ONE
Team. Focus. Future.

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Message From the CEO

Dear Stakeholders,

As one of the largest natural gas producers in the United States operating in two of the lowest emissions basins globally, SWN's integrated business and sustainability strategy empowers a single-minded focus on sustainable value creation.

Our commitment to sustainability extends beyond our operations, as we strive to meet the intertwined global challenges of delivering a lower-carbon future while securing the growing global demand for reliable, cleaner energy. In 2022, we continued to execute on our strategy as we completed the integration of our Haynesville business, which we acquired in 2021. We now supply the largest volume of natural gas to LNG exporters, expanding our ability to support a lower-carbon future while bolstering the long-term resilience and value creation capacity of our business.

ONE TEAM

Driving the execution of our strategy is a high-performance, inclusive culture centered around our people who, as One Team, bring out the best in and look out for one another, based on our core values. We credit our One Team culture for driving near-record safety performance in 2022 and delivering Total Recordable Incident and Recordable Vehicle Incident rates that are among the lowest in the industry. *And One Team means that both employees and contractors are counted in our safety performance metrics.*

One Team also means we all play a part in fostering our winning culture. That's why, in 2022, 100% of employees completed our annual ethics training, and why ownership, collaboration and integrity are among our core values.

ONE FOCUS

As One Team, we are focused on sustainable value creation. This means that, as we seek to create economic value from the development of our assets, we do so responsibly, mindful of how our operations might impact the environment locally and globally. In early 2022, building on nearly a decade of leadership in longer-term

emissions reduction efforts, we announced a Scope 1 greenhouse gas (GHG) emissions reduction goal of 50% by 2035. This goal puts us on a path to achieve net-zero emissions by 2050, consistent with limiting the increase in average global temperature to 1.5 degrees Celsius. *By tackling key projects that reduced emissions from combustion, venting and other activities, we made significant progress toward our goal, reducing Scope 1 emissions by 17% in 2022.* In addition, we achieved our 2022 goal to have 100% of SWN wells certified as low-emissions, responsibly produced gas.

SWN also continues to be the first and only company in our industry to achieve and sustain freshwater neutral operations, meaning we return more freshwater back to the environment than we consume. In 2022, we achieved our seventh year of freshwater neutral operations, delivering nearly 17.1 billion gallons of freshwater to local communities – more than we used in our operations during the same time.

ONE FUTURE

We are focused on sustainability because we care about the future.

For our employees, this means a continued focus on providing strong career and development opportunities in an environment where all are treated with dignity and respect, and where diversity of thought and perspective are valued and prioritized. In 2022, 100% of senior management completed inclusion training, with the rest of the company expected to do so in 2023, and 32% of new employees were diverse, which helped SWN take an important step forward as we look to the next generation of leaders. We also launched a diversity and inclusion survey to hear directly from our employees about how we are doing. Our employees identified as strengths that their managers provide a broad sense of belonging and inclusion, that they believe that SWN is open to diverse ideas, and that there is fair treatment in the workplace. *As part of our commitment to assess and drive DE&I progress going forward, we are publishing our EEO-1 data for the first time this year.*

We also work to bolster the future of our communities. Our approach to community engagement provides a proven process with built-in flexibility to respond to unique needs. SWN's leaders partner closely with local officials, first responders, nonprofits, and schools in our communities to identify areas where we can have the most impact.

Our 2022 focus areas, paired with employee volunteer and giving opportunities, were education, safety, workforce development, and food insecurity. In 2022, we announced that we will more than double the amount of employee donations eligible for employee matching funds.

Finally, SWN's strong governance systems incentivize a forward-thinking, steadfast commitment to ethics, integrity, transparency and model corporate citizenship. SWN's Board of Directors works closely with our management team to oversee sustainability, including addressing related risks and opportunities. *We tie accountability for sustainability performance improvements in safety, spills and emissions to our annual bonus plan, together representing 15% of the overall bonus.*

We are grateful for the hard work and dedication our teams show every day. As One Team with one focus, we are continuously striving for one bright future as we create economic value and achieve our sustainability goals to benefit all SWN stakeholders.

Sincerely,

Bill Way

Bill Way
President & Chief
Executive Officer

Our Core Values

Our people are our greatest asset. Thanks to their determination, resilience and commitment to continuous improvement, SWN is a leading natural gas provider that creates sustainable value for our stakeholders. Our core values reflect our shared commitment to bring out the best in one another and build a diverse and inclusive work environment.

Our culture and performance are inspired by these core values and our corporate formula — the right people, doing the right things, wisely investing the cash flow from our underlying assets is how we deliver value plus.

$$\frac{R^2}{A} \to V^+ \text{®}$$

People
Every person is valued, supported and treated with dignity and respect

Ownership
We are responsible and accountable for our actions

HSE
We protect people and preserve the environment

Collaboration
Together, we learn and achieve enhanced results

Integrity
Our actions are authentic and engender trust

Innovation
We innovate through agile learning and applying new ideas

Resilience
We persevere, recover and adjust

ESG Highlights

Environmental Highlights

50%
long-term Scope 1 GHG-reduction goal set in 2022

17%
reduction in Scope 1 GHG emissions intensity in 2022 from 2021 baseline

20%
year-over-year reduction in methane intensity

0%
routine flaring of associated natural gas

100%
certified responsibly sourced gas

Scope 1 & 2
GHG emissions disclosed

17.1B
gallons of freshwater returned to the environment

$12.9M
invested in our Freshwater Neutral conservation program

7th
year in a row achieving freshwater neutrality

Social Highlights

99%
average women's salaries to average men's salaries in the same job title in 2022

0.41
Recordable Vehicle Incident Rate in 2022 *

5%
reduction in employee + contractor Total Recordable Incident Rate in 2022

32%
of new hires in 2022 were ethnically or gender diverse

21%
of employees are women

100%
completion in DE&I training program for Director-level employees and above

$970M+
paid in taxes, fees and payroll over the last five years

$3.8B+
paid in royalty interest payments over the last five years

* One of the lowest rates among AXPC peer companies.

Governance Highlights

44%†
of board members are diverse (gender, nationality, ethnicity)

66%
of board members have experience in health, safety, environmental and/or corporate responsibility

15%
of total bonus compensation linked to ESG components

TCFD
expanded disclosures in the Corporate Responsibility Report to align with the four core TCFD pillars

Climate
update climate scenario analysis biannually

Accountability
methane intensity target included in compensation program

†Two directors are female, one director is nationally diverse, one director is ethnically diverse. On June 1, 2023, SWN added a new director, which increased the diversity of the Board to 50%.

One Vision
Strategy

SWN has a long history of consistently building our business while persevering through industry cycles. With a portfolio of large-scale assets and guided by an experienced and disciplined leadership team, SWN creates sustainable value, protects financial strength, captures tangible benefits of scale, and progresses leading execution to reach our goals—always doing things the right way.

Who We Are

As a leading U.S. natural gas producer, SWN works responsibly to secure the role of natural gas in a lower-carbon future. We are uniquely positioned to deliver on this promise through our strategically located operations in the two premier U.S. natural gas basins – Haynesville and Appalachia. Through a complementary portfolio of large-scale assets, access to premium and global markets, and the determination of our people, SWN strives to create long-term value for all stakeholders. For our employees, that means providing a safe and inclusive workplace. For our shareholders, it means delivering consistent and resilient returns on capital. For the communities in which we live and operate, it means protecting our neighbors and the environment.

For nearly a century, SWN has persevered through industry cycles while taking strategic actions that built up the business – deepening our high-quality inventory, strengthening our balance sheet and positioning the company to enhance returns. Guided by an experienced and disciplined leadership team, SWN continues to embrace challenges as a means to innovate and evolve. We believe our commitment to doing things the right way ensures the sustainability of our business and our world.

Our Strategy Has Four Pillars:

Create Sustainable Value
- Enhance corporate and shareholder economic returns
- Deepen and upgrade the quality and capital efficiency of asset base and inventory
- Deliver sustainable free cash flow
- Convert resources to reserves

Protect Financial Strength
- Target sustainable leverage of 1.5x–1.0x and total debt of $3.5 billion–$3.0 billion
- Improve financial profile to achieve investment grade
- Hedge to protect capital investments, cover costs and meet other financial commitments
- Lower debt, extend debt maturity, expand liquidity
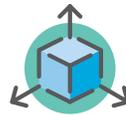
Capture Tangible Benefits of Scale
- Building a competitive advantage through scale
- Demonstrated ability for large-scale asset integration
- Continue to capture synergies, deepen economic inventory, improve cost efficiencies through the cycle, leverage strength of marketing and transportation capabilities, expand opportunity set, lower enterprise risk and increase the optionality of the business

Progress Leading Execution
- Further enhance well performance, optimize well costs and reduce base decline
- Marketing and transportation optimization to grow margins and maintain flow assurance
- Build on data analytics, emerging technology, strategic sourcing, stringent cost management, operate with health, safety and environment (HSE)/environment, social and governance (ESG) as core values
- Vertical integration and large-scale asset development expertise

Haynesville Highlight: Expanding LNG Corridor is Key to Our Business and Sustainability Strategy

Our Haynesville acquisitions enhanced our ability to deliver resilient free cash flow and economic returns on capital for our shareholders. Importantly, by complementing our assets in Appalachia with Haynesville, we also expanded our global market reach through increased access to the Gulf Coast, including the LNG corridor. SWN is already the largest supplier of natural gas to LNG exporters, with approximately 1.5 Bcf per day, and is well positioned to supply this growing demand center. As a result, SWN is meaningfully contributing to a sustainable energy future by delivering reliable and affordable lower-carbon energy – while supporting energy security for all.

Sustainability Strategy

We believe that our approach to sustainability, including environmental, social and governance (ESG) topics, and the integral role it plays in our corporate strategy, is a key differentiator for our business. SWN takes a thoughtful, strategic approach that is focused on where we can make a meaningful impact. Our approach is governed by the following principles, which are designed to enhance SWN's position as an industry leader, the resilience of our business, and our ability to deliver lasting shareholder and stakeholder value.
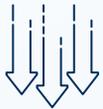
Minimizing Carbon Footprint

Working responsibly to secure the role of natural gas in a lower-carbon future, including by reducing our own emissions.

Social Responsibility

Ensuring a safe and inclusive workplace for employees and contractors, and positively impacting the communities in which we live and work.

Sustainable Value

Creating sustainable value requires meaningful and impactful actions that consider our stakeholders' perspectives and align with our corporate strategy.

About This Report

At Southwestern Energy, we hold ourselves to a high standard of accuracy and excellence in everything we do, including the content of this report. The data in this report is gathered and verified by a cross-functional team of subject-matter experts. The content is reviewed by the ESG Steering Committee, our management and executive leadership teams, and the Health, Safety, Environmental & Corporate Responsibility Committee (HSE&CR Committee) of the Board of Directors. Our internal audit team has verified the content of the Performance Metrics and has provided reasonable assurance on the validity of such Performance Metrics. Although the data in this report is based on accepted methodologies and assumptions believed to be reasonable at the time of preparation, they should not be considered as guarantees, and may be subject to further revisions.

