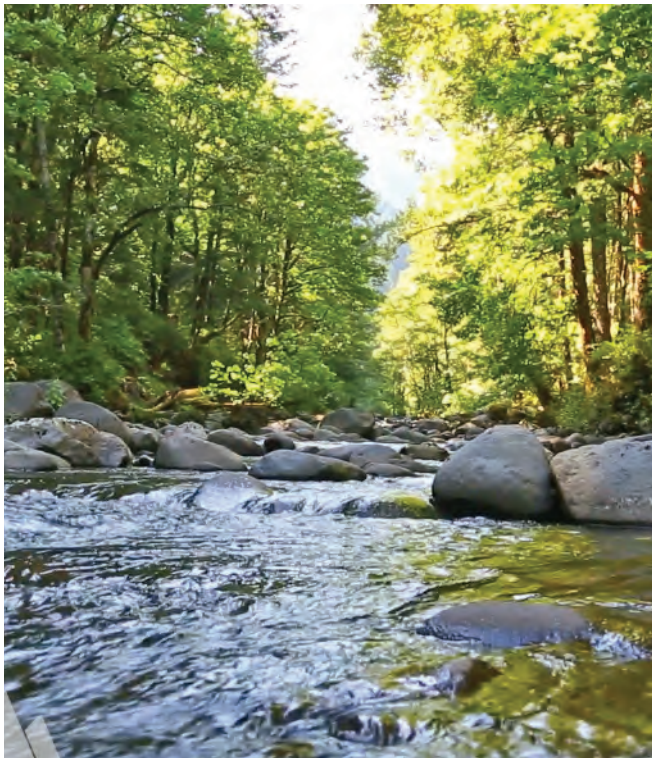
Action

Over the next three years, Tamarack intends to build on the strong foundation we have started to drive us forward toward our sustainable future.

2023 AND BEYOND

Impact & Sustained Action

As we reach our targets and continue to further evolve and improve, we will look to scale our program, expand our engagement and identify new opportunities to innovate.



CONTINUOUS IMPROVEMENT

Scorecard

Tamarack believes in the importance of clear commitments and transparent follow-through – at a corporate level and across all asset teams. To facilitate this same transparency around sustainability, we have developed a scorecard in association with industry standards to aggregate our commitments and progress in order to provide confidence to our stakeholders.

Tamarack's Commitment to Sustainability	*Status*	*Next Steps*	*Learn More*
Transparency, diversity and the highest level of ethics within governance practices		Third-party assurance; increase Board diversity and compensation tied to ESG goals	**11**
A culture that prioritizes health and safety, rectifies risks and educates team members on safety		Increase mitigations; provide training; promote safety with executive interaction	**13**
Meaningful engagement, mutual transparency and shared economic value with community partners		Formalize investment parameters; report economic value	**16**
Active partnerships and support for cultural and knowledge sharing with our Indigenous stakeholders		Create shared value; increase Indigenous representation in workforce and spending	**18**
Empowering our people through education opportunities, active engagement and inclusion		Train and educate; monitor engagement; implement diversity and inclusion program	**20**
Minimized ecosystem impact, complete land restoration and effective management of inactive liabilities		Engage in recovery; obtain reclamation certificates; reduce inactive liability	**23**
Adherence to required water regulations, prudent fresh water use and use of non-potable water sources		Water use reduction initiatives; focused non-fresh water use in Veteran	**26**
Reduction of GHG emissions, awareness of climate change risk and low emission intensity		Complete climate change risk program; reduce emissions and methane intensity	**28**

Great Start *On Our Way* *The Future is Bright*

COMMITTED TO SUSTAINABILITY

COMMITTED TO COMMUNITY ENGAGEMENT

COMMITTED TO PRESERVING INDIGENOUS CULTURE

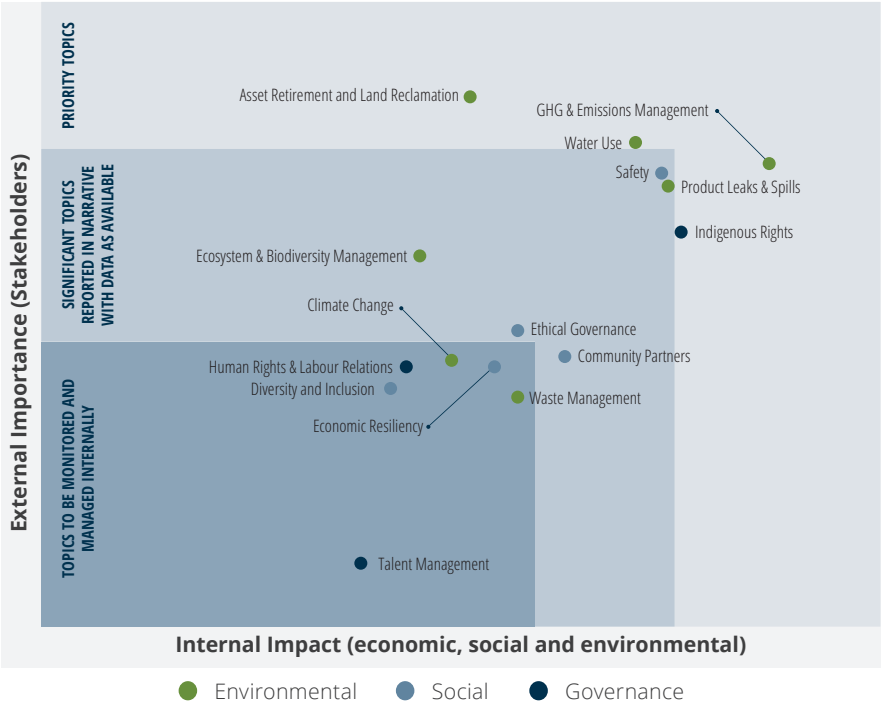
Materiality

As part of the ongoing assessment of risks and opportunities, Tamarack conducted a materiality assessment to help identify key ESG factors. Guided by the recommendations of the GRI for materiality assessments, Tamarack solicited input from internal stakeholders and collected data from external resources, including stakeholder interactions, industry regulations and public third-party information. This data helped identify key factors and establish the internal economic, environmental and social impact as well as the relevance to external stakeholders. Tamarack also referenced the key risk areas identified by the SASB framework. Probability of occurrence, materiality of outcome, regionality of risk, degree of organizational control, relevant timeframe and trends were all considered.

The result of this assessment shows four Priority and five Significant topics as well as six topics to monitor. The nine Priority and Significant issues have been grouped into five main areas of potential risk/opportunity. These major focus areas are discussed throughout this report. The six topics to monitor may be discussed in conjunction with other topics and will continue to be reviewed and managed internally.

Tamarack will continue to refine our assessment process on an ongoing basis, including the identification and prioritization of key factors, in order to effectively mitigate risks or leverage opportunities.

SUSTAINABILITY MATERIALITY ASSESSMENT



EMISSIONS MANAGEMENT

Emissions management includes the priority topic of GHG and emissions management. It is aligned with the SASB disclosure topics of greenhouse gas emissions and air quality.

WATER MANAGEMENT

Water management includes the priority topic of water use. It is aligned with the SASB disclosure topic of water management.

LAND & BIODIVERSITY PRESERVATION

Land and biodiversity preservation includes the priority topic of asset retirement and land reclamation as well as the significant topics of ecosystem and biodiversity management and product leaks and spills. It includes information from the SASB topics of biodiversity impacts and critical incident risk management.

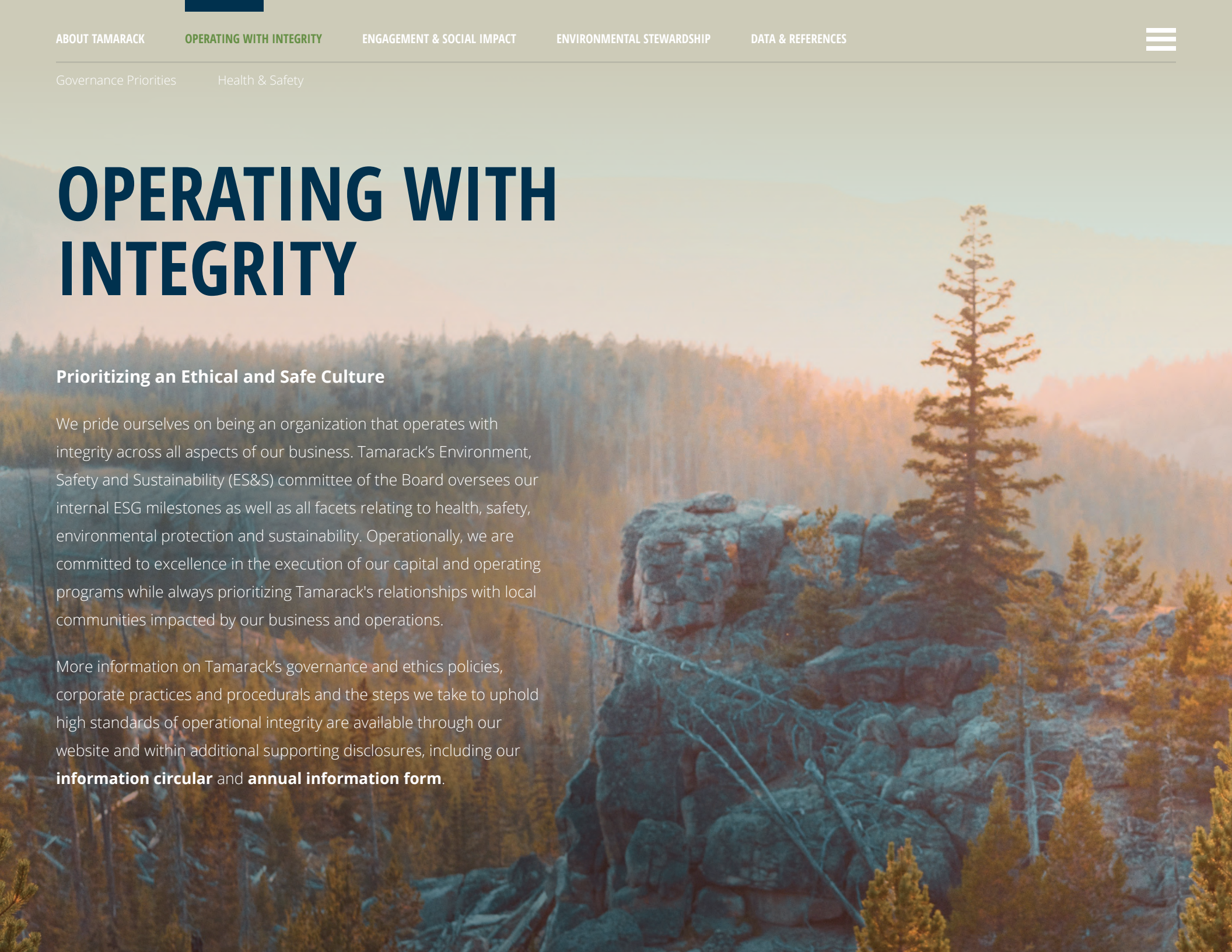
STAKEHOLDER ENGAGEMENT

Stakeholder engagement includes the priority topic of Indigenous rights and the significant topic of community partnership. It aligns with the SASB disclosure topics of security, human rights and rights of Indigenous peoples as well as community relations.

ETHICAL GOVERNANCE

Ethical governance includes the significant topics of safety and ethical governance. It aligns with the SASB disclosure topics of workforce health and safety as well as business ethics and transparency.

OPERATING WITH INTEGRITY



Prioritizing an Ethical and Safe Culture

We pride ourselves on being an organization that operates with integrity across all aspects of our business. Tamarack's Environment, Safety and Sustainability (ES&S) committee of the Board oversees our internal ESG milestones as well as all facets relating to health, safety, environmental protection and sustainability. Operationally, we are committed to excellence in the execution of our capital and operating programs while always prioritizing Tamarack's relationships with local communities impacted by our business and operations.

More information on Tamarack's governance and ethics policies, corporate practices and procedurals and the steps we take to uphold high standards of operational integrity are available through our website and within additional supporting disclosures, including our **information circular** and **annual information form**.

Governance Priorities

Ethical Governance: Tamarack is committed to conducting business in an ethically responsible manner, with strategic and operational policies, procedures and values that support transparency, sustainability and legal compliance; this commitment extends across everything we do. In our view, ethical governance is integral to Tamarack's core business foundations and underpins our ability to positively contribute to the world's energy needs.

KEY CORPORATE POLICIES

- *Code of Conduct & Business Ethics policy*
- *Respectful Workplace policy*
- *Whistleblower policy*
- *Health, Safety & Environment policy statement*
- *Risk Management policy*

BOARD COMMITTEES

Tamarack maintains strong oversight from multiple committees, including Audit; Corporate Governance and Compensation; Reserves; and Environment, Safety and Sustainability, each of which reports to the full Board.

Visit our website to read more

Commitment

Tamarack is committed to transparency, diversity and the highest level of ethics within our governance practices.

Goals

Increase portion of executive **compensation tied to** achievement of key **sustainability goals** through the addition of a long-term incentive target to the existing short-term targets.

Increase transparency of ESG through **third party assurance** of reporting.

Increase Board diversity through gender and ethnicity representation as well as skills matrix.

Timeline

2020 — 2021

2020 — 2022

2020 — 2023

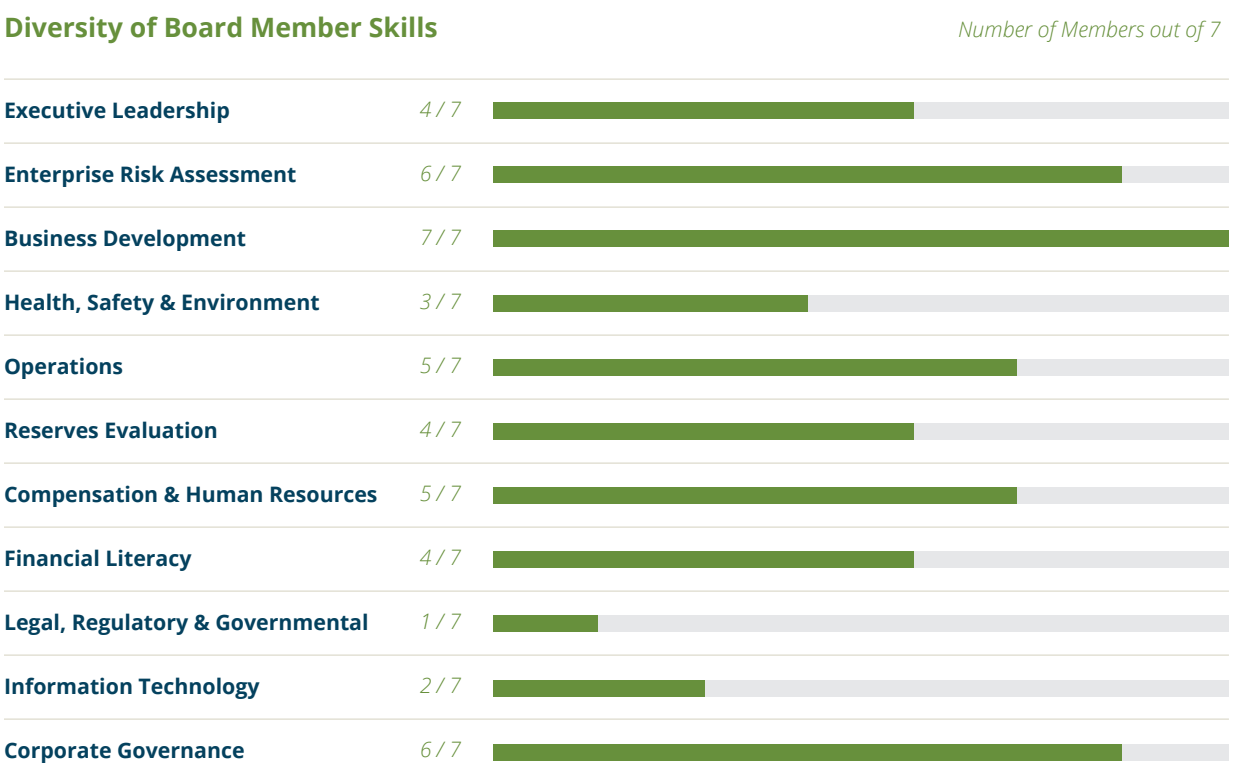
These commitments and goals align with the United Nations Sustainable Development Goal #16: Promote just, peaceful and inclusive societies – targets 16.5, 16.6 and 16.7. Additionally, our focus overlaps with #5: Gender Equality (5.1, 5.5); #10: Reduced Inequalities (10.2, 10.3, 10.4); #12: Responsible Consumption and Production (12.6); and #17: Partnerships for the Goals (17.16, 17.17).

Governance Priorities

Diversity & Inclusion: Fostering a diverse yet inclusive culture and work environment is a priority across the organization, and it starts at the Board level. Tamarack is improving our Board skills matrix to ensure the team includes individuals with the skills and experience needed to elevate the organization for the long-term.

COMMITTED TO RESPONSIBLE GOVERNANCE

Diversity of Board Member Skills



5 YEARS

Average Board tenure

100%

Committee Independence

14%

Women on the Board

Health & Safety

People are the engines that drive our organization and Tamarack places the highest priority on the protection of our people, our partners and our communities.

In addition to the ES&S Board committee, Tamarack has an internal committee comprised of employees across the organization dedicated to identifying key concerns and opportunities for health and safety improvement. Tamarack is committed to the long-term physical and mental health of its employees across the organization. In combination with a comprehensive health benefits package, employees are also offered further wellness supports including emergency mental health support and optional health and wellness compensation.

Since inception, Tamarack has prioritized the safety of our workforce

Commitment

Tamarack is committed to a culture that prioritizes safety, proactively rectifies risks and continuously educates team members on safety protocols.

These commitments and goals align with the United Nations Sustainable Development Goal #8: Promote inclusive and sustainable economic growth, employment and decent work for all – targets 8.2 and 8.8. Additionally, our focus overlaps with #3: Good Health and Well-Being (3.8).

Goals

20% increase in observations and mitigations over 2019 baseline to help prospective safety management.

Increase executive presence at field level safety and operations meetings to **promote** the importance of **safety through 20 independent executive interactions** annually.

Increase formal spill hazard training for production operators with an **80% participation rate**.

Timeline

2019 – 2021

2020 – 2021

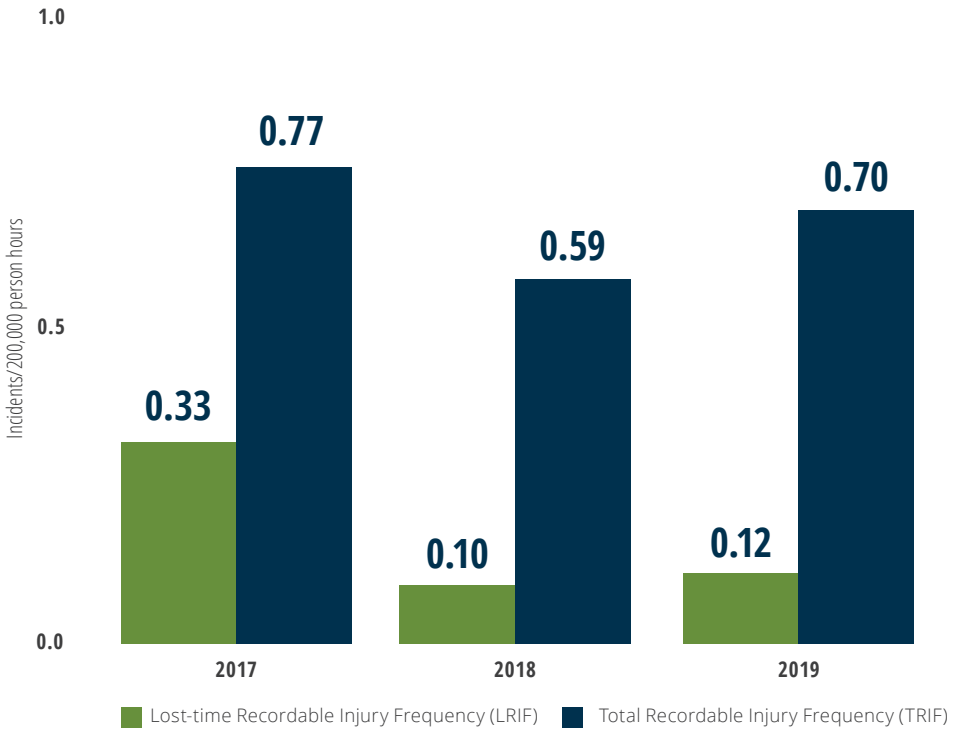
2020 – 2022

Health & Safety

"Our ultimate objective is to ensure every employee and contractor gets home safely at the end of each work day."

– Kelly Josephison, Production Superintendent

TOTAL AND LOST-TIME RECORDABLE INJURY FREQUENCIES



Tamarack believes that the "Pre-Post Ratio" is an important tool for proactive safety management. By identifying issues through inspections or observations, issues can be mitigated in advance of a consequential incident. Our target 5:1 ratio sets a goal for minimum number of inspections or observances and real-time tracking allows us to effect positive change immediately.