Key Issues

We updated our materiality assessment in 2021 to incorporate our post-Haynesville operations and evolving stakeholder views on sustainability issues. Based on those engagement efforts, we determined there were no material changes in 2022. The box at right sets out our most important sustainability issues:

Economic Performance

- Company financial strength
- Shareholder return
- Commodity price volatility
- Free cash-flow generation

Governance

- Setting appropriate metrics and incentives
- Risk management
- Regulation/compliance
- Public policy engagement

Workforce

- Health and safety
- Managing contractors
- Diversity, equity and inclusion (DE&I)
- Talent attraction, retention, development and career transitions

Environment

- Environmental management, policies, targets and metrics
- Climate-related risks and opportunities and emissions reductions
- Environmental performance monitoring
- Wellbore integrity
- Water quality, sourcing and wastewater management
- Spill prevention and management; asset integrity
- Biodiversity and surface impacts

Communities

- Economic impact in local communities
- Proactive community engagement
- Impacts on community infrastructure and quality of life
- Community health and wellness
- Freshwater Neutral's impact in communities
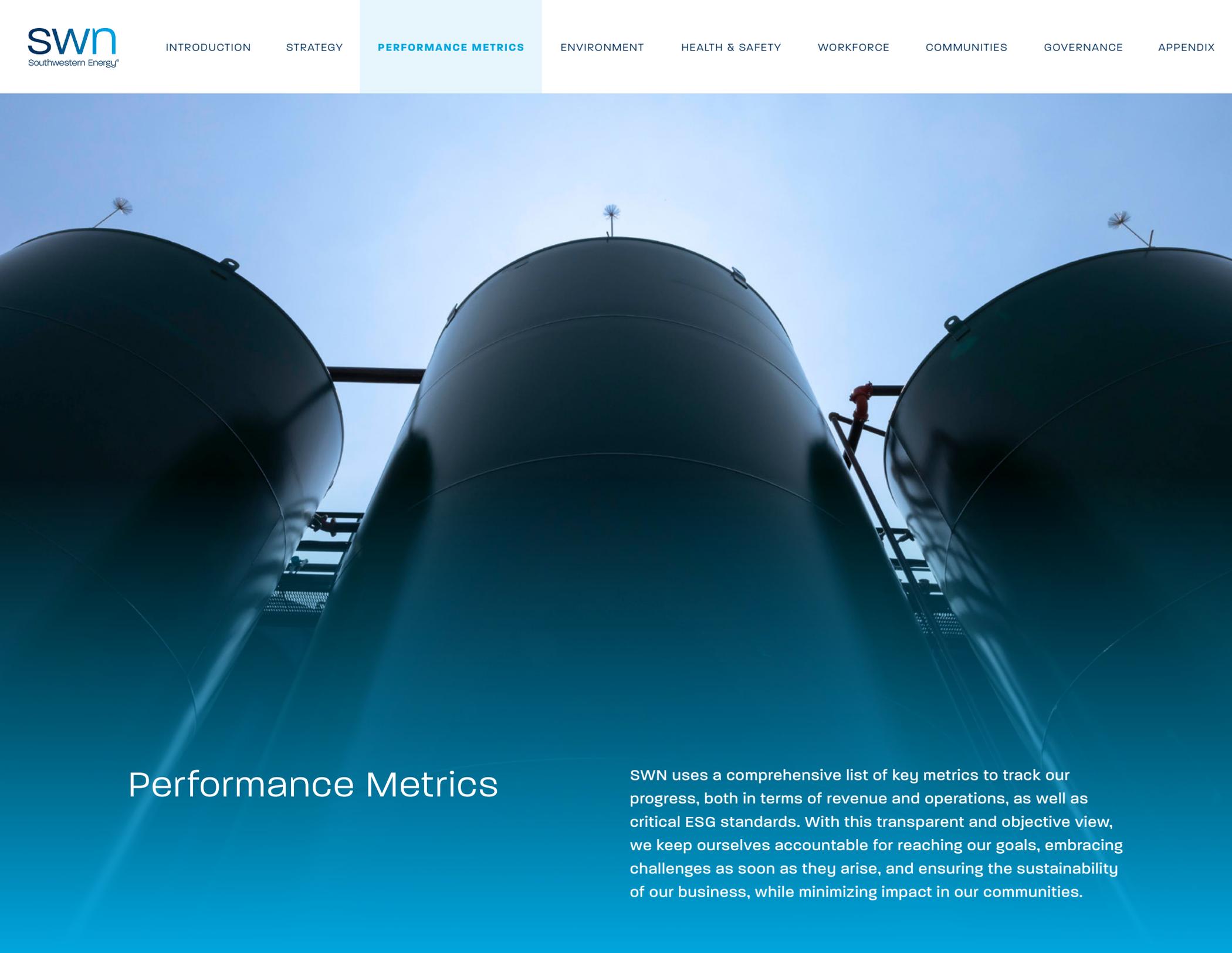
Performance Metrics

SWN uses a comprehensive list of key metrics to track our progress, both in terms of revenue and operations, as well as critical ESG standards. With this transparent and objective view, we keep ourselves accountable for reaching our goals, embracing challenges as soon as they arise, and ensuring the sustainability of our business, while minimizing impact in our communities.

Performance Metrics

KEY DATA SUMMARY [1,2,3]	2022	2021	2020
Operating Revenues (millions of U.S. dollars)	$ 15,002	$ 6,667	$ 2,308
Net Production (billion cubic feet equivalent) (Bcfe)	1,733	1,240	880
Number of Gross Producing Wells [4]	2,934	2,904	2,591
Estimated Proved Oil and Gas Reserves [4] (Bcfe)	21,625	21,148	11,990
Net Undeveloped Acres [4] (millions of acres)	0.50	0.49	0.52
Number of Employees [4]	1,118	938	900
Total Flowback and Produced Water That We Recycled [5] (percent)	23.2%[6]	45.4%	94.9%
Greenhouse Gas (GHG) Emissions Intensity [7] (kg of CO_2e/million BTUs of gas produced)	0.70	0.78	0.86
Methane Intensity (Leak/Loss Rate) [8] (percent; SWN production operations only)	0.044%	0.055%	0.075%[9]
Total Recordable Incident Rate for Employees (# Employee OSHA Recordable Cases x 200,000/Annual Employee Workhours)	0.42	0.11	0.22
Total Recordable Incident Rate for Contractors (# Contractor OSHA Recordable Cases x 200,000/Annual Contractor Workhours)	0.35	0.49	0.42
Total Recordable Incident Rate (# Contractor plus Employee OSHA Recordable Cases x 200,000/Annual Contractor Plus Employee Workhours)	0.37	0.39	0.36

WATER USE, RECYCLING AND SPILL METRICS [10]	2022	2021	2020
Freshwater Withdrawal by Source [11] (millions of barrels)			
Surface Water	88.39	47.01	40.50
Groundwater	0.16	0.05	0.26
Water Utilities	0.20	0.18	0.08
Total	88.75	47.24	40.90
Total Water Sourced (millions of barrels)	96.2	55.26	50.30
Total Volume That Is Recycled or Reused Downhole [12,13] (millions of barrels)	7.45	8.03	9.48
Total Water Sourced That Is Recycled Water [14] (percent)	7.8%	14.6%	18.9%
Flowback and Produced Water That We Recycled [15,16] (percent)	23.2% [17]	45.4%	94.9%
Cumulative Conservation and Operational Offsets [18] (millions of barrels)	88.84	47.25	57.80
Tier 1 and 2 Unplanned Discharges/Spills [19] (total volume in barrels)	271	134	36

GHG EMISSIONS METRICS [20]	2022	2021	2020
Scope 1 GHG Emissions CO_2e (thousand metric tons)	1,283	1,548	1,057
Carbon Dioxide CO_2e (thousand metric tons)	926	1,071	659
Methane CH_4 (thousand metric tons)	14	19.06	15.86
Nitrous Oxide N_2O (thousand metric tons)	0	0.004	0.003
GHG Emissions Intensity [21] (kg CO_2e/MMBtu gas produced)	0.70	0.78	0.86
Methane Intensity (Leak/Loss Rate) [22,23] (percent; SWN production operations only)	0.044%	0.055%	0.075% [24]
Total Methane Emitted [25] (thousand metric tons; SWN production operations only)	14.31	19.06	15.86
Scope 2 GHG Emissions (CO_2e thousand metric tons)	3.64	5.91	N/A
Carbon Dioxide CO_2e (thousand metric tons)	3.62	5.89	—
Methane CH_4 (thousand metric tons)	0.00026	0.00042	—
Nitrous Oxide N_2O (thousand metric tons)	0.000038	0.000059	—

GHG EMISSIONS BY SOURCE CATEGORIES (METRIC TONS CO_2e)	2022	2021	2020
Combustion Equipment	887,518	958,294	612,183
Natural Gas Pneumatic Devices	297,863	347,233 [26]	293,365
Dehydrators	32,085	44,033	63,065
Atmospheric Storage Tanks	13,160	86,657	28,345
Well Venting for Liquids Unloading	4,819	43,675	28,144
Equipment Leaks	12,778	32,175	15,910
Associated Natural Gas Venting and Flaring	0	5,122	7,747
Natural-Gas-Driven Pneumatic Pumps	32,996	26,574	6,459
Reciprocating Compressors	1,506	1,346	650
Flare Stacks	1,247	3,337	591
Blowdown Vent Stacks	0	0	28

SOCIAL PERFORMANCE METRICS	2022	2021	2020
Charitable Giving [27] (U.S. dollars)	$ 869,424	$ 734,980	$ 825,936
SWN Matching Gifts (U.S. dollars)	$ 177,564	$ 187,665	$301,228

GOVERNANCE METRICS	2022	2021	2020
Independent Board Members	8 of 9	8 of 9	8 of 9
Board Member Diversity	44%	44%	44%
Board Gender Diversity	2 of 9	2 of 9	2 of 9
Board Ethnic/Racial Diversity	2 of 9	2 of 9	2 of 9
Average Tenure of Board Members	7.30	6.30	5.33

SAFETY PERFORMANCE METRICS [28]	2022	2021	2020
Total Recordable Incident Rate (TRIR) for Employees (# Employee OSHA Recordable Cases x 200,000/Annual Employee Workhours)	0.42	0.11	0.22
TRIR for Contractors (# Contractor OSHA Recordable Cases x 200,000/Annual Contractor Workhours)	0.35	0.49	0.42
TRIR – ONE TEAM (# Contractor plus Employee OSHA Recordable Cases x 200,000/Annual Contractor plus Employee Workhours)	0.37	0.39	0.36
Days Away, Restricted or Transferred (DART) Incident Rate for Employees [29] (per 100 employees)	0.25	0.00	0.11
DART Incident Rate for Contractors (per 100 contractors)	0.19	0.31	0.23
DART Incident Rate – ONE Team (per 100 employees plus contractors)	0.21	0.23	0.20
Total Recordable Vehicle Incident Rate [30] (per 1 million miles driven by employees)	0.41	1.13	0.57

WORKFORCE PERFORMANCE METRICS [31]	2022	2021	2020
Employees Total	1,118	938	900
Women	232	216	207
Men	886	722	693
Minorities and Women as a Percentage of Workforce			
Minorities	15%	14%	12%
Women	21%	23%	23%
Minorities and Women as a Percentage of Management [32]			
Minorities	7%	8%	9%
Women	16%	16%	17%
Employees by Age			
Under 30	14%	11%	14%
30–50	67%	69%	67%
Over 50	20%	20%	19%
Employees With Military or Veteran Status	6%	7%	7%

One Commitment
Environment

SWN is one of the largest natural gas and natural gas liquids producers in the US and one of the lowest-emission producers globally with a single-minded focus on sustainable value creation. We believe natural gas is a long-term, responsible energy solution that addresses the intertwined challenges of climate change, energy security and growing energy demand.

2022 KEY METRICS

100%
of SWN producing wells are certified as responsibly sourced gas

17%
reduction in Scope 1 GHG emissions intensity in 2022 from a 2021 baseline

7th
year in a row achieving freshwater neutrality

Climate Change & Emissions

We believe that natural gas is fundamental to addressing the intertwined challenges of climate change and energy security.

SWN is well positioned to help secure both domestic and global energy needs and to accelerate the role of natural gas as a foundational energy source for a lower-carbon future, thanks to increasing access to global LNG markets and our long-term track record as both a low-cost and low-emissions energy provider. In fact, our approach to addressing the risks and opportunities of climate change is a central element of our overall business strategy: We aim to deliver affordable, reliable, responsibly produced natural gas to support the transition to a cleaner energy future, while expanding access to secure energy that underpins global economic development. This approach drives the sustainability and resilience of our business, as well as our ability to deliver long-term value to all of our stakeholders.

On track to achieve 50% reduction in Scope 1 GHG emissions by 2035.

A Responsible, Low-Emissions Energy Provider

Core to our climate and business strategies is driving responsible energy development. We have been focused on being a responsible, low-emissions energy provider for decades, taking a leadership role in reducing methane emissions in our own operations and our broader industry. We are also working to make progress toward our goal, announced last year, to reduce absolute and intensity-based Scope 1 GHG emissions 50% by 2035, as measured from the 2021 baseline.

We are prioritizing reductions in the environmental footprint of our operations. We recognize, however, the practical challenges of eliminating our environmental impact through operational improvements alone. We believe offsets should not replace meaningful emissions-reduction efforts and, if used, should be derived from impactful and verifiable projects.

100%
of SWN's producing wells are certified through TrustWell's® responsible gas program

99%
of certified wells in Appalachia Basin are certified at the highest level, Platinum

100% of SWN Wells Are Certified as Responsibly Sourced Gas

In 2021, we were the first in our industry to pledge that 100% of our wells would be certified to Project Canary's TrustWell® Standard for responsibly sourced gas, including continuous emissions monitoring. As of year-end 2022, all of our producing wells have been certified, and 99% of the wells in the Appalachia Basin are certified to the highest possible Platinum Standard through TrustWell®.

The TrustWell® Standard provides independent verification that industry-leading standards and practices are utilized in all phases of operations. This includes the policies, plans and execution of well design, drilling, completions, production, permits and compliance. Each certified facility is benchmarked against more than 4.5 million facilities for managing local risk factors, and impacts on water, air, land and community. Facilities are reviewed across a wide range of management and performance criteria, including methane emissions measurement, management and reduction; freshwater conservation and produced-water recycling; waste and chemical management; well integrity; spill prevention; emergency response; worker safety; and community engagement. Based on the standards above, the Platinum-certified facilities are operated more responsibly than 90% of other operators.

Certification provides our stakeholders with objective and independent data affirming SWN's sustainable approach to responsible natural gas production. Together with our continuous emissions monitoring systems (see **page 22**), well certifications provide credible and verifiable evidence of our commitment to protecting the environment, our workforce and our communities.

Emissions Targets & Performance

SWN is dedicated to continuing to reduce our GHG emissions and to transparently reporting our progress. We reduced our absolute and intensity-based Scope 1 GHG emissions by 17% in 2022, keeping us on track to achieve our goal of a 50% reduction by 2035, measured from the 2021 baseline. To further advance our performance, we committed to and surpassed a goal in 2022 to reduce methane intensity by 10%. We have set a goal to reduce methane intensity by another 10% in 2023. See the Performance Metrics (page 11) for full emissions performance data.

Our low 0.044% methane emissions intensity rate represents a 20% year-over-year reduction for the company compared to 2021. We also have significantly lower GHG emissions intensity than most of our industry peers, achieving a 4.11 mt CO_2e/MBOE in 2022, a 10% reduction compared to 2021.

We are also committed to maintaining zero routine flaring of associated natural gas, or gas that is produced in association with oil production, which we achieved in both 2021 and 2022.

Our absolute emissions-reduction goal is based on our current strategy of investing enough capital to maintain production at nearly the same level as the prior year. In the event we were to grow organically or through acquisitions, we expect that our absolute goal would change, although we would still seek to achieve our intensity target.

38%

reduction in Scope 2 GHG Emissions

3.64 thousand metric tons in 2022 from 5.91 thousand metric tons in 2021

SWN's goal to reduce both absolute and intensity-based GHG emissions by 50% by 2035 puts us on a path to achieve net-zero emissions by 2050, consistent with doing our part to limit the average increase in global temperature to 1.5 degrees Celsius.

Scope 1 GHG Emissions and Intensity
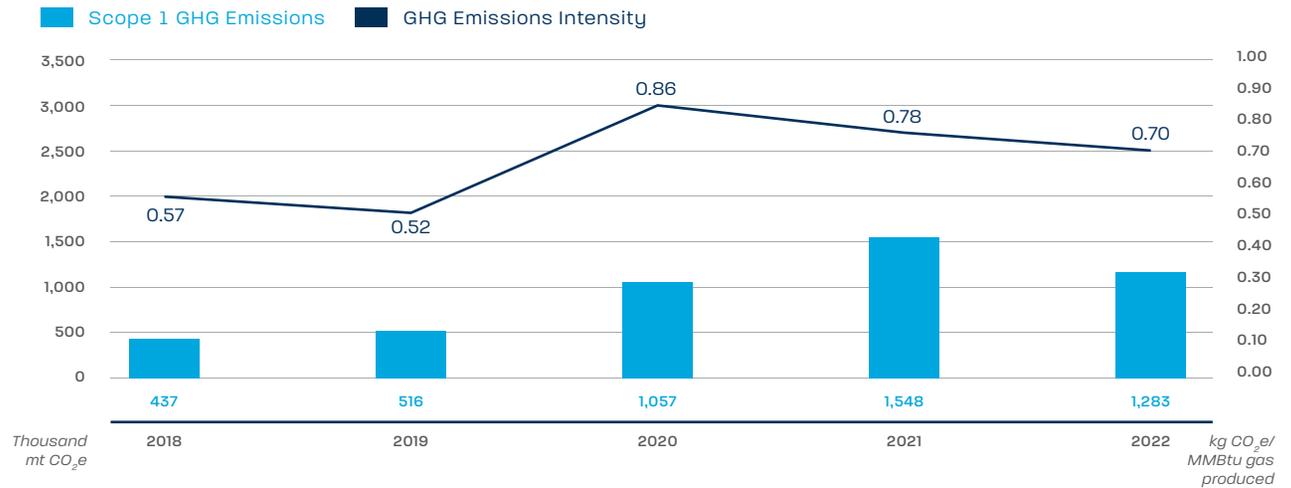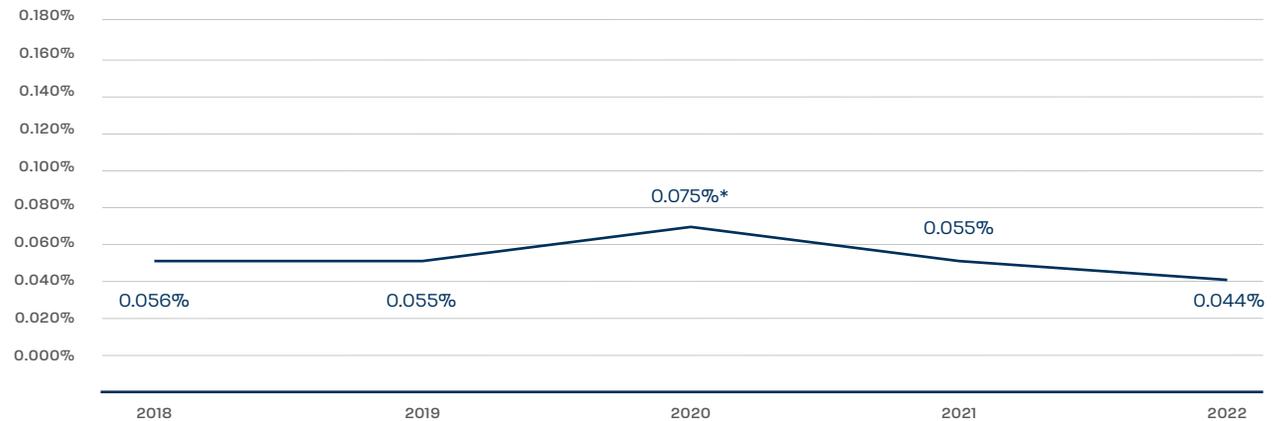
Legend: ■ Scope 1 GHG Emissions ■ GHG Emissions Intensity

	2018	2019	2020	2021	2022
Scope 1 GHG Emissions	437	516	1,057	1,548	1,283
GHG Emissions Intensity	0.57	0.52	0.86	0.78	0.70

Thousand mt CO_2e — *kg CO_2e/ MMBtu gas produced*

Methane Emissions Intensity

	2018	2019	2020	2021	2022
Methane Emissions Intensity	0.056%	0.055%	0.075%*	0.055%	0.044%

*SWN's methane intensity increased in 2020, primarily due to the acquisition of assets with higher methane leak/loss rates than SWN's legacy assets. We were able to reduce methane emissions to our historical low levels by quickly integrating the acquired assets into our rigorous methane emissions-reduction programs.

We anticipate that approximately 70% of the goal will be achieved by operational emissions abatements, and we expect the comparatively small balance of the goal to be achieved by using emerging technologies and, to the extent necessary, certified carbon offsets.

The key operational initiatives we will make to abate Scope 1 emissions and help achieve our GHG emissions goal include the following:

- Dynamically managing pad compression to reduce combustion
- Retrofitting existing pneumatic devices by converting from gas to air or to nitrogen
- Installing air-driven pneumatic devices on new wells
- Routing pneumatic gas devices from pad facility equipment to a combustor
- Optimizing engine idling in completion operations
- Using engine power management systems on drilling rigs as they become more cost-effective

Independently and in cooperation with our midstream and service providers, SWN is evaluating innovative technologies to assess their feasibility and relevance for helping us to reduce our operational emissions. This includes a carbon capture and storage (CCS) opportunity in a future Haynesville pipeline that could generate carbon offsets to be applied against our Scope 1 emissions.

SWN is also a member of Appalachian Energy Future, an industry-led alliance to drive the development of a regional hub for hydrogen and carbon capture, use and storage in Ohio, Pennsylvania and West Virginia. Appalachian Energy Future aims to educate local and regional leaders and groups about the benefits of the project and address important policy, regulatory and related topics.

Investing in Continuous Improvement

Our commitment to ESG performance is evident in our growing investment in programs related to our ESG priorities, including approximately $9.5 million in 2022 and up to an estimated $14.6 million in 2023, which includes:

- $6M spent in 2022 toward our methane-emissions reduction initiatives

- $7M estimated spend for 2023 to continue our methane-emissions reduction initiatives

- $1M spend for 2022 and $1.6M projected in 2023 on freshwater-neutral projects, both new and old

- $2.5M spend for 2022 and $6M projected in 2023 for Project Canary

GHG Emissions Goals

2022 GOALS		STATUS
Maintain or surpass ONE Future production sector target of **0.28%**	✓	Surpassed: **0.044%** methane intensity
Reduce methane emissions intensity vs. 2021 by **10%**	✓	Achieved **20%** reduction in methane intensity company-wide
Eliminate routine flaring of associated natural gas	✓	Achieved

LONG-TERM GOAL		STATUS
Reduce absolute and intensity-based Scope 1 GHG emissions by **50%**	On track by 2035	**17%** reduction achieved in 2022

Emissions-Reduction Efforts

SWN's ESG Committee, a cross-functional team of SWN senior executives and managers, is dedicated to enhancing the Company's ESG performance, including identifying and implementing high-impact emissions-reduction efforts. We are continuing to evaluate new technologies to broaden the portfolio of solutions across our operations. In 2022, this team oversaw the implementation of strategies to address vented emissions by capturing and routing natural gas for beneficial reuse, transitioning pneumatic pumps to compressed air, and decreasing combustion emissions by limiting idle time on drilling and completions. In Haynesville, SWN piloted new technology in 2022, using liquid nitrogen to displace natural gas pneumatics, which successfully reduced methane emissions. In 2023, we are expanding the use of the technology, using liquid nitrogen in our Appalachian basin operations. We are also expanding the focus of our emissions reduction efforts to include sources outside of EPA reporting requirements. (For more details, see Enhancing Emissions Measurement on .)