NUMBER OF PROACTIVE INSPECTIONS & IDENTIFIED RISKS VS OCCURRENCES (2019)

731 Inspections
- Prevention Activities

380 Observations & Mitigation
- Near Miss/Hazards

VS

121 Incident Occurrences
- Equipment Damage/Regulatory
- Environment
- Security
- Stakeholder

10 Injury Occurrences
- Lost time/modified duty
- Medical/first aid

8.48 RATIO

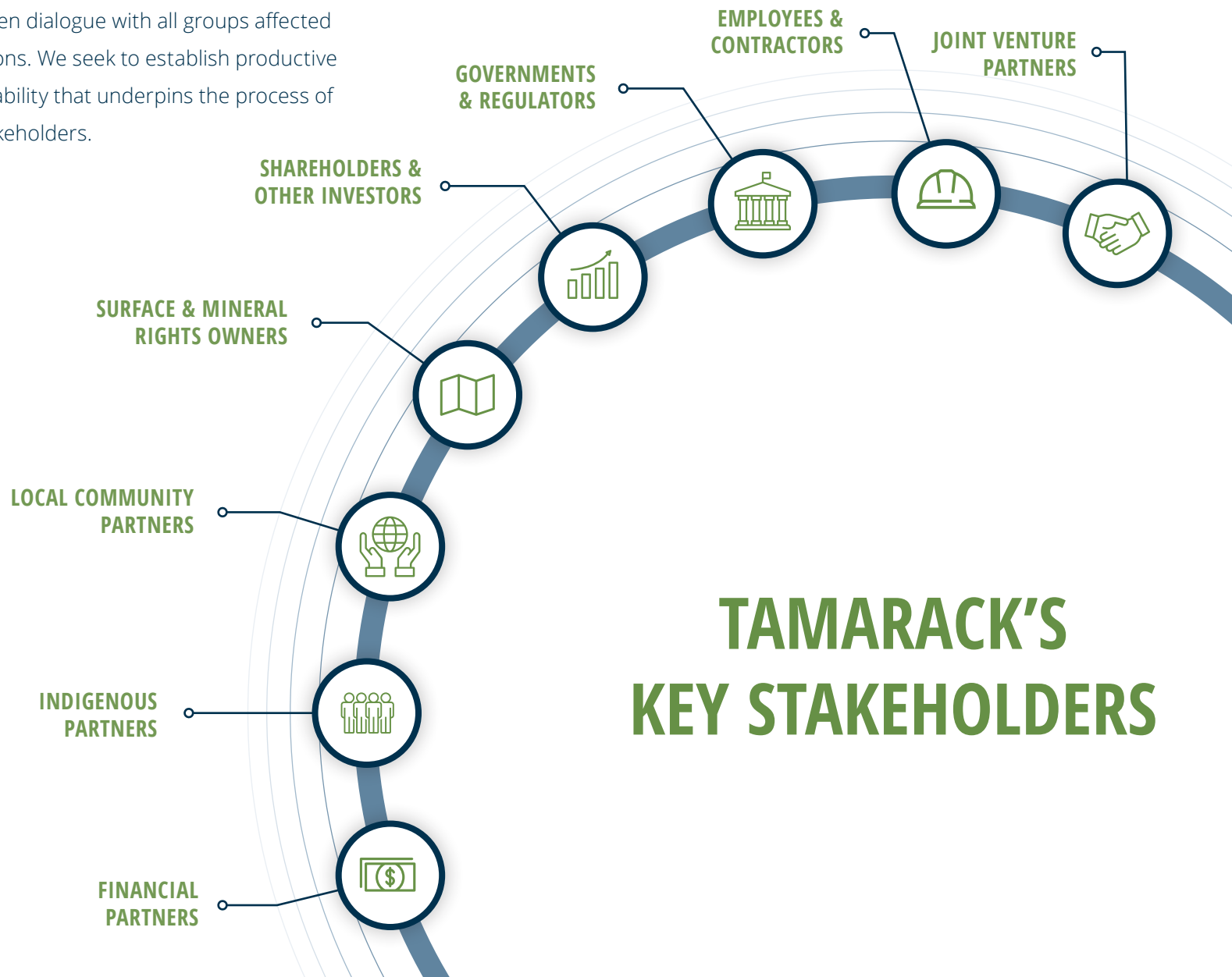
Target = >5.0

ENGAGEMENT & SOCIAL IMPACT

We strive to understand stakeholder risks and opportunities, going above and beyond to actively engage in open dialogue with all groups affected by Tamarack's business and operations. We seek to establish productive engagement balanced with accountability that underpins the process of informed decision making for all stakeholders.

"As members and contributors to the communities where Tamarack lives, works and operates, we strive to establish and maintain strong relationships with all stakeholders."

– Mike Anderson, Manager, Surface Land



TAMARACK'S KEY STAKEHOLDERS

Community Engagement

We believe that our best opportunity to be responsible community members is through regular and active engagement. Tamarack is best positioned to be successful when the communities we operate in realize value from our presence. Engagement enables transparency around key issues so we can understand community concerns and then manage or mitigate risks. We also look for collaborative ways to create shared value and prioritize the local economy where possible.

KAINAI RESOURCES AND TAMARACK VALLEY JOINT VIRTUAL OPEN HOUSE VIDEO

Commitment

Tamarack is committed to meaningful engagement, mutual transparency and shared economic value with community partners.

These commitments and goals align with the United Nations Sustainable Development Goal #17: Revitalize the global partnership for sustainable development – targets 17.16 and 17.18. Additionally, our focus overlaps with #15: Life on Land (15.6, 15.9).

Goals

Create **formalized parameters** for community investment.

Increase frequency and methods of engagement with stakeholders, with a target of **50** unique **stakeholder interactions and 5 new initiatives** to facilitate interaction.

System development for the public **reporting of economic value** created in communities, with clear delineation of where the value is realized to improve transparency.

Timeline

2020 — 2021

2020 — 2022

2020 — 2022

Community Engagement

"It's important that I work for a company whose values are aligned with my own. Volunteering and helping in the community provides a real a sense of satisfaction – I'm happy knowing that my colleagues and I are able to give back to the community in a meaningful way."

- Johanna Santiago, Project Analyst

Tamarack believes that engagement goes beyond the required consultations and that better results can be achieved through partnerships and collaboration. Tamarack seeks to evaluate and understand ways that we can be active contributors including:

1. **Economic benefit for local communities including short- and long-term job creation and utilization of local businesses.**
2. **Active and responsible partnership through joint initiatives such as crime watch groups and open houses.**
3. **Support for local community vitality including sponsorship of sports teams; scholarships; initiatives to preserve and promote culture or heritage; and a partnership with Alberta Health to support families with special needs and terminally ill children.**

TAKING CARE OF OUR COMMUNITIES

Tamarack actively partners with communities to plan, fund and operate local crime watch programs. Tamarack joined the Rimbey Industry Crimewatch in 2019 and actively engages on initiatives to reduce area crime and vandalism. In addition, the group works with government agencies to enact changes to funding and policing models in the area.

Indigenous Partnerships

Tamarack has a long history of working alongside First Nations' communities. We have a deep respect for the culture and wisdom of our Indigenous neighbours. Tamarack believes that the most valuable step toward reconciliation we can make is to treat our First Nations' stakeholders as equal but unique partners with opportunities to be active participants.

"We not only respect the rights of our Indigenous stakeholders, we engage them as valued, active partners to generate mutual benefit and enable a better quality of life."

- Brian Schmidt (Aakaikkitstaki), President, CEO & Director

Commitment

Tamarack is committed to active partnerships with our Indigenous stakeholders, support for the preservation of culture and knowledge sharing to produce mutually beneficial outcomes.

These commitments and goals align with the United Nations Sustainable Development Goal #10: Reduced inequality within and among countries – targets 10.2, 10.3 and 10.4. Additionally, our focus overlaps with #4: Quality Education (4.4); #11: Sustainable Cities and Communities (11.4); #15: Life on Land (15.6); #16: Peace, Justice and Strong Institutions (16.7); and #17: Partnerships for the Goals (17.16, 17.17).

Goals

Acknowledge and implement the **principles of UNDRIP** through investment in reconciliatory activities including cultural, education and training.	2020	2021
Identify new opportunities for **shared value** and potential partnerships **through 1 additional partnership**.	2020	2021
Implement a system to track and **improve spend with Indigenous businesses**.	2020	2022
Increase **Indigenous representation** in our field and office workforce to 6%.	2020	2025

Indigenous Partnerships

Tamarack supports our Indigenous stakeholders in a variety of meaningful ways. Corporately, Tamarack supports and engages with our Indigenous partners of the Kainai Nation through:

- Short- and long-term employment opportunities
- Utilization of First Nation businesses where available
- Opportunities for active participation as a partner in projects in addition to any passive income earning from royalties and lease payments
- Facilitation of cultural projects including a video series directed at preserving culture and history
- Program design and financial support during challenging times such as the COVID-19 pandemic
- Innovation and knowledge sharing initiatives

In addition to the organizational support, Brian Schmidt (Aakaikkitstaki), CEO, is also an avid supporter of local Indigenous groups as seen through his work as:

- Appointed as an honourary chief in 2018
- Chair of the Indigenous Policy Group at CAPP
- Industry Advisor for the Indian Resource Council and Indian Oil and Gas Canada Co-Management Board
- Founder and advisor to the Indigenous Resources Network
- An active public speaker on Indigenous Prosperity, the Impact of Government Policy on the Indigenous peoples and Indigenous-Industry Relations
- An educator on oil and gas subjects for First Nations
- A key driver in the establishment of a royalty trust framework, First Nations financial risk management and a government funded reclamation program for sites on First Nation lands
- An avid writer of public opinion pieces on Indigenous relations. *Click Here to read one of Brian's articles*

COMMITTED TO PARTNERSHIPS WITH FIRST NATIONS

11.1% & 11.7%

TPP & TP reserves on a volume basis are on or near Kainai lands

"Tamarack's partnership success with the Blood Tribe is well recognized by our member nations. Through shared visions for resource development, facilitation of critical industry relationships and job development, Brian and his team have helped our people discover ways to improve their lives during a time of uncertainty."

- Stephen Buffalo, CEO Indian Resource Council

Our People

Tamarack believes that investing in our human resources is equally critical as investing in our natural resources. One way we do this is to support our people as they seek greater education and development. We have a mentoring program aimed at helping younger employees advance and grow. We host speakers to teach valuable networking skills and foster a strong culture of diversity and inclusion.

"Tamarack endeavours to enable the broadest spectrum of perspective and experience in our organization. This is inclusive of age, gender, ethnicity, background and abilities."

– Steve Buytels, Chief Financial Officer

Commitment

Tamarack is committed to empowering our people – employees and contractors alike – through education and training opportunities, active engagement and inclusion.

These commitments and goals align with the United Nations Sustainable Development Goal #8: Promote inclusive and sustainable economic growth, employment and decent work for all – targets 8.2, 8.3 and 8.5. Additionally, our focus overlaps with #4: Quality Education (4.4); #5: Gender Equality (5.1, 5.5); #10: Reduced Inequalities (10.2, 10.3, 10.4); and #16: Peace, Justice and Strong Institutions (16.7)

Goals

Provide in-house **training and education** initiatives to further develop skills and industry knowledge with a **95% participation rate**.