REDUCING METHANE EMISSIONS

Minimizing methane emissions is a key focus for SWN. This effort isn't just good for the environment; it is good business. Because methane is the chief component of natural gas, the more methane we can capture and direct to sales, the more product we are able to sell. Accountability for methane reductions goes all the way to the top of SWN's organization. The operating executives' evaluation scorecard includes methane performance metrics, and our Board of Directors, through the Health, Safety, Environment & Corporate Responsibility (HSE&CR) Committee, regularly reviews methane emissions performance.

We are a founding member of **ONE Future**, a coalition of more than 55 companies working to reduce methane emissions to less than 1% across the natural gas value chain. Through peer-reviewed scientific analysis, ONE Future determined that — to ensure the climate benefits of natural gas over other fuels — the industry's methane intensity must not exceed 1% across the entire natural gas value chain.[33]

SWN achieved our production sector ONE Future 2025 target of 0.28% nine years ago, and has surpassed this target annually since. We have been able to continually exceed this aggressive target, due to our early leadership in implementing methane emissions-reduction technologies. In 2022, we achieved a methane intensity of 0.044%.[34]

Beyond our own emissions-reduction strategies, we seek to drive improvement across the industry. In addition to our work with ONE Future, we are members of **The Environmental Partnership**, a group of companies that have committed to implementing a range of emissions-reduction best practices. Further, we seek to improve and share our knowledge in this area by participating in scientific studies with regulatory agencies, academia and nongovernmental organizations (NGOs).

SWN has proactively implemented methane mitigation technologies and practices — including reduced emission completions, no/low-emission pneumatic device replacement or bleed control, liquids unloading mitigation, venting-reduction practices, low-emissions gas dehydration processes, and leak detection and repair (LDAR) programs — well in advance of U.S. regulatory requirements. Current SWN facilities do not utilize high-bleed controllers, nor do we use them in new facility design or installation. In 2022, significant sources of our emissions reductions resulted from increasing the use of air-actuated pneumatics and a decrease in manual liquid unloading. We also piloted nitrogen-actuated pneumatics.

Progress on Environmental Partnership Commitments

100%
of manual liquids unloading processes are monitored to reduce emissions

100%
of pneumatic controllers are no-or low-emission bleed

0%
routine flaring of associated natural gas, which eliminates CO_2 and combustion criteria emissions

Identifying and repairing methane leaks quickly is an important element in reducing methane emissions. Our voluntary LDAR program is overseen at the highest levels of our company. SWN's Air Program Manager oversees day-to-day implementation across the company, providing a single point of accountability and maintaining consistent implementation in operating regions.

Our LDAR program goes beyond current regulatory requirements by including certain nonfugitive equipment sources, such as pneumatic controllers, and by addressing all potential sources, not just new ones. This program exceeds the standards of many industry practices by covering all operational facilities, equipment and components. SWN LDAR personnel and contractors participate in both equipment startup and maintenance activities to address potential leaks across the facility's life cycle.

Our LDAR program includes:

- Ongoing remote monitoring of pressure, temperature and flow rate, to identify any changes that may indicate methane leaks.

- Frequent audio, visual and olfactory inspections conducted by field personnel to identify leaks.

- Project Canary continuous pad monitoring, which assists in identifying leaks in real time, resulting in a reduction of response time to potential leaks.

- Leak detection surveys using optical gas imaging cameras completed at least annually, with many facilities having surveys conducted quarterly. New wells and new compressor stations are assessed within 60 to 180 days of commencing operation.

- Immediate repairs of leaking components if practical and safe. Once repairs are completed, the component or equipment is resurveyed, to confirm the leak has been fixed.

- Tracking and reporting data on leaks to help ensure repairs are made effectively and to drive improvements in maintenance and repair practices.

100%
of our operational production facilities surveyed for potential methane leaks in 2022

100%
of our compressor stations surveyed for potential methane leaks in 2022

99.8%
of identified leaks were repaired[35]

Enhancing Emissions Measurement to Advance Emissions Reductions

Continuous methane monitoring is helping us to better measure and understand methane emissions and sources, to more effectively target our methane emissions-reduction efforts across our operations. We have installed Canary X solar-powered continuous methane monitoring devices on nearly 100 pad locations, and we intend to continue expanding them to all SWN pad locations. We are aiming to have all SWN's well pads equipped with continuous monitors by year-end 2024. These monitors are an element of our responsibly sourced gas certification.

Information from these monitors is collected in a dashboard, so our operations team can quickly respond to issues. In addition, we have established a 24/7 control room in each of our three main operating areas that enables nearly immediate response to emissions abnormalities and detection alarms, to alert personnel about methane emissions concentrations, which supports our leak detection and repair efforts.

SUCCESSFUL ELIMINATION OF ASSOCIATED ROUTINE FLARING

SWN has historically had low flaring rates. Because natural gas is our main product, we do not begin producing until we have natural gas takeaway capacity, the lack of which is a primary driver for flaring in the oil and gas industry. In 2021, we eliminated all routine flaring of associated natural gas, an achievement we maintained in 2022, and are committed to continuing. We are working to reduce non-routine flaring to the maximum extent feasible and to limit flare use to standby upsets in the early stages of the drilling process, emergency conditions or as otherwise required by federal or state regulations.

REDUCING COMBUSTION & OPERATIONAL EMISSIONS

Building on our leadership in methane emissions reductions, we are increasingly focused on reducing emissions from combustion and other elements of our operations. To do so, we are investigating and implementing new technologies and process changes that allow us to operate more efficiently, producing the same or more product while using less energy. Currently, we are focusing on both optimizing engine load and reducing engine idling to achieve better fuel efficiency. Also in 2022, we trialed several devices to capture gas that would otherwise be vented and to route those volumes for beneficial reuse. This has both eliminated a source of methane emissions and offset the volume of gas we would otherwise have used to fuel combustion equipment.

Technologies/Practices SWN Uses to Minimize Emissions, by Operational Phase
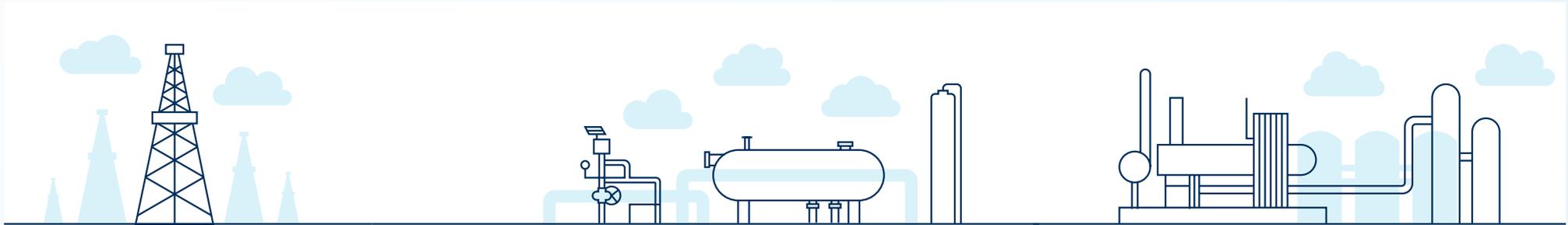
Completions and Workovers

- Engine-idle reduction
- Engine load optimization
- Green (i.e., low-emission) completions and recompletions
- Dual fuel on 100% of drilling rigs

Production Activities

- Tankless facilities
- Instrument air-driven and/or nitrogen-driven pneumatic controllers/devices and pumps
- Vapor capture and recovery
- Continuous monitoring to identify leaks and alert the operators to possible leaks or other equipment malfunction at a facility
- Artificial lift systems
- Ventless restoration
- Monitored manual liquids unloading
- Solar-powered instruments
- Flash tank vessels on glycol dehydration units
- 100% natural-gas-fired compressor drivers
- Equipment consolidation

Gas Gathering/Treatment

- Leak detection, including use of infrared cameras, ultrasonic and laser technologies to identify leaks
- Flash tank vessels on glycol dehydration units
- Vapor recovery and/or control on dehydration units

2022 Scenario Analysis

We undertake climate-specific scenario analyses as part of our efforts to identify, assess, prioritize and monitor potential climate-related risks and opportunities. Scenario analyses evaluate the strength of an enterprise when stress tested. In the case of climate change, we use scenarios to explore and develop an understanding of how the energy transition may affect our business over time and to assess the resilience of our strategy under a range of low-carbon future scenarios. This includes undertaking extensive analyses of our proved reserves' development potential, under a range of possible future regulatory and emissions scenarios. We have committed to publish an updated climate change scenario analysis every two years. The following analysis was developed using 2020 data for our 2021-2022 Corporate Responsibility Report and it will be updated again next year for the publication of our 2023-2024 Corporate Responsibility Report.

2022 SCENARIOS & ANALYSIS PROCESS

A critical aspect of scenario analysis is the selection of a set of scenarios that cover a reasonable variety of future outcomes. Scenarios are not intended to represent a full description of the future, but rather are hypothetical constructs highlighting central elements of a possible future to draw attention to the key factors that will drive future developments.[36]

Following the guidance of the Task Force on Climate-related Financial Disclosures (TCFD), our updated scenario analysis is based on two widely used and well-respected scenarios for future energy demand from the International Energy Agency's (IEA) *2021 World Energy Outlook*, both of which are aligned with the Paris Agreement goals:

- The Sustainable Development Scenario (SDS), which represents an energy demand pathway aligned with the Paris Agreement goal of maintaining global temperature increases well below 2 degrees Celsius.
- The Net Zero Emissions (NZE) scenario, which represents an energy demand pathway aligned with maintaining a global temperature rise of 1.5 degrees Celsius.

Both scenarios assume a reduction in fossil fuel consumption and an increase in renewables and other alternative energy sources to achieve the Paris Agreement's climate goals. Based on these scenarios, the IEA developed an emissions-based "budget" for the amount of natural gas that could be produced from now until 2050 to remain in alignment with each scenario's Paris Agreement goal. We assessed the resilience of SWN's portfolio within these emissions constraints, based on the relative cost competitiveness of SWN's production, assuming that the lowest-cost resources will be produced first. Reserves with the lowest-cost of production are the most likely to continue producing under potential future regulations or practices focused on mitigating climate change that could reduce demand and, therefore, prices.

We also assessed SWN's Scope 1 CO_2 intensity compared to the global average for oil and natural gas production among oil and gas producers and averages for major categories of producers in the industry, including independent and national oil and gas companies, oil and gas majors, and producers by region and field type. This analysis provides a different view of the resilience of our portfolio, assuming a more carbon-constrained future in which producers with lower emissions could have a competitive advantage.
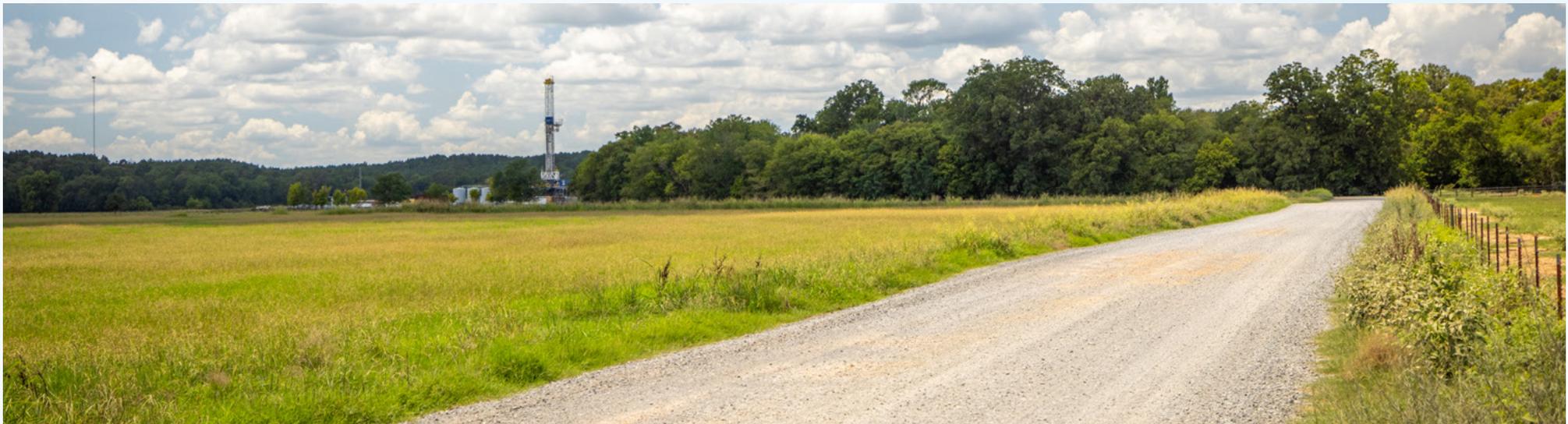
SCENARIO ANALYSIS RESULTS

Natural gas will continue to play an important role in the global energy mix, based on the IEA's SDS and NZE scenarios. However, demand for natural gas does decline under both scenarios. Under the SDS, natural gas demand is predicted to decline 27% by 2050 compared to a 2018 baseline; under the NZE, natural gas demand is projected to decline 58% in that same period. This expected demand reduction will provide a competitive advantage to producers like SWN, with lower-cost and lower-emissions operations.

SWN's low-cost, low-emissions resources are well positioned under both scenarios. Nearly 100% of our assets remain producible through 2050, even under a net-zero scenario. Our commitment to reducing GHG emissions further enhances our ability to comply with new policies and practices. Further, our capital discipline constrains us from investing in assets that are unlikely to recover their capital costs.

SWN's Proved Reserves Are Likely to Be Produced Under Both SDS & NZE

With our substantially lower-cost and lower-emissions reserves and operations, SWN is likely to be competitive and resilient even under a net-zero-aligned future energy demand scenario. As indicated in the following chart, the weighted average cost of SWN's 2021 reserves is well within the cost and emissions constraints of both the SDS and NZE scenarios, and they are thus likely to be produced.

Under both the SDS and NZE, 100% of SWN's reserves that are expected to be monetized by 2030 are considered "in budget" given the emissions constraints of these scenarios and, therefore, are likely to be produced.

By 2050, only 3% of SWN's resources are considered "out of budget" under these scenarios.

Though the NZE is a more stringent scenario, pure-play natural gas producers like SWN benefit under this scenario, due to a predicted decrease in the production of "associated gas," or gas that is produced in association with oil production, which leaves more of the natural gas production budget to pure-play producers.

Benchmark Share of Potential Production In/Out of Budget (2022-2050)*

NET-ZERO EMISSIONS BY 2050 SCENARIO

Legend:
- In Budget
- Out of Budget

	Others	International Oil Company (IOC) group	Peer group excluding SWN	National Oil Company (NOC) group	SWN
In Budget	51%	51%	72%	74%	97%
Out of Budget	49%	49%	28%	26%	3%

SUSTAINABLE DEVELOPMENT SCENARIO

Legend:
- In Budget
- Out of Budget

	Others	International Oil Company (IOC) group	Peer group excluding SWN	National Oil Company (NOC) group	SWN
In Budget	68%	72%	82%	87%	97%
Out of Budget	32%	28%	18%	13%	3%
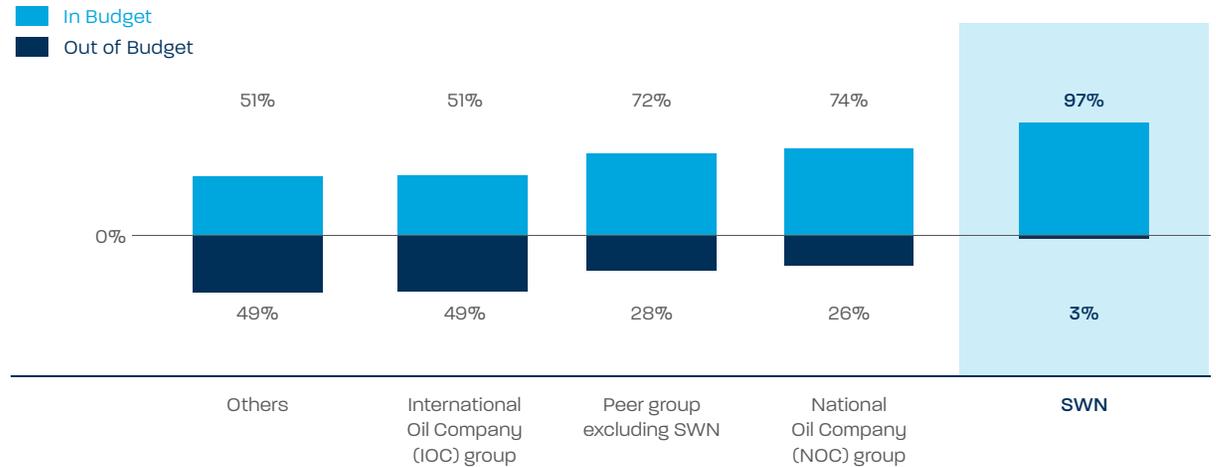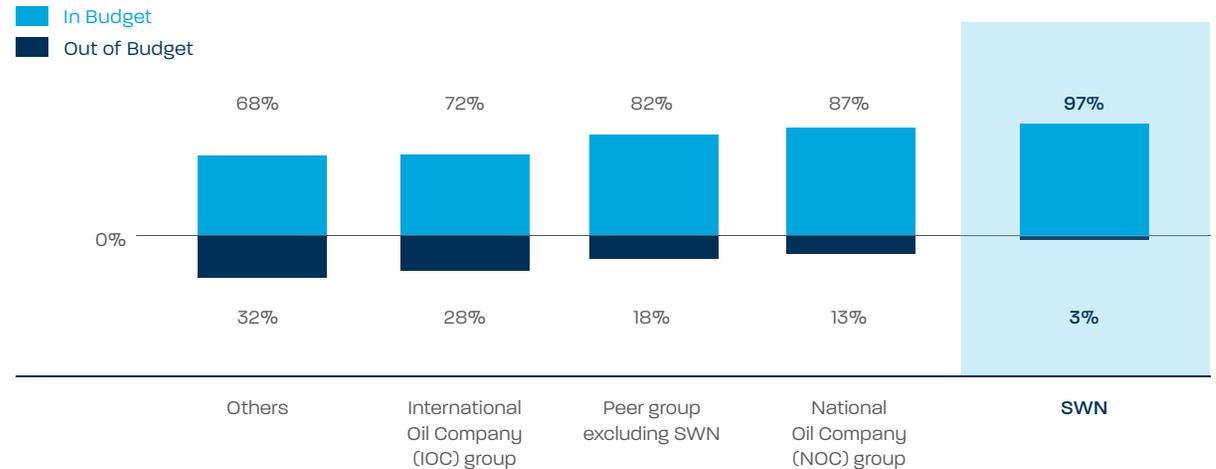
*Includes all potential hydrocarbon production during the period; only includes upstream economics.
Source: Rystad Energy research and analysis, Rystad Energy UCube

Overall, SWN's resilience under the SDS and NZE is very strong relative to other primarily gas producers, which are projected to have on average 28% of resources out of budget by 2050 under the NZE and, on average, 18% of resources out of budget, or unproducible, by 2050 under the SDS.

This analysis illustrates the economic viability of SWN's assets under scenarios that meet the goals of the Paris Agreement.

Our ability to develop substantially all of our current proved reserves, even with stricter climate-related regulation and practices, is also supported by the fact that our currently producing reserves, or reserves with wells in place and connected to pipelines — which comprise more than 54%[37] of the reserves shown in SWN's year-end 2021 SEC filings — are likely to continue producing, as the cost of producing from existing wells is marginal. In addition, SWN's core nonproducing reserves are in the Appalachian and Haynesville basins, which have highly competitive break-even production costs. Even if prices fall, due to higher production or lower demand, SWN's core assets are among the most likely to continue producing and to be developed.

SWN's Assets Are Emissions-Competitive

Another factor supporting the resilience of our resource portfolio is its relative emissions competitiveness. With natural gas composing nearly 90% of our current production, our assets have lower emissions than other fossil fuels. In addition, even within the natural gas industry, our assets have lower relative production emissions intensity, making them more competitive and resilient than other natural gas resources in a carbon-constrained future. Our focus on natural gas instead of oil, shale-based resources and the Appalachian and Haynesville basins in North America results in lower product CO_2 intensity than producers with other focus areas.

SWN Has a Competitive CO_2 Intensity Profile

HYDROCARBON FIELDS

Field Type
Gas/gas-condensate fields outperform oil fields in terms of CO_2 intensity, releasing ~40% less on average.

- 13 Gas/Gas-Condensate
- 22 Oil Fields

0   5   10   15   20   25   55
CO_2 Kg/MCF
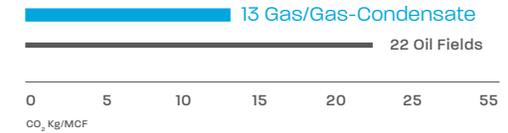
GAS/CONDENSATE FIELDS

Regions
Southwestern Energy's North American territory is ranked fourth globally in terms of regional CO_2 intensity.

- 11 Australia
- 12 Middle East
- 12 Russia
- 13 North America
- 13 Europe
- 16 Asia
- 16 Africa
- 22 South America

0   5   10   15   20   25   55
CO_2 Kg/BOE

Basin
The Appalachian and Haynesville basins are ranked as top performers among North American basins.

- 6 Appalachian
- 9 Haynesville
- 14 Permian
- 17 Eagle Ford
- 20 Anadarko
- 22 Avg. Other U.S. Basin

0   5   10   15   20   25   55
CO_2 Kg/BOE

Supply Segment
Among supply segments in North America, shale/tight oil comes out favorably, ranked as second best.

- 8 Offshore Deepwater
- 9 Shale/Tight Oil
- 23 Other Onshore
- 53 Offshore Shelf

0   5   10   15   20   25   55
CO_2 Kg/BOE
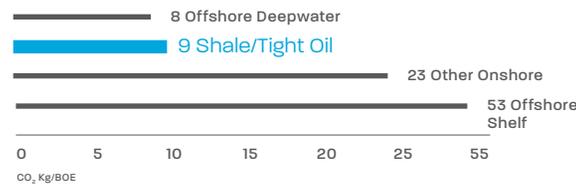
Company Segment
The core benchmarking group is ranked first and releases on average 50% less CO_2 per BOE compared to the second-best group consisting of other North American peers.