Manage and monitor **employee engagement** levels through workshops, surveys and interviews with a **95% participation rate**.

Implement a **diversity and inclusion** program aimed at education and support for underrepresented groups as well as tracking to improve transparency.

Timeline

2020 – 2021

2020 – 2021

2020 – 2021

Our People

Tamarack supports diversity and inclusion through a broad scope of activities including:

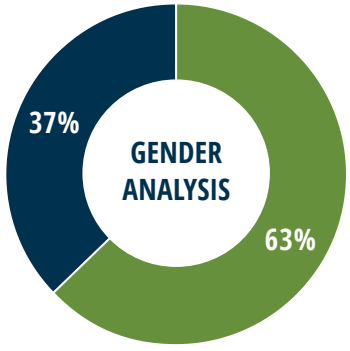
1. **The Tamarack Women's Group**
2. **Mentorship programs**
3. **Co-op and student hiring programs**
4. **Diverse representation on internal committees**
5. **Clear mandate for non-discrimination in our code of conduct and business ethics**

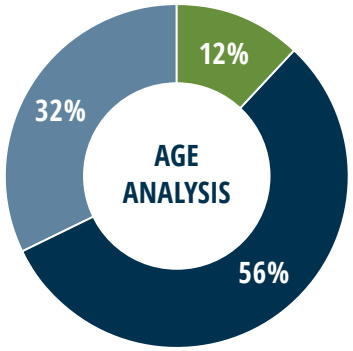
"Tamarack is unique in that our team is comprised of a healthy balance of experienced industry professionals combined with young, ambitious employees, which truly fosters a strong culture of diversity and inclusion."

-June-Marie Innes, Director, Finance & Sustainability

COMMITTED TO DIVERSITY AND INCLUSION

TAMARACK VALLEY ENERGY TEAM COMPOSITION





ENVIRONMENTAL STEWARDSHIP

Protecting the Environment

We are passionate about minimizing Tamarack's environmental footprint at every level. Protecting the environment is not something we are forced to do – it is something we care deeply about, both as individuals and as a responsible corporate citizen and demonstrates our 'E' focused culture. In 2020, we are working toward the development of clear, measurable targets tied to executive compensation and focused on key issues that are relevant to our business such as carbon intensity, fresh water management and land use.

Land & Biodiversity Preservation

At Tamarack, we understand and respect the ecosystems and lands in which we operate. We are proud of the work that we do to manage our impact across the full life cycle of every project from pre-site assessment to the final remediation and reclamation. Despite the strides we've taken to be a leader in this area, we recognize that proper land management and restoration is of growing importance universally across our stakeholder groups. We will continue to prioritize land and biodiversity management, seeking innovative ways to manage and reduce both environmental impact and cost.

COMMITTED TO LAND RESTORATION

Commitment

Tamarack is committed to prudent full-cycle land management practices that minimize ecosystem impact, return sites to their original state and effectively manage inactive liabilities.

These commitments and goals align with the United Nations Sustainable Development Goal #15: Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss – targets 15.1, 15.4, 15.5 and 15.9. Additionally, our focus overlaps with #6: Clean Water and Sanitation (6.6); #8: Decent Work and Economic Growth (8.2, 8.4); and #12: Responsible Consumption and Production (12.2, 12.5, 12.6)

Goals

Engage in an **at-risk species rehabilitation** project.

Advance reclamation program through receipt of **50 reclamation certificates per year** on a rolling three-year average basis.

Reduce existing **inactive liability** profile through an ARO spend that **exceeds** the voluntary target set through the **Alberta Energy Regulator's Area Based Closure program on an annual basis**.

Timeline

2020 – 2022

2020 – 2022

2020 – 2023

Land & Biodiversity Preservation

Case Study: Pre-site Assessment and the Ferruginous Hawk

Part of every site construction that Tamarack undertakes involves a pre-site assessment. This preliminary assessment provides ecosystem insights and creates a baseline for soil and vegetation restoration at the end of the project life. It also ensures the preservation of habitat and of migratory or breeding patterns, especially for protected species.

During the pre-site assessment of a lease expansion in March 2018, a pair of Ferruginous hawks and a small stick nest were observed in the area. As an at-risk species, no new disturbances may be undertaken within 1000m of an active nest. In May 2018, Tamarack returned with a team of environmental experts including representatives from our Kainai partners. An extensive search was undertaken and the active nest was located well outside of the 1000m setback area. The tracking of activity on a protected species can be challenging. Tamarack was able to share this information with Alberta Fish and Wildlife so they can continue to monitor the nest.

Land Use and Reclamation Track Record

Voluntary asset retirement program

Area Based Closure (ABC) program participation

One of only 56 O&G companies to participate in ABC program in 2020 (out of 721 in Alberta)

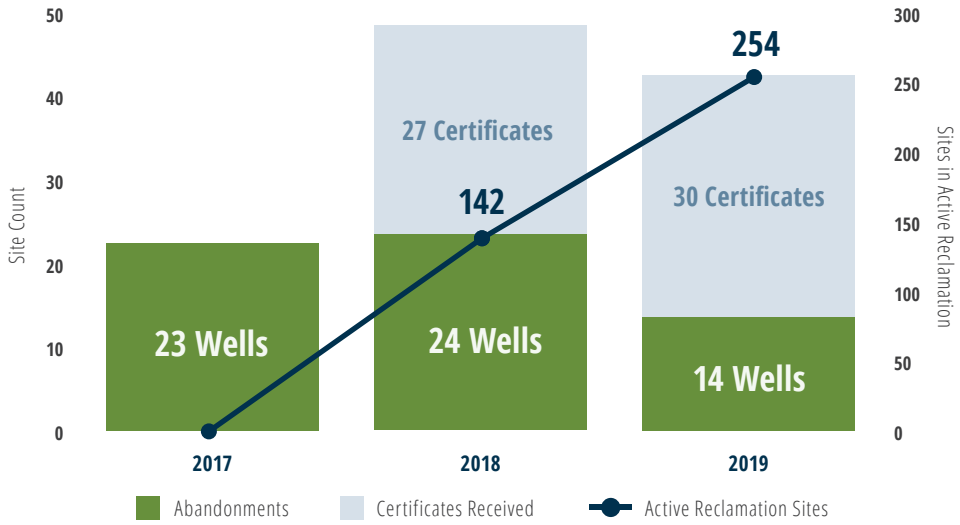
2017 → 2019 → 2020

100%

of new Tamarack drill locations have pre-site assessments completed

Tamarack's innovative use of Geotextile liner to cover grassland sod and topsoil in the construction of new wellsites and access roads was recognized at an industry workshop in 2019 with three of our sites used as case studies to illustrate novel construction and reclamation practices.

WELL ABANDONMENT AND RECLAMATION



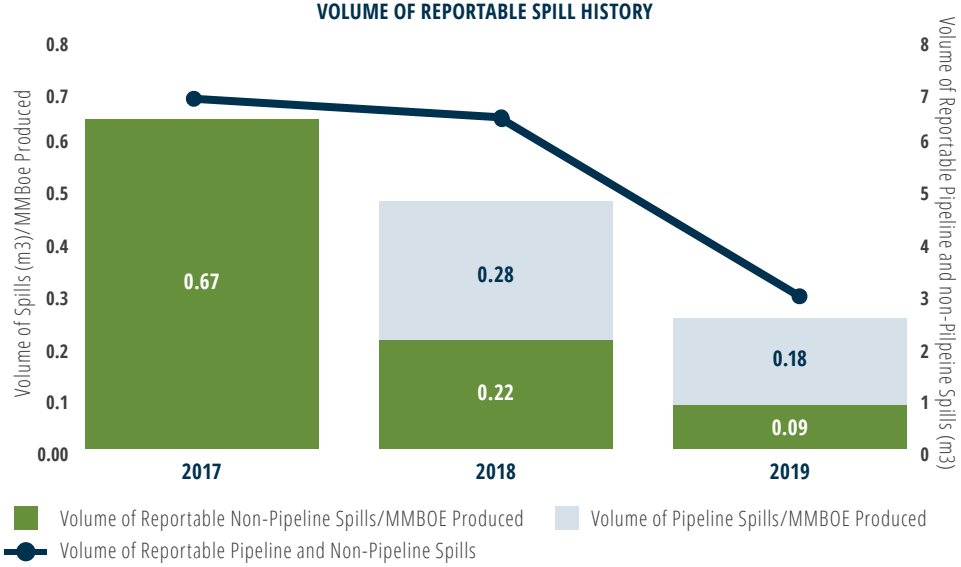
Land & Biodiversity Preservation

Responsible Operations

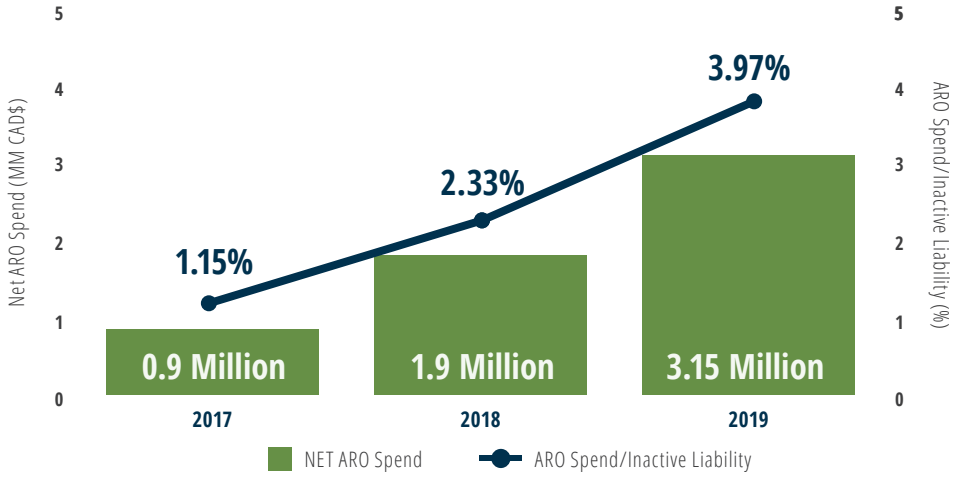
Tamarack is dedicated to pipeline and lease spill management. Through a focus on operational excellence and a rigorous pipeline integrity program, Tamarack has successfully minimized incidents of product leakage and spills. Despite the rigorous standards of our provincial government and regulators, Tamarack strives to exceed regulator expectations. Tamarack engages in a risked approach that ensures all pipelines are appropriately monitored and tracked with more attention and mitigation applied to our highest risk areas. Our comprehensive program includes operational leak mitigation processes and cathodic protection while additional asset integrity activities include corrosion inhibitor, physical inspections, routine pigging and smart pig inspections. It also includes monitoring and education for our third-party contracting partners to ensure they uphold the same standards.