- 6 Benchmarking Group
- 12 Other North American Peers
- 13 IOCS
- 13 NOCS
- 15 Majors

0   5   10   15   20   25   55
CO_2 Kg/BOE
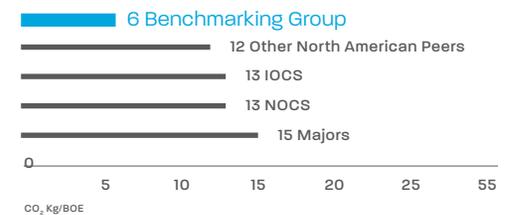
SWN has also been an early adopter and innovator in reducing emissions from our operations (see **page 23**), further improving the emissions competitiveness of our resources. SWN's 2020 CO_2 intensity was well below the global average of 18 kg CO_2/BOE (as reflected in the chart to the right). This low-emissions intensity means we are nearly in alignment with the upstream production-related CO_2 intensity that the SDS requires companies in our industry to achieve by 2050 in order to "do their share" to achieve the Paris Agreement climate goal of maintaining temperature increases well below 2 degrees Celsius. In addition, our goal to reduce absolute and intensity-based Scope 1 GHG emissions by 50% by 2035 puts us on a pathway to meet the expectations of the Paris Agreement, even under a net-zero scenario.

SWN Is Not Likely to Spend Capital on Assets That Will Be 'Stranded'

When making an investment in new wells or reserves, we consider whether we will be able to recover the capital we deploy in light of a host of factors, including new regulations and policies such as those designed to limit climate change. Capital conceivably could become stranded if policies shift after a company has made large capital investments that must be recovered over decades – for example, transportation and processing infrastructure or massive-scale projects requiring long lead times, such as large non-U.S. or offshore projects.

In accordance with our business strategy, we invest within the cash flow that is generated by our underlying assets. Should policies and practices aimed at mitigating climate change alter demand for our commodities, costs of production, or both, our planning practices take those modifications into account. Furthermore, our recent acquisitions and expanded focus on the Appalachian and Haynesville basins further strengthen our portfolio of low-cost and low-emissions assets, making us more competitive and resilient under future scenarios with lower natural gas demand.

SWN's 2020 CO_2 Intensity vs. SDS and NZE Emissions Glide Paths
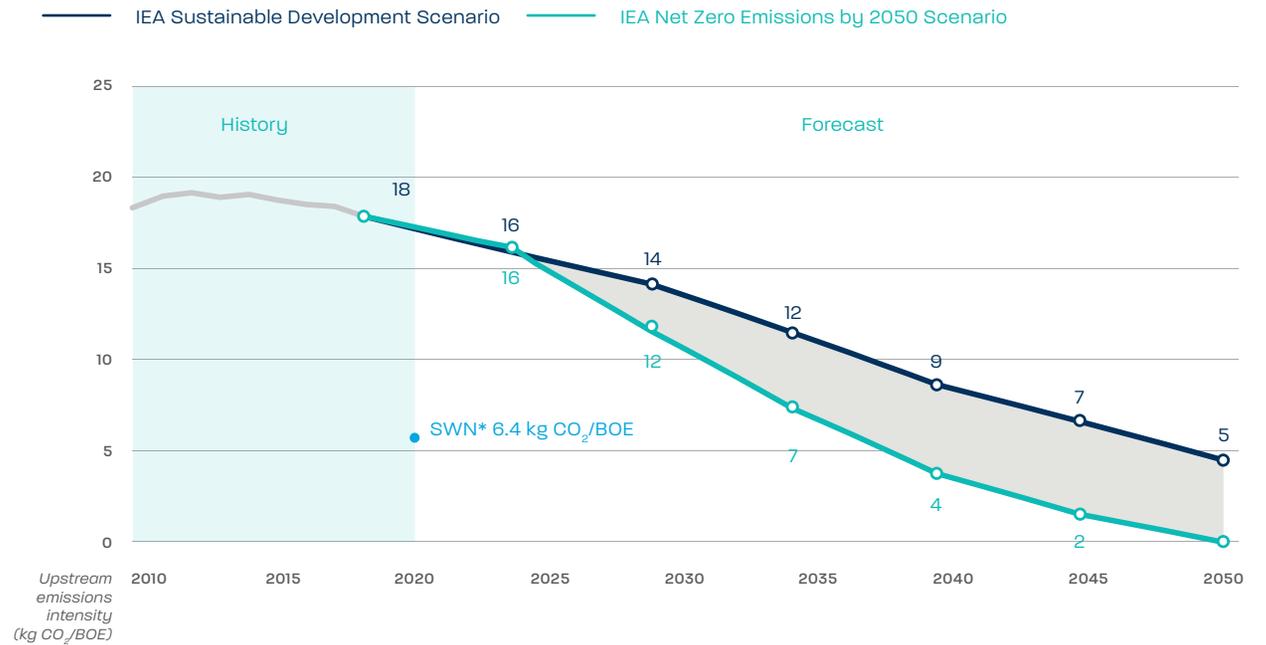
The chart above reflects SWN's 2020 CO_2 intensity and includes an allocation of midstream emissions for gathering and boosting in order to compare upstream oil and gas industry intensities.

Source: Rystad Energy UCube; Rystad Energy research and analysis; IEA World Energy Outlook (WEO)

Climate-Related Risks & Opportunities

Through our overall enterprise risk management (ERM) process and climate-specific risk assessments and scenario analysis, we have identified a range of climate-related risks and opportunities that could impact our business. We define climate-related risks following the TCFD framework of transitional and physical risks.

Accordingly, we define transitional risks as those associated with regulatory, legal, technological, market or reputational changes that may occur as part of the transition to a lower-carbon economy. We define physical risks as impacts associated with physical changes from climate change, such as changes in weather patterns and severe weather. We evaluate, identify and categorize risks based on a likely time frame, defining near-term risks as within 6 months, medium-term risks as 6 months to 2 years and longer-term risks as 3 to 5 years.

We believe that our climate and business strategies — including our focus on natural gas, our long-standing track record of responsible, low-emissions operations and our growing access to global LNG markets — put us in a strong position to respond to both the risks and opportunities of climate change and the energy transition, while maximizing the resilience of our business.

Potential Climate-Related Risks and Mitigation Approaches

RISK CATEGORY	RISK TYPE	RISK	FINANCIAL IMPACT	MITIGATION
Transitional	Regulatory	• Increased emissions regulations • Mandated cost of carbon • Enhanced emissions reporting obligations	• Increased costs • Reduced competitiveness of SWN's products • Increased cost of capital	• Proactive emissions-reduction activities to lower emissions of SWN products • Enhanced emissions measurement technology, including continuous methane monitoring
	Technological	• Customer substitution of existing products and services with lower-emissions options • Costs to transition to lower emissions technology	• Reduced demand for SWN's product • Reduced revenue • Increased costs	• Proactive investment in emissions-reduction activities • Focus on natural gas as lower-carbon fuel
	Market	• Changing customer behavior • Increased cost of raw materials (energy, water)	• Reduced demand for SWN's products • Increased costs • Repricing of estimated reserves • Increased cost of capital	• Proactive emissions-reduction activities to lower emissions of SWN products • Freshwater-reduction efforts • Focus on natural gas as lower-carbon fuel
	Reputation	• Shifts in consumer preferences • Stigmatization of sector • Increased stakeholder concern	• Reduced access to talent and capital • Increased cost of capital • Reduced demand for SWN's product	• Proactive emissions-reduction activities to lower emissions of SWN products • Transparent communication on strategy and performance
Physical	Acute & Chronic	• Increased severity of extreme weather events • Changes in weather patterns • Access to water	• Increased operating costs • Reduced revenue • Increased cost of capital • Increased insurance costs	• Emergency preparedness planning in facility design and operational plans • Freshwater-reduction efforts

Climate Governance

BOARD OVERSIGHT OF CLIMATE-RELATED TOPICS

The Board of Directors takes a comprehensive approach to overseeing climate-related risks and opportunities, and how the company responds. The Board receives regular updates from management and outside experts on the global and domestic energy outlook. In 2022, the Board also devoted time specifically to the energy transition and understanding energy supply and demand under various climate scenarios through 2050, provided by a third-party energy transition expert.

The Health, Safety, Environmental & Corporate Responsibility (HSE&CR) Committee of the Board of Directors is responsible for overseeing climate-related matters. This committee monitors efforts to reduce emissions, as well as progress against emissions reduction goals. The HSE&CR Committee also monitors trends in current and emerging political and public policy issues — including those related to climate change and emissions — that could affect business activities, performance and reputation with key stakeholders. This includes reviewing the impact of potential climate and emissions policies and regulations on our business, and reviewing guidelines and policies for responding to key public policy issues related to the environment, sustainable development and corporate responsibility.

Our other Board committees are also engaged in overseeing climate-related risks and opportunities and the company's response. For example, the Audit Committee oversees the company's enterprise risk management (ERM) process, which includes consideration of climate-related risks. (See Corporate Governance on **page 69** for more information on our Board of Directors.) The Compensation Committee determines executive compensation metrics linked to environmental, social and governance (ESG) issues, which includes a metric related to reducing methane intensity (see **page 71**).

MANAGEMENT OVERSIGHT OF CLIMATE-RELATED TOPICS

SWN's ESG Committee oversees our approach to climate-related topics. This committee leads the development of our climate and emissions-reduction strategy — including the development of climate and emissions goals, targets and metrics. The ESG Committee coordinates climate-related activities across SWN's functions and operating areas, including our efforts to identify and manage climate-related risks and opportunities and the scenario analysis process, and oversees our efforts to integrate management of climate-related risk and opportunities into our business strategy and decision-making. The ESG Committee engages third-party experts on climate and climate-related risks to inform its decision-making processes.

The ESG Committee reports to the full Executive Leadership Team (ELT) regularly on climate-related risks and opportunities, strategy and performance, and coordinates with our ERM function. (See Corporate Responsibility Oversight & Enterprise Risk Management on **page 74** for more on this committee.) Our Chief Financial Officer (CFO) oversees our ERM program, which incorporates climate-related risks. Our current head of HSE, who reports to our Chief Operating Officer (COO), directly oversees emissions-reduction activities.

To help drive accountability for reducing our emissions, our executives' and all employees' annual incentive compensation metrics include an emissions-reduction goal. For 2022, this included a goal to reduce methane emissions intensity by another 10%.

Water

Water is an important input in our operations, and we know it is also vital to the communities and ecosystems where we operate. We seek to minimize our use of fresh water wherever possible, but we also focus on supporting water replenishment through our commitment to being Freshwater Neutral, a goal we have achieved every year since 2016. This means that for every gallon of fresh water we use, we replenish a gallon through aquatic environmental conservation projects or treatment technologies that return beneficial fresh water to the environment. We believe that striving for Freshwater Neutral operations is not only the right thing to do for the environment and our communities, but also for our ongoing business success and resilience. It supports the efficiency of our operations, strengthens our social license to operate and helps us address potential climate-related and other water-scarcity-related risks.

Water Use

The hydraulic fracturing process, which requires water as the base for fracturing fluids, constitutes our primary use of water. We also use smaller amounts of fresh water in activities such as well cementing, water-based drilling, pressure testing, cooling of compressor stations and conducting other minor operational functions. Water needs vary basin to basin, and even pad to pad, due to differences in reservoir geology, well depth, lateral length and other operational factors. We employ advanced analytics to optimize water usage and recycle water whenever possible. We do not operate in any areas of baseline water stress, based on the World Resources Institute's Aqueduct Water Risk Atlas.

Average Water Demand per Well in 2022 by Barrel (bbl)

Appalachia = 663,831 (bbl)   Haynesville = 754,959 (bbl)
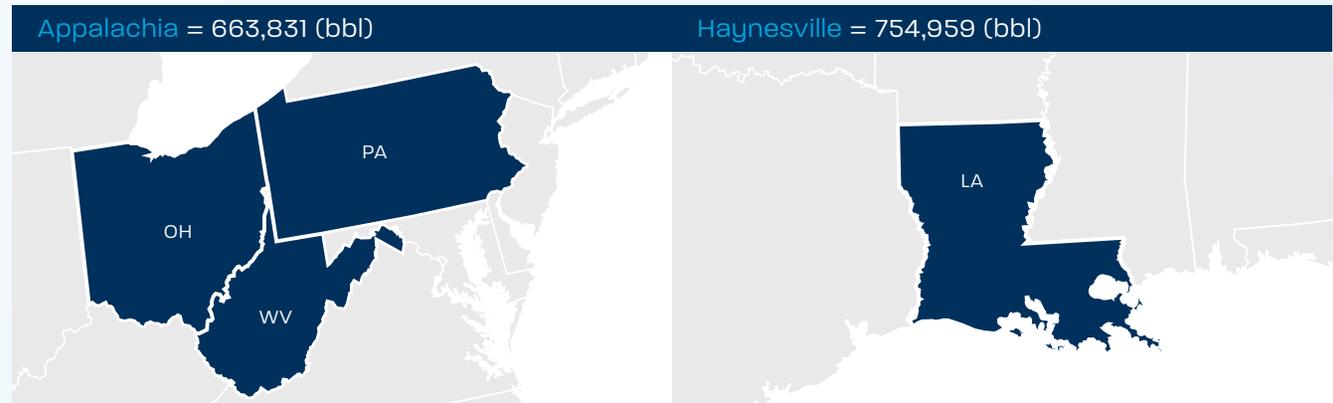
Companywide Freshwater Use Compared to Freshwater Neutral Offsets From Conservation Projects + Operational Offsets, in Millions of Barrels (MMbbl)*

■ Freshwater Use   ■ Recycled Water + Cumulative Freshwater Neutral Offsets[44]

Millions of Barrels (MMbbl)*	2018	2019	2020	2021	2022
Freshwater Use	27.9	37.9	40.9	47.2	88.8
Recycled Water + Cumulative Freshwater Neutral Offsets	72.4	69.5	57.8	47.3	88.8
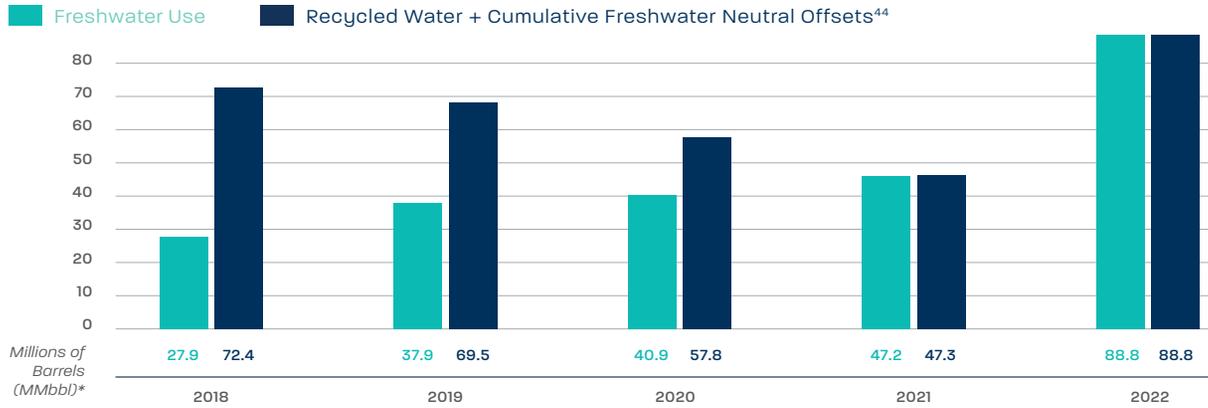
*The total flowback and produced-water percent recycled from 2020 to 2021 dropped due to regulatory restrictions that inhibit or prevent recycling in certain operating areas. Additionally, when SWN acquired Indigo in September 2021, there was no infrastructure nor procedures in place to promote recycling of water. As such, no water was recycled in our Haynesville operations in 2021. SWN is currently working to increase recycling in our Haynesville operations.

Freshwater Neutral Formula

Total Water Including Fresh Water ≤ Alternative & Reuse Water / Operational Offsets / Conservation Offsets = Freshwater Neutral

When the Total Water Used in our operations is less than or equal to the sum of **Alternative and Reuse Water, Operational Offsets, and Conservation Offsets** for each of our operating areas, we will have achieved Freshwater Neutral operations.
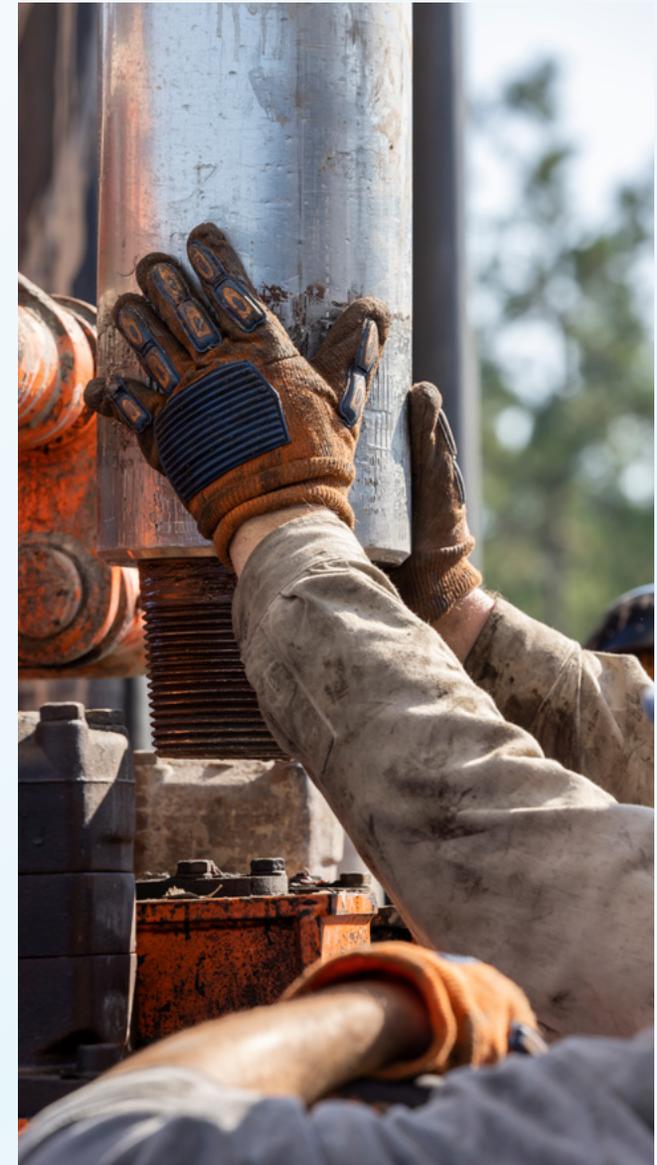
Freshwater Neutral

To meet our Freshwater Neutral commitment, SWN takes a hands-on approach to conservation projects in our operational areas, to provide freshwater benefits that match or exceed our operational freshwater usage. We work with government agencies, nonprofit partners and local community organizations to restore wetlands, improve water quality and aquatic habitat, and contribute to natural watershed functions by protecting and increasing aquatic and local biodiversity. Most of the projects we have undertaken address legacy water pollution issues unrelated to oil and gas operations or activities and provide a positive, lasting benefit to local communities. "New" fresh water from these projects provides a net "credit" of fresh water returned to the environment, which we use in our Freshwater Neutral program to replenish freshwater usage in our operations. In 2022, we used credits from existing and legacy water conservation projects to achieve freshwater neutrality.

10
major conservation projects completed since 2014 in Arkansas, Colorado, Pennsylvania, and West Virginia

1.7B
gallons of beneficial fresh water from our active conservation projects in 2022

17.1B
gallons of beneficial fresh water from our conservation projects since launching the Freshwater Neutral program

Freshwater Neutral in Appalachia and Haynesville in 2022, in MMbbl[45]

96.2
MMbbl
≤
96.3
MMbbl

Total Water Used Including Fresh Water

Total Recycle & Offsets
Water Recycled: 7.45
Conservation Offset: 88.75
Operational Offset: 0.09
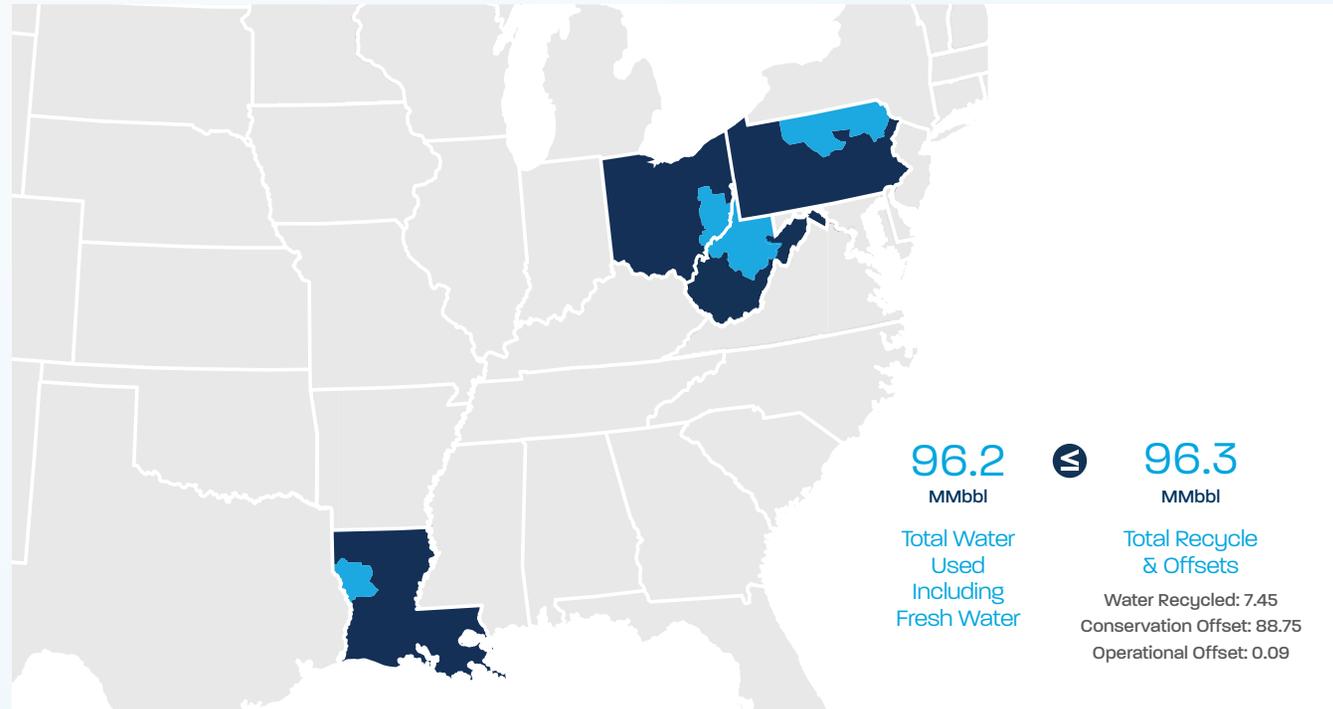
Haynesville Highlight: Bringing Freshwater Neutral to a New Market

SWN prioritizes projects for our Freshwater Neutral program that help replenish the water in all our operational areas. In 2022, we expanded our Freshwater Neutral program into Haynesville, partnering with Ducks Unlimited to construct channels in marshes in order to direct the flow of water and sediment from the Mississippi River Delta. This promotes development of adjacent wetlands and supports the development of native waterfowl habitat along the Louisiana coastline. This project was approved in 2022 and will be constructed in 2023.