COMMITTED TO REDUCING ENVIRONMENTAL IMPACT THROUGH INNOVATION

VOLUME OF REPORTABLE SPILL HISTORY



NET ARO SPEND/INACTIVE LIABILITY



~$4.0 Million

Budgeted for abandonment and reclamation activities in 2020.

As many other O&G companies have cancelled or drastically reduced ARO programs, Tamarack has accelerated our program and increased our budget.

Tamarack utilizes multi-well pads and extended reach horizontal wells up to 3 miles long. These innovative tactics enable Tamarack to lower costs and reduce environmental impact by creating the same hydrocarbon drainage with fewer surface locations, less pipeline infrastructure and a limited number of local disturbances during capital projects.

Water Management

Tamarack believes in the importance of water management. Water is a key input and product of our operations, and is managed in accordance with regulations and the required environmental approval. Despite the relative availability of water in the Canadian provinces where we operate, water security is an increasing global issue and an important risk area for us to understand. Leveraging innovation to minimize fresh water use and recycle produced water in our operations provides an immediate and long-term advantage for the organization through cost savings and a reduction in our environmental footprint.

COMMITTED TO RESPONSIBLE FRESH WATER USAGE

Commitment

Tamarack is committed to operating as a responsible citizen within the required water regulations, prudently using water where required and maximizing the use of alternate non-potable water sources.

Goals

Ensure **100% use of non-fresh water** in completion and enhanced oil recovery operations at Veteran.

Identify **3 unique initiatives** to **reduce** forecasted **fresh water** consumption.

Timeline

2020 — 2022

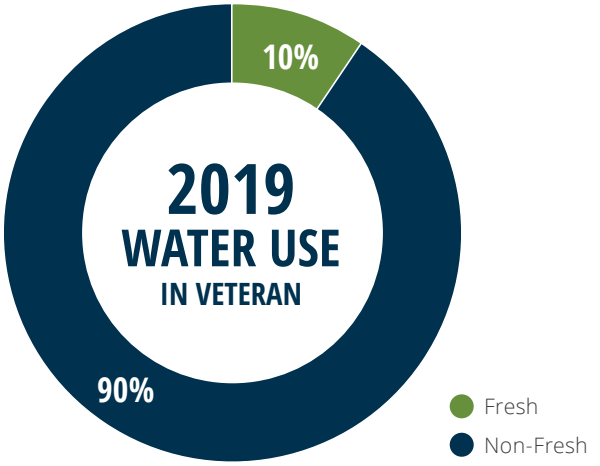
2020 — 2023

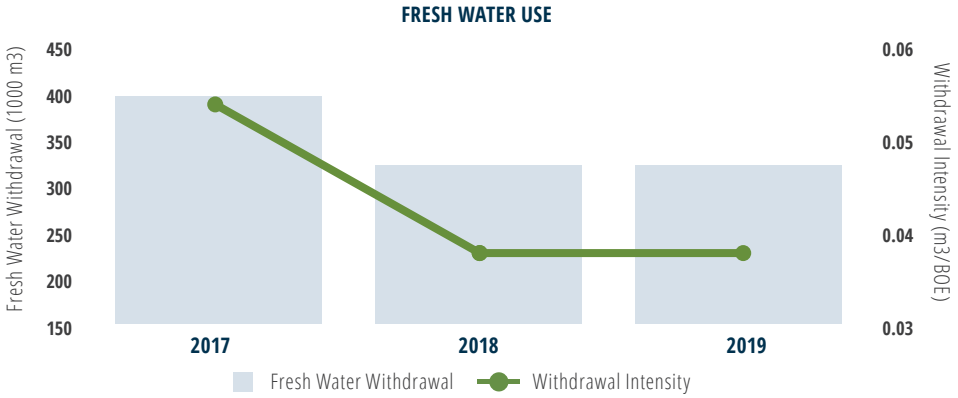
These commitments and goals align with the United Nations Sustainable Development Goal #6: Ensure access to water and sanitation for all – targets 6.4, 6.5 and 6.6. Additionally, our focus overlaps with #8: Decent Work and Economic Growth (8.2, 8.4); and #12: Responsible Consumption and Production (12.2, 12.4, 12.5, 12.6)

Water Management

Case Study: Conservation of Fresh Water Resources

Water is an important part of our success at Tamarack. Our Veteran waterflood increases production from the lowest GHG intensity oils, recovers more oil with essentially the same footprint and reduces corporate decline rates, stabilizing year over year production with lower additional capital. At the outset, we recognized the importance of sourcing, monitoring and managing water for the waterflood and the growing Viking oilfield. Through continuous innovation and improvement, Tamarack virtually eliminated fresh water use in Veteran hydraulic fracturing activities in 2018. The waterflood recycles water produced from area oil wells and supplements injection with water from non-potable source wells, ensuring zero fresh water use. Tamarack also strengthened its procedures and personnel training to ensure compliance and to seek additional reductions in water consumption.





The Alberta Energy Regulator (AER) identified concerns with Tamarack's accounting of water use and classification of water sources during 2017 and early 2018. As part of the AER's commitment to ensuring the highest regulatory and environmental standards, they strenuously enforce the Provincial Water Act and charged Tamarack in March 2020 with contraventions. The matter is currently before the courts; however, Tamarack has already taken meaningful steps to improve systems for the use and monitoring of water. Tamarack remains committed to maintaining the highest standards of environmental performance and regulatory compliance.

Less than 500m³

of fresh water per well, on average, is required during drilling operations, in particular during the cementing of surface casing to ensure the protection of ground water.

Prior to 2018, water for drilling and completion activities in Veteran was primarily sourced from surface water bodies deemed fresh water sources. To be effective in wellbore activities, the water required added salts (potassium chloride) to ensure formation compatibility. Switching to recycled produced and saline formation water enabled Tamarack to leverage existing compatibility. This innovative approach reduced costs by limiting additives and lowered environmental impact by reducing fresh water extraction.

Emissions Management

With a large majority of our operating properties in the province of Alberta, Tamarack adheres to some of the most stringent emissions management regulations in the world. In addition, the light oil profile of Tamarack's production results in a lower emission intensity relative to many other heavy and emissions intensive plays. Despite this relative advantage, Tamarack believes in the importance of emissions management and reduction. We continuously seek innovative ways to lower energy intensity and capture emissions across the full cycle of our operations.

Commitment

Tamarack is committed to reducing greenhouse gas emissions, understanding climate change risks and providing a highly responsible, low emission energy option during the energy transition.

These commitments and goals align with the United Nations Sustainable Development Goal #13: Take urgent action to combat climate change and its impacts – targets 13.1 and 13.3. Additionally, our focus overlaps with #7: Affordable and Clean Energy (7.3); #8: Decent Work and Economic Growth (8.2, 8.4); and #12: Responsible Consumption and Production (12.2, 12.4, 12.5, 12.6)

Goals

Continue and **complete** implementation of TCFD recommended **climate change risk program**.	2020 – 2021
Reduce Scope 1 and 2 corporate **emissions intensity by 25%** over the 2017 baseline.	2017 – 2025
Reduce methane specific **emissions intensity by 60%** over the 2017 baseline.	2017 – 2025

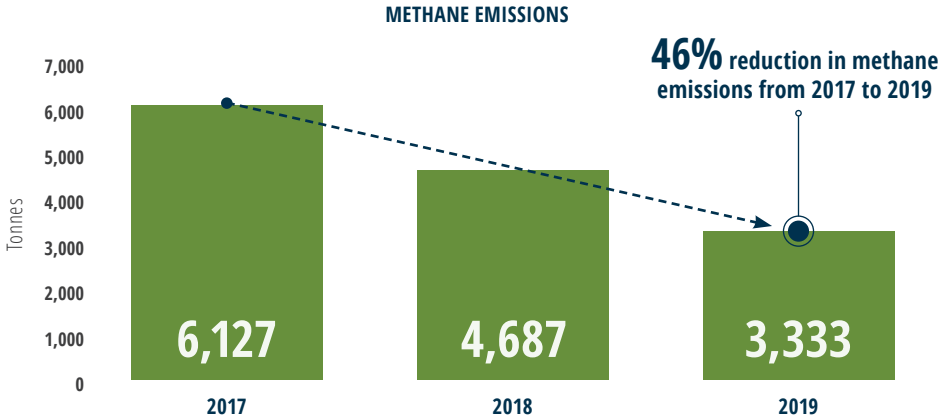
Emissions Management

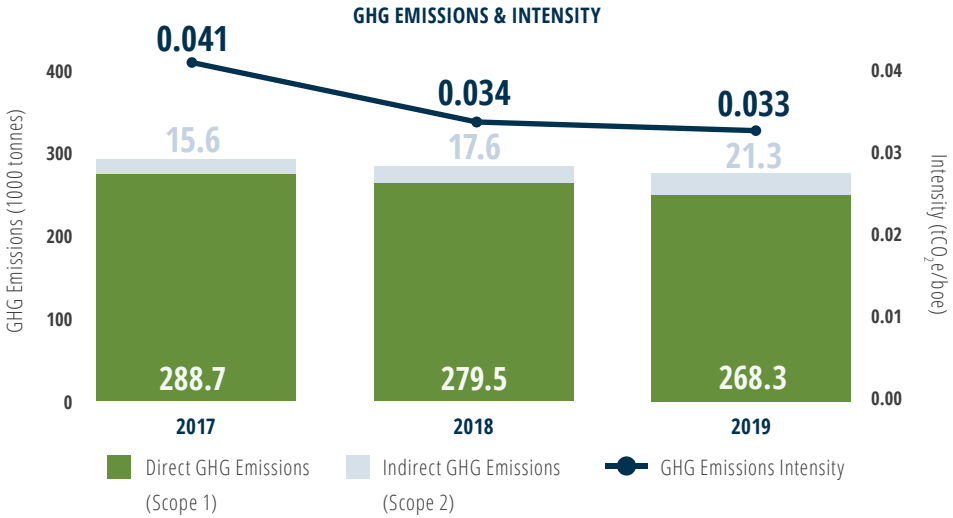
Case Study: Reducing Emissions at Veteran

Tamarack has always been cognizant of vented methane emissions. Not only does it create an environmental impact, but also represents waste and lost revenue. For the past three years, Tamarack has focused on creative ways to reduce the emissions in our core Veteran property, including heat exchanger and vent capture projects.

In 2020, Tamarack undertook a complicated vent capture and reduction project at the largest oil processing facility in Veteran. Despite infrastructure limitations, the Tamarack facilities team was able to modify the facility design to minimize onsite methane gas losses. This system deviates from traditional methods by focusing on flash gas removal during system processes, rather than at the tank farm level, and by focusing on lower system operating pressure, which reduces the volume of gas entrained in the oil when it reaches the tank farm. This project is expected to reduce methane emissions by 120 tonnes (3,000 tCO_2e) annually while improving operational efficiency and reducing revenue losses.

14,650 *tonnes of CO_2e emissions reductions from 2017 to 2019 while also growing production*





0.013 tCO_2e/boe

2019 Veteran Emissions Intensity

With an intensity that competes with low emissions gas plays, this key development area helps set Tamarack up for continued emissions reductions.

Tamarack partners with third-party agents to undertake small emissions reduction projects including pneumatic device upgrades and instrument air conversions. These small projects that require a significant investment of human and financial capital may be overlooked due to time and resource constraints. This innovative partnership enables capital to be deployed on emissions projects faster than would otherwise be possible, reducing Tamarack's overall emissions while preserving capital for other projects.

Climate Change Risk Management

In assessing ESG targets and protocols for Tamarack, our Board also includes climate change-related issues and their impact on the Company's strategy and long-term planning, as well as in all operational decisions and future investments and developments. Our overall corporate planning and annual strategy goal-setting reflect management and the Board's evaluation of the risks, broad impacts and potential opportunities for Tamarack that are inherent with climate change.

Governance

Climate change risk management follows the same path of assessment and oversight as our overall ESG program:

Weekly – ESG team, in concert with management input, investigates and evaluates climate related risks and opportunities.

Monthly – Management meets with the team to discuss and review any identified risks, opportunities and business process changes.

Quarterly – Key issues are communicated to the Board for additional review.

Risk Management

In assessing key ESG factors and risks, climate change-related issues are also considered. The Company's assessment of risk incorporates key frameworks and data sources including Tamarack's materiality assessment, stakeholder feedback, climate change literature, industry-group participation, peer benchmarking and sustainability frameworks – in particular the recommendations of the TCFD. The identified risks guide Tamarack's strategy and long-term planning, as well as operational decisions and future investments.

Metrics and Targets

The organization currently uses the following metrics to assess and manage climate related risk:

- Payback Period & Rate of Return
  Tamarack uses a rate of return and payback period based model for decision making. With a < 2 year payback period on capital investments, the risk of a capital project loss due to long-term climate change impact is low.
- Asset Location & Water Access
  None of Tamarack's assets exist in water stressed countries; however, Tamarack takes water use and access into account during decision making, carefully considers local area water stress during annual planning and innovates to lower fresh water use and increase water recycling.
- Low Emission Capital Allocation
  Tamarack continues to focus on low emissions light oil plays. The emissions intensity of a project is considered when making capital decisions. In 2019, ~80% of invested capital was spent in the low emissions Veteran area.
- Scope 1 and 2 Emissions
  Tamarack monitors and tracks both Scope 1 and 2 emissions to better understand the improvements that are required to meet regulations, minimize costs and offer a low emissions hydrocarbon based energy option.

The organization will continue to evaluate and refine the program to determine the appropriate metrics and targets for tracking and disclosure as well as the associated financial implications.

Climate Change Risk Management

Strategy

	Risk	Timeframe	Description	Strategic Management
Transition Risks	Policy and Legal	Short-Term	Carbon pricing and provincial management programs increase operating and compliance costs.	Incorporate carbon pricing into strategic decision making and capital allocation.
		Medium-Term	Uncertainty around future government regulations related to emissions which may inhibit or change future operations.	Ensure active engagement with government and regulators to foresee and incorporate potential changes and advocate on behalf of industry.
	Technology	Long-Term	Improvements in technology and infrastructure enable viable substitutes, reducing demand for hydrocarbon-based energy sources, reducing revenue and stranding assets.	Focused lowering of corporate decline rates and breakeven pricing to ensure ongoing competitiveness and investment in projects with a short payback period to avoid long-term risks.
	Market	Short-Term	Decreasing consumer demand and lack of egress introduces downward pricing pressure and decreases revenues.	Invest in projects that are financially viable even in a low price environment. Work on product differentiation to improve market access.
	Reputation	Medium-Term	Increasing stakeholder concerns and negative stigmatization of the industry reduces access to capital and human resources, increasing cost of capital and decreasing the ability to attract talent.	Work with stakeholders to understand and mitigate concerns as well as have a voice in public policy making. Work to provide low emissions hydrocarbon options to attract additional capital.
Physical Risks	Acute	Short-Term	Increased severity of extreme weather events such as flooding may interrupt operations, increasing costs and decreasing revenue, and may create risk for asset integrity, decreasing corporate value. Severe weather events also increase the cost of business insurance.	Tamarack's assets are largely located in areas with low risk of acute physical risk. Where acute physical risk exists, emergency response and asset resilience planning is in place to protect the corporation and the surrounding communities.
	Chronic	Long-Term	Changes to weather patterns may limit the window for site access increasing capital project and operating costs and decreasing revenue.	Incorporate increased costs into operations and capital budgeting models and plan for shorter access opportunities. Focus on low risk assets that can be accessed in a variety of conditions.
Opportunities	Resource Efficiency	Short-Term	Process efficiency improvements and innovations around water use and recycling help lower costs while decreasing environmental impact.	Organizational focus on innovation and continuous improvement to identify value saving opportunities.
	Energy Source	Short-Term	Utilization of the lowest emissions energy options and reduction of emissions intensity corporately can minimize exposure to increasing carbon pricing and decrease operational costs.	Emissions reductions tracking and initiatives, as well as incorporation of carbon cost into capital decision making.
	Products and Services & Markets	Medium-Term	Focus on low emission hydrocarbon development could increase demand and open up new markets, increasing revenue and improving resilience in a shifting market place.	Careful evaluation of emissions intensity in long- and short-term capital allocation decision making.

Next steps:

Tamarack will further integrate all ESG factors, including climate change risk, into business processes and decisions to better inform corporate strategy.

Tamarack will continue to increase the scope of metrics employed, especially related to climate change risk and the associated financial implications.

Tamarack defines the following terms when assessing risk:

Short-Term: Next 3 years

Medium-Term: Longer than 3 years, but less than 10 years

Long-Term: 10 years or more

DATA & REFERENCES

EMISSIONS	Units	2017	2018	2019
Production, Annual Average [1]	Boe/d	20,136	24,237	24,072
Annual Average Liquid Weighting [2]	%	59.50	64.90	62.90
Direct Energy Consumption [3]	GJ	1,821,487	2,241,986	2,537,175
Direct Consumption Intensity	GJ/Boe	0.25	0.25	0.29
Indirect Energy Consumption [4]	GJ	98,578	111,276	134,671
Direct GHG Emissions (Scope 1) [5]	tCO_2e	288,661	279,468	268,293
Direct GHG Emissions Attributable to Methane	%	53%	42%	31%
Direct GHG Emissions Intensity (Scope 1)	tCO_2e/Boe	0.039	0.032	0.031
Direct GHG Emissions from 3rd Party Production in TVE Facilities [6]	%	23.81%	22.87%	18.59%
Indirect GHG Emissions (Scope 2)	tCO_2e	15,608	17,619	21,323
Indirect GHG Emissions Intensity (Scope 2)	tCO_2e/Boe	0.0021	0.0020	0.0024
Indirect GHG Emissions from 3rd Party Production in TVE Facilities [6]	%	9.47%	6.88%	5.90%
Direct + Indirect Emissions (Scope 1 + 2)	tCO_2e	304,269	297,086	289,616
Direct + Indirect Emissions Intensity (Scope 1 + 2)	tCO_2e/Boe	0.041	0.034	0.033
Total Gas Flared	1000 m^3	5,555	4,592	5,521
Total Gas Vented	1000 m^3	10,619	7,860	5,307
Methane	tonne	6,127	4,687	3,333
Methane Emissions Intensity	tonne/Boe	0.0008	0.0005	0.0004
NOx Emissions (excluding N_2O)	tonne	1,205	1,577	1,141

(1) Net annual sales volumes on an accounting period basis to conform with Tamarack's annual financial statements

(2) Liquid weighting is total oil, condensate and natural gas liquids production volumes divided by total volume

(3) Energy consumed during operations including produced and purchased fuel, including: propane and natural gas; includes fuel consumed for electricity generation onsite but excludes purchased electricity

(4) Energy consumed from purchased electricity

(5) Direct emissions (Scope 1) include emissions from all six gases identified in the Kyoto protocol; Global warming potential values are as per the Greenhouse Gas Protocol Fourth Assessment Report; additional conversion factors from the Alberta Carbon Offset Emissions Factors Handbook (2019-11 Version) were utilized; all source data is from measured or engineering estimate sources compliant with the Alberta and Saskatchewan regulations

(6) The ratio of 3rd party production volumes (not owned by Tamarack) to the total throughput volume of each Tamarack operated facility was applied to the facility's respective emissions output and aggregated

EMISSIONS (Continued)	Units	2017	2018	2019
SOx Emissions	tonne	6.24	0.20	2.66
VOC Emissions	tonne	50.00	50.51	26.50
CO Emissions	tonne	835.07	624.44	363.51
PM_{10} Emissions	tonne	4.88	4.65	5.81

WATER	Units	2017	2018	2019
Fresh Water Withdrawal [7] [8] [9]	m^3	399,471	324,202	323,765
Fresh Water Withdrawal Intensity	m^3/Boe	0.054	0.037	0.037
Non-fresh Water Withdrawal	m^3	-	-	124,899
Non-fresh Water Withdrawal Intensity	m^3/Boe	-	-	0.01
Produced Water Withdrawals	m^3	1,255,806	1,292,682	1,367,605
Total Water Consumption	m^3	439,039	468,041	1,021,924
Recycled/Reused Water	m^3	39,568	143,839	573,259

LAND MANAGEMENT	Units	2017	2018	2019
Number of Operated Producing Wells – Gross [10]	wells	1576	1628	1761
Number of Operated Inactive Wells – Gross [11]	wells	617	615	707
Number of Operated Abandoned Wells – Gross [12]	wells	229	248	255
Number of Well Abandonments – Gross [13]	wells	23	24	14
Number of Well Abandonments – Net	wells	21	22	13

(7) Fresh water for the purposes of this report is defined as having a total dissolved solids content of equal to or less than 4,000mg/L as established by the Alberta Government

(8) Tamarack does not conduct operations or withdraw fresh water from any regions where the water stress is identified as high or extremely high and adopts capital and operating plans that account for local seasonal water stress to ensure that fresh water withdrawal does not coincide with periods of necessity for communities and other water dependent industries such as agriculture

(9) All fresh water withdrawn is consumed in operations, therefore freshwater consumption is equal to freshwater withdrawn in all periods

(10) The reported numbers will differ from those reported in the AIF; this report includes water wells in the count

(11) Inactive wells include wells with a status of standing, suspended and downhole abandoned (not cut and capped)

(12) Abandoned wells and cut and capped and ready for, or actively engaged in, reclamation (zonal or downhole abandonments are excluded)

(13) This number decreased in 2019 as more capital was allocated to the reclamation program

LAND MANAGEMENT (Continued)	Units	2017	2018	2019
Active Reclamation Sites	sites	0	142	254
Reclamation Certificates Received	count	0	27	30
Net ARO Spend	$ CAD	$898,000	$1,901,000	$3,154,000
Net ARO Spend to Company Inactive Liability [14] [15]	%	1.15	2.33	3.97

SPILL MANAGEMENT	Units	2017	2018	2019
Reportable Spills (excluding pipeline spills) [16] [17]	count	0	1	1
Reportable Pipeline Spills [17] [18]	count	1	2	1
Pipeline Incident Ratio (incidents per 1000 km operating & permitted length)	count/1000km	0.61	1.21	0.41
Volume of Reportable Non-Pipeline Spills [16] [17]	m^3	0.00	2.9	1.0
Volume of Pipeline Spills [17] [18]	m^3	7.0	3.7	2.0
Volume of Reportable Non-Pipeline Spills per million BOE produced	m^3/MMBoe	0.0000	0.2211	0.0885
Volume of Pipeline Spills per million BOE produced	m^3/MMBoe	0.6707	0.2820	0.1769

HEALTH AND SAFETY	Units	2017	2018	2019
Total Injuries	count	11	13	10
Lost-time Accidents	count	3	1	1
Medical Aid	count	3	3	5
Modified Duties	count	1	2	-
First Aid	count	4	7	4
Lost-time Recordable Injury Frequency - Employee and Contractor [19]	count * 200,000 hrs/total hrs	0.33	0.10	0.12
Total Recordable Injury Frequency - Employee and Contractor [20]	count * 200,000 hrs/total hrs	0.77	0.59	0.70
Fatalities (Employees and Contractors)	count	0	0	0
Total Internal Inspections Completed	count	NPT	NPT	731

(14) Inactive liability includes well and facility inactive liabilities
(15) The percent noted for 2019 is lower that the 4.33% required under the AER ABC program because the number noted here includes assets in both Alberta and Saskatchewan
(16) Reportable spills (non-pipeline) include any spill volume off lease and any volume on lease greater than or equal to 2m3
(17) Tamarack's operations are all on shore; no spills impacted shorelines or the artic
(18) All pipeline spills must be reported regardless of volume
(19) Lost-time recordable injury frequency is calculated based on actual recorded lost-time incidents x 200,000 person hours / total corporate hours; total corporate hours are calculated based on the Canadian Association of Petroleum Producers guide for Health and Safety Performance Metrics
(20) Total recordable injury frequency excludes first aid injuries and is calculated based on actual total recorded incidents (lost-time, medical aid and modified duties) x 200,000 person hours / total corporate hours; total corporate hours are calculated based on the Canadian Association of Petroleum Producers guide for Health and Safety Performance Metrics

COMMUNITY AND INDIGENOUS	Units	2017	2018	2019
Indigenous Stakeholders/Counties	count	55	53	53
Community Direct Investment	$ CAD	$102,731	$161,947	$197,356
Contributions by Employees and Consultants	%	4.8%	3.1%	5.4%
Dollar Donated/1000 Operating Netback	$ CAD	$0.65	$0.72	$0.90
Proved Reserves In or Near Areas of Conflict	%	0%	0%	0%
Probable Reserves In or Near Areas of Conflict	%	0%	0%	0%
Proved Reserves On or Near Indigenous Land	%	14.9%	13.9%	11.7%
Probable Reserves On or Near Indigenous Land	%	7.7%	7.7%	10.3%

WORKFORCE	Units	2017	2018	2019
Total Employees & Office Consultants	count	53	56	64
Field (Permanent)	count	4	5	7
Office (Permanent)	count	36	38	43
Field (Contractor and Temporary)	count	NPT	NPT	74
Office (Consultants and Temporary)	count	13	13	14
Voluntary Turnover [21]	%	2.8%	2.4%	2.1%
Female Employees & Office Consultants	%	42%	38%	36%
Male Employees & Office Consultants	%	58%	63%	64%
Non-binary Employees & Office Consultants	%	-	-	-
Female Supervisory & Professional Positions	%	28%	24%	23%
Female Management & Executive Team	%	-	-	-
Female Board of Directors	%	11%	13%	13%
Ethnic Diversity (Contractors & Employees)	%	NPT	NPT	5%
First Nations Representation (Contractors & Employees)	%	NPT	NPT	3%
Employees Under 30	%	10%	9%	12%
Employees 30-50	%	58%	61%	56%
Employees Over 50	%	33%	30%	32%

(21) Voluntary turnover is comprised of one under 30 female (2017); one 30-50 female (2018); and one 30-50 male (2019)

REFERENCES TO STANDARDS

SASB References

Framework	Reference	Explanation	Page
SASB	EM-EP-110a.1	Gross global Scope 1 emissions, % CH_4, % covered under emissions limiting regulations	30, 33, 34
SASB	EM-EP-110a.2	Amount of gross global Scope 1 emissions from: (1) flared (2) combustion (3) process (4) vented (5) fugative	33
SASB	EM-EP-110a.3	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	29, 30
SASB	EM-EP-120a.1	Air emissions of the following pollutants: (1) NOx (excluding N_2O) (2) SOx (3) VOCs and (4) PM	33, 34
SASB	EM-EP-140a.1	(1) Total fresh water withdrawn (2) total fresh water consumed, % of regions with high or extremely high baseline stress	34
SASB	EM-EP-160a.1	Description of environmental management policies and practices for active sites	24, 25
SASB	EM-EP-160a.2	Number and aggregate volume of pipeline spills, volume in arctic, volume impacting shorelines and volume recovered	35
SASB	EM-EP-210a.1	% of (1) proved and (2) probable reserves in or near areas of conflict	-
SASB	EM-EP-210a.2	% of (1) proved and (2) probable reserves in or near Indigenous land	20
SASB	EM-EP-210a.3	Discussion of engagement processes and due diligence practices with respect to human rights, Indigenous rights and operation in areas of conflict	Code of Conduct
SASB	EM-EP-210b.1	Discussion of process to manage risks and opportunities associated with community rights and interests	Consultation policy
SASB	EM-EP-320a.2	Discussion of management systems used to integrate a culture of safety throughout the exploration and production life cycle	14, 15
SASB	EM-EP-420a.4	Discussion of how price and demand for hydrocarbons and/or climate regulation influence the capital expenditure strategy for exploration, acquisition, and development of assets	31, 32
SASB	EM-EP-510a.2	Description of the management system for prevention of corruption and bribery throughout the value chain	Code of Conduct
SASB	EM-EP-530a.1	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	31, 32

TCFD References

Framework	Disclosure	Explanation	Page
TCFD	Governance (a)	Board oversight	31
TCFD	Governance (b)	Management's role	31
TCFD	Strategy (a)	Identification of risks and opportunities	32
TCFD	Strategy (b)	Impact of risks and opportunities	32
TCFD	Risk Management (a)	Risk identification and assessment process	31
TCFD	Metrics and Targets (a)	Metrics	31
TCFD	Metrics and Targets (b)	GHG emissions	31, 33
TCFD	Metrics and Targets (c)	Targets and performance	31

GRI References

Framework	Disclosure	Explanation	Page
GRI	102-1	Name of the organization	3
GRI	102-2	Activities, brands, products, and services	5
GRI	102-3	Location of headquarters	5
GRI	102-4	Location of operations	5
GRI	102-14	Statement from senior decision-maker	3-4
GRI	102-15	Key impacts, risks, and opportunities	9-10
GRI	102-16	Values, principles, standards, and norms of behavior	12, Code of Conduct
GRI	102-17	Mechanisms for advice and concerns about ethics	Whistle Blower Policy
GRI	102-18	Governance structure	7, 12, Information Circular
GRI	102-19	Delegating authority	7, 12, Information Circular
GRI	102-20	Executive level responsibility for economic, environmental, and social topics	7, 12, Information Circular
GRI	102-22	Composition of the highest governance body and its committees	Information Circular
GRI	102-23	Chair of the highest governance body	44
GRI	102-25	Conflicts of interest	Information Circular
GRI	102-26	Role of highest governance body in setting purpose, values, and strategy	7
GRI	102-29	Identifying and managing economic, environmental, and social impacts	7, 10, 31, 32
GRI	102-31	Review of economic, environmental, and social topics	31
GRI	102-32	Highest governance body's role in sustainability reporting	7, ES&S Mandate

GRI References (Continued)

Framework	Disclosure	Explanation	Page
GRI	102-35	Remuneration policies	Information Circular
GRI	102-36	Process for determining remuneration	Information Circular
GRI	102-40	List of stakeholder groups	16
GRI	102-41	Collective bargaining agreements	36
GRI	102-45	Entities included in the consolidated financial statements	MD&A and Financial Statements
GRI	102-46	Defining report content and topic boundaries	10
GRI	102-47	List of material topics	10
GRI	102-48	Restatements of information	N/A
GRI	102-49	Changes in reporting	N/A
GRI	102-50	Reporting period	4
GRI	102-51	Date of most recent report	N/A
GRI	102-52	Reporting cycle	4
GRI	102-53	Contact point for questions regarding the report	44
GRI	102-54	Claims of reporting in accordance with the GRI Standards	2
GRI	102-55	GRI content index	40
GRI	201-2	Financial implications and other risks and opportunities due to climate change	31-32
GRI	302-1	Energy consumption within the organization	33
GRI	302-3	Energy intensity	33

GRI References (Continued)

Framework	Disclosure	Explanation	Page
GRI	303-3	Water withdrawal	34
GRI	303-5	Water consumption	34
GRI	305-1	Direct (Scope 1) GHG emissions	33
GRI	305-2	Energy indirect (Scope 2) GHG emissions	33
GRI	305-4	GHG emissions intensity	33
GRI	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	33-34
GRI	307-1	Noncompliance with environmental laws and regulations	28
GRI	401-1	New employee hires and employee turnover	36
GRI	403-1	Occupational health and safety management system	14-15
GRI	403-2	Hazard identification, risk assessment, and incident investigation	15
GRI	403-6	Promotion of worker health	14
GRI	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	14-15
GRI	403-9	Work-related injuries	35
GRI	405-1	Diversity of governance bodies and employees	13, 35

Abbreviations

$MM	Millions of dollars	**LRIF**	Lost-time recordable incident frequency
ABC	Area Based Closure	**M^3**	Cubic meter
AER	Alberta Energy Regulator	**MD&A**	Management's Discussion and Analysis
AFF	Adjusted funds flow	**MMBOE**	Million barrels of oil equivalent
ARO	Asset Retirement Obligation	**N_2O**	Nitrous oxide
Bbl	Barrel	**NOx**	Nitrogen oxides
BOE	Barrel of oil equivalent	**P**	Probable
CAPP	Canadian Association of Petroleum Producers	**PM_{10}**	Particulate matter with a radius greater than or equal to 10 micrometers
CH_4	Methane	**SASB**	Sustainability Accounting Standards Board
CO	Carbon monoxide	**SOx**	Sulfur oxides
CO_2	Carbon dioxide	**TCFD**	Task Force on Climate-Related Financial Disclosures
D	Day	**tCO_2e**	Tonnes of carbon dioxide equivalent
EPAC	Explorers and Producers of Canada	**TP**	Total proved
ES&S	Environment, Safety and Sustainability	**TRIF**	Total recordable incident frequency
ESG	Environment, Social and Governance	**TVE**	Tamarack Valley Energy Ltd.
GHG	Greenhouse gas	**UN SDG**	United Nations Sustainable Development Goals
GJ	Gigajoule	**UNDRIP**	United Nations Declaration on the rights of indigenous peoples
GRI	Global Reporting Initiative	**VOC**	Volatile organic compound

Conversions

1 barrel of oil (bbl)	1 barrel of oil equivalent
1 cubic meter (m^3)	6.29281 barrels (bbl)
1 cubic meter (m^3)	1000 litres (L)
1 thousand cubic feet gas (mcf)	1/6 barrel of oil equivalent
1 tonne (t)	1000 kilograms (kg)
1 tonne carbon dioxide (CO_2)	1 tonne carbon dioxide equivalent (tCO_2e)
1 tonne methane (CH_4)	25 tonnes carbon dioxide equivalent (tCO_2e)
1 tonne nitrous oxide (NO_2)	298 tonnes carbon dioxide equivalent (tCO_2e)

Definitions

Inactive Liability
future costs associated with assets that are no longer productive, including abandonment, remediation and reclamation

Scope 1 (Direct) Emissions
emissions that occur directly through the process of business operations that are owned or within the direct control of the corporation including stationary combustion, incineration or flaring of product, product loses to atmosphere and mobile combustion where applicable as per Greenhouse Gas Protocol guidelines

Scope 2 (Indirect) Emissions
emissions from purchased energy where the organization benefits from the energy production but is not in control of the emissions including electricity, steam, heat or cooling as per Greenhouse Gas Protocol guidelines

ADVISORIES

We have taken care to ensure the information in this report is accurate. However, the data presented in this report includes aspirational goals, approximations and estimates, which will differ from actual results, and is for informational purposes only. We disclaim any liability whatsoever for errors or omissions. Some of the information in this report may have been disclosed previously in other Tamarack public disclosure, and such disclosure is not intended in any way to be qualified, amended, modified or supplemented by information herein.

Material may be used within this report to describe issues for voluntary sustainability reporting that are considered to have the potential to significantly affect sustainability performance in our view and may be important in the eyes of internal or external stakeholders. However, material for the purposes of this report should not be read as equating to any use of the word in other public reporting or filings. This report does not provide investment advice, and readers are responsible for making their own financial and investment decisions.

There is no single standard system that applies across companies for compiling and calculating the quantity of GHG emissions and other sustainability metrics attributable to our operations. Accordingly, such information may not be comparable with similar information reported by other companies. Our GHG emissions are derived from public and regulator reported data generated from a combination of measured volumes and advanced engineering estimates that may be different from those applicable to the financial information presented in our consolidated financial statements and are, in particular, subject to less sophisticated internal documentation as well as preparation and review requirements, including the general internal control environment. We may change our policies for calculating these GHG emissions and other sustainability metrics in the future without prior notice.

This report contains certain forward-looking information related to future, not past events and circumstances – including those which may relate to our strategies, focus, goals, ambitions, aims, targets, plans, objectives, operations, results and financial performance. The use of any of the words "will", "may", "anticipate", "expect", "objective", "believe", "plans", "intends", "potential", "continue", "guidance", and similar expressions are intended to identify those forward-looking statements. Forward-looking statements involve risk and uncertainty because they relate to events and depend on circumstances that will or may occur in the future and are outside of our control. These statements are only predictions. Actual results or outcomes may differ from those expressed in such statements. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievement since such expectations are inherently subject to significant business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause our actual results to differ materially from those expressed or implied in any forward-looking statements made by, or on our behalf, in this report. More particularly and without limitation, this report contains forward-looking information and statements about: our goals, strategy, plans and focus; our sustainability program, practices, initiatives, plans, goals and reporting and the impact and timings thereof; our comprehensive risk management plan in response to COVID-19, the development and implementation of additional measures and the commitment to stakeholders in response to the pandemic; our goal to assign financial and qualitative values to risks and opportunities; the development of business systems and processes to provide prospective data and better inform decision making; Tamarack's sustainability program and implementing a phased approach; our materiality assessment and the identification, prioritization and monitoring of key factors; Tamarack's sustainability scorecard, commitments and goals relating thereto including with respect to: transparency, diversity and governance practices; prioritizing health and safety, rectifying risks and continuous education; meaningful engagement, mutual transparency and shared economic value with community partners; active partnerships, support for cultural and knowledge sharing with our Indigenous stakeholders; empowering our people through education, active engagement and inclusion; land and biodiversity preservation including practices that minimize our ecosystem impact, complete land restoration and management of inactive liabilities including budgeting $4.0 million for abandonment and reclamation activities in 2020; water management including adherence to water regulations, prudent use of water and use of non-potable water sources; and reducing GHG emissions, lower emission intensity and climate change risk management including the vent capture and reduction project at a facility in Veteran, the implementation thereof and expectations relating thereto including reducing methane emissions by ~350 tonnes annually.

Forward-looking information is based on a number of factors and assumptions which have been used to develop such information but which may prove to be incorrect. In addition to other factors and assumptions which may be identified in this report, assumptions have been made regarding and are implicit in, among other things: our ability to implement and the success of our sustainability program, practices, initiatives and plans, the timings thereof and impact on Tamarack achieving its goals relating thereto including with respect to: transparency, diversity and governance practices; prioritizing health and safety, rectifying risks and continuous education; meaningful engagement, mutual transparency and shared economic value with community partners; active partnerships, support for cultural and knowledge sharing with our Indigenous stakeholders; empowering our people through education, active engagement and inclusion; land and biodiversity preservation including practices that minimize our ecosystem impact, complete land restoration and management of inactive liabilities and the costs thereof; water management including adherence to water regulations, prudent use of water and use of non-potable

water sources; and reducing GHG emissions, lower emission intensity and climate change risk management including the implementation, efficacy and impact of the vent capture and reduction project at a facility in Veteran; our ability to execute our comprehensive risk management plan in response to COVID-19; the accuracy of our materiality assessment; the success of future drilling, development and completion activities; the performance of existing wells; the performance of new wells; the performance of enhanced oil recovery projects; the availability and performance of facilities and pipelines; the geological characteristics of Tamarack's properties; the successful application of drilling, completion and seismic technology; prevailing weather and break-up conditions and access to our drilling locations; commodity prices, price volatility, price differentials and the actual prices received for the Company's products, royalty regimes and exchange rates; the application of regulatory and licensing requirements; the availability of capital, labour and services; our ability to complete planned capital expenditures within budgeted cost estimates; the ability to market our oil and gas successfully; our ability to integrate assets and employees acquired through acquisitions; the creditworthiness of industry partners and our ability to acquire additional assets. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which have been used.

Although Tamarack believes that the expectations and assumptions on which the forward-looking statements are based are reasonable, undue reliance should not be placed on the forward-looking statements because Tamarack can give no assurance that they will prove to be correct. Since forward-looking statements address future events and conditions, by their very nature they involve inherent risks and uncertainties. Actual results could differ materially from those currently anticipated due to a number of factors and risks. These risks and uncertainties include, but are not limited to: the oil and gas industry in general (e.g., operational risks in development, exploration and production; delays or changes in plans with respect to exploration or development projects or capital expenditures; the uncertainty of reserve estimates; the uncertainty of estimates and projections relating to production, costs and expenses, and health, safety and environmental risks); incorrect assessment of the value of acquisitions; failure to realize the benefits of acquisitions; constraint in the availability of services; commodity price and exchange rate fluctuations; changes in legislation (including but not limited to tax laws, royalty regimes and environmental legislation); adverse weather or break-up conditions; uncertainties resulting from potential delays or changes in plans with respect to exploration or development projects or capital expenditures; litigation risks; and the spread of the COVID-19 virus and the impact on Tamarack's business and the demand for Tamaracks' products, global supply chains and economic activity in general. These and other risks are set out in more detail in Tamarack's annual information form for the year ended December 31, 2019 (the "AIF") and Tamarack's management's discussion and analysis for the year ended December 31, 2019 and each of the periods ended March 31, 2020 and June 30, 2020 (collectively, the "MD&As") . The AIF and MD&As can be accessed on Tamarack's website at www.tamarackvalley.ca or under Tamarack's profile on www.sedar.com.

Forward-looking information is based on current expectations, estimates and projections that involve a number of risks and uncertainties which could cause actual results to differ materially from those anticipated by the proposed management and described in the forward-looking information. The forward-looking information contained in this report is made as of the date hereof and the proposed management undertakes no obligation to update publicly or revise any forward-looking information, whether as a result of new information, future events or otherwise, unless required by applicable securities laws. The forward-looking information contained in this report is expressly qualified by this cautionary statement.

We have adopted the standard of 6 Mcf:1 barrel when converting natural gas to barrels of oil equivalent ("BOE") when reporting net product sales in this report, which is aligned with our consolidated financial statements. BOE may be misleading, particularly if used in isolation. A BOE conversion ratio of six thousand cubic feet per barrel of natural gas to barrels of oil equivalence is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. All BOE conversions in the report are derived from converting gas to oil in the ratio mix of six thousand cubic feet of gas to one barrel of oil.

2020 SUSTAINABILITY REPORT

Directors

Floyd Price - Chairman [3][4]

Jeff Boyce [1][4]

Ian Currie [2][4]

John Leach [1][2]

Brian Schmidt (Aakaikkitstaki)

Marnie Smith [1][3]

Robert Spitzer [2][3]

Management Team

Brian Schmidt (Aakaikkitstaki)
President and
Chief Executive Officer

Steve Buytels
Vice President - Finance and
Chief Financial Officer

Dave Christensen
Vice President -
Engineering

Ken Cruikshank
Vice President -
Land

Kevin Screen
Vice President -
Production & Operations

Scott Reimond
Vice President -
Exploration

Martin Malek
Vice President -
Corporate Planning &
Business Development

Lead Bank Syndicate
National Bank of Canada

Legal Counsel
Stikeman Elliott LLP

Auditor
KPMG LLP

Stock Exchange Listing
Toronto Stock Exchange
Stock Symbol - TSX: TVE

Corporate Office
Tamarack Valley Energy Ltd.
Fifth Avenue Place – East Tower Suite 600,
425 - 1st Street SW
Calgary, AB T2P 3L8

Tel: 403.263.4440
Fax: 403.263.5551
www.tamarackvalley.ca

(1) Member of the Audit Committee of the Board of Directors
(2) Member of the Reserves Committee of the Board of Directors
(3) Member of the Compensation & Governance Committee of the Board of Directors
(4) Member of the Environment, Safety and Sustainability Committee of the Board of Directors

For Questions About this Report Contact:
June-Marie Innes - Director, Finance & Sustainability
403.263.4440 | jm.innes@tamarackvalley.ca

tamarack valley ENERGY