Responsible Produced-Water Management

Typically, between 5% and 20% of the water we use downhole flows back out of the well after hydraulic fracturing and during production. Produced water is our primary effluent stream. We manage this produced water safely and responsibly through storage, transport, reuse/recycling and, when necessary, disposal.

RECYCLING PRODUCED WATER

SWN is taking initiative to reduce, reuse, and recycle effluents and waste streams where possible. We recycle produced water effluent back into our operations as much as feasible, which reduces our need for fresh water. The produced-water recycling rate across our Appalachia operations in 2022 was 51.1%, facilitated by continued infrastructure investments, including pipelines and storage systems and improvements in our fracture fluid designs. Using pipelines instead of trucks to move water reduces a primary spill risk and significantly reduces truck traffic, further minimizing the environmental and community impacts of our business. (For more information on reducing truck traffic, see the Community section, page 60).

Our ability to reuse produced water is limited in our Louisiana and Ohio assets, due to infrastructure and regulatory limitations. We are taking a proactive approach to expanding water reuse infrastructure and opportunities in Louisiana. In 2022, we began working with other operators, state agencies and industry groups to promote regulations that support water recycling and environmental responsibility across the industry. These new regulations were published by the Louisiana Department of Natural Resources in May 2023, and are in effect. We believe that this will help increase the amount of water we can recycle in Haynesville.

If we are not able to reuse produced water within our operations, we work to safely share it with others in our industry. In 2022, we shared a total of 1.5 million barrels of our produced water with other operators in Appalachia, sparing it from disposal. We also receive produced water from other operators when logistics and water quality are aligned with our operational needs. We are constantly searching for new and innovative ways to responsibly manage produced water. For example, in 2022, we conducted a pilot program to evaporate produced water, reducing the number of trucks carrying water over land to disposal. We continue to evaluate the long-term viability of this approach in conjunction with our operations.

When we dispose of produced water, we do so in approved saltwater injection wells via vetted third-party service companies (see page 34).

51.1%[39]
of the produced water we generated in Appalachia was recycled in 2022.

Water Used and Recycled, in Barrels (bbl)[38]

WATER SOURCED

7,454,161
Recycled Produced Water

88,745,846
Fresh Water

WATER USED IN OPERATIONS

1,688,632
Drilling – Fresh Water Only

87,149,714
Hydraulic Fracturing

32,152,513
Produced Water Generated

23.2% Recycled

7,454,161
Total Produced Water Recycled by SWN

23,170,719*
Sent to Wastewater Disposal

1,250,115
Produced Water From Other Operators

1,494,031
Produced Water to Other Operators

*There is currently no infrastructure nor procedures in place in Haynesville to promote recycling of water, but we are currently working to introduce our successful recycling program to this area.

PRODUCED-WATER STORAGE & TREATMENT

SWN stores produced water in a variety of ways, including aboveground storage tanks and impoundments. We consider multiple factors to determine the best approach, prioritizing the safety of our team and the environment. We also consider regulations and permitting, topography, surface footprint, subgrade suitability, quantity, operational support services (i.e., trucking, pipelines, etc.), proximity to disposal, economics (capital and operating expenses), length of storage and closure requirements.

In West Virginia, Ohio and Louisiana, we store produced water in aboveground tanks, with lined secondary containment under the tanks that are sized to contain spills. In Pennsylvania, we use a combination of aboveground tanks and permitted impoundments. The impoundments are double-lined and equipped with leak-detection monitoring. We also use groundwater monitoring wells around the impoundments to identify and address any potential leaks or spills.

REDUCING FRESHWATER 'CAPTURE'

We aim to limit any inadvertent capture of fresh water, because it results in water lost from the natural water cycle. This can happen when rainwater, surface water or groundwater collects in water storage impoundments, reuse/recycling facilities, secondary containment systems, groundwater monitoring systems or other facilities. As we continue to develop our assets and reevaluate and modify equipment and tank design, we also evaluate the size and design of secondary containment systems and modify as appropriate to mitigate the freshwater capture. We also monitor, test and discharge uncontaminated groundwater rather than impounding it with produced water. We do this in accordance with state regulations, which allow for this option when captured rainfall meets certain criteria.

WASTEWATER DISPOSAL

If we are unable to recycle produced water, we carefully dispose of it in accordance with applicable laws, regulations and best practices. For our operations in West Virginia and Ohio, produced water is trucked to Ohio for injection, avoiding areas of seismic concern. In Pennsylvania, we transport produced water to vetted third-party facilities equipped and permitted to reuse it or treat and discharge it. We do not discharge produced water to groundwater, surface water, seawater or to municipal water treatment systems. In Louisiana, we truck our produced water to saltwater disposal wells in Louisiana and Texas for injection.

Throughout our operations, we are mindful of concerns and the latest scientific knowledge about wastewater disposal. We also conduct thorough assessments of saltwater disposal wells and operators, which guide our site and vendor selection. In 2022, approximately 23.2 million barrels of wastewater were disposed of from our primary operating areas. The primary cause of increased disposal volumes as compared to prior years is due to our expanded operations in Ohio and Louisiana. In both states, there are regulatory and operational hurdles that limit or prevent reuse of water and water sharing between operators. SWN has been actively working to eliminate these challenges and anticipates that reuse of water in both Ohio and Louisiana will continue to increase in the coming years.
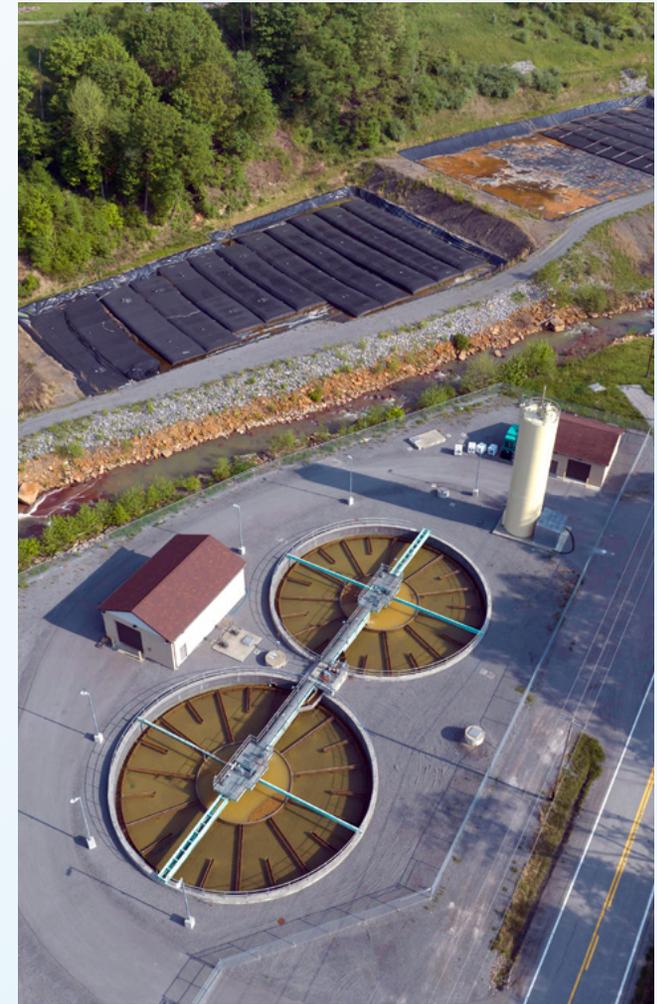
Muddy Creek treatment facility in West Virginia

PROTECTING WATER RESOURCES

Hydraulic fracturing occurs thousands of feet below the surface, well below any freshwater aquifer zones and with layers of impermeable rock in between. Thus, the primary way that SWN avoids impacts to surface water and groundwater supplies from our hydraulic fracturing is ensuring proper wellbore construction and integrity.

SWN uses industry best management practices (BMPs) for well construction, drilling, completion and maintenance to ensure the integrity of our wellbores, including baseline water quality testing; monitoring each phase of drilling, completion and production; and verifying the mechanical integrity of steel casings.[40] These BMPs meet or exceed applicable regulations and are updated regularly as new technologies, practices and information become available.

When planning wells, we investigate historical drilling activity in the vicinity to ensure that we avoid affecting nearby wells, including investigating public records of oil and gas and water wells and communicating with landowners about previous drilling.

During the initial drilling and completion of our wells, we use cement bond logs whenever required by applicable regulations. In addition, we use cement bond logging tools to evaluate wellbore construction integrity whenever shortcomings in the cementing process of casings are considered possible. When using these logs, we rerun the testing/logging process with pressure on the casing to test for good bonding. In addition, we place pressure gauges on all wellbore annuli for the life of the well and monitor these gauges remotely and through daily in-person observation to ensure wellbore integrity. This allows any wellbore integrity issues to be detected early.

In West Virginia and Ohio, we test all water sources within 3,000 feet of the drilling location, exceeding the regulatory requirement to test within 1,500 feet. In Pennsylvania, we test all water sources within 2,500 feet of drilling locations, matching state regulatory standards. In 2022, we instituted a baseline water testing program in Haynesville, testing all water sources within 3,000 feet of the drilling location. Louisiana has no requirement for baseline water testing. We perform post-drill testing in all areas in response to water well complaints, if requested by landowners or where it is written into a lease agreement.

Our Record

SWN takes any landowner or community concerns about surface water and groundwater very seriously, and we investigate every source-specific issue brought to our attention. We drilled 138 unconventional wells during 2022, bringing our total number of unconventional wells drilled through year-end 2022 to 6,080. Since 2020, we have recorded 40 instances where individuals have voiced concerns, or a claim, regarding privately owned groundwater wells in relation to our exploration and production operations. Of those claims, 25 were in Pennsylvania and 15 were in West Virginia. As the chart below illustrates, investigations ultimately revealed that 35% of claims found no water quality problems[41] and 48% of claims were conclusively attributed to the water well itself (25% bacterial[42], 3% drought, 15% stray gas[43], 5% mechanical failure[44]). Note that in some scenarios, no diagnosis was possible (e.g., landowner permission was not granted for water well sampling/analysis, an investigation is still open, or the claim is otherwise not yet resolved); these cases are classified as "miscellaneous."[45]

Please see **page 58** for more about our approach to community engagement and concerns.
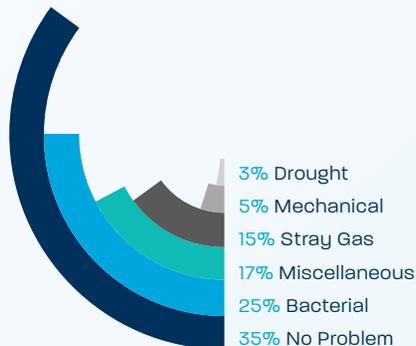
Right Products Program

SWN's Right Products program helps us to better understand and address any potential risks associated with fracture fluid additives. A third-party toxicologist assesses each fracturing fluid chemical down to the component level for key environmental and health hazards (e.g., toxicity, bioaccumulation potential, appearance on a regulatory list of chemicals of concern, developmental toxins, carcinogens). The program has enabled us to honor a supplier's right to protect proprietary information, while allowing us to assess the profile of our fluid additives.

Each product is given a numerical score in the Right Products hazard assessments. Our third-party toxicologist works with our suppliers to ascertain details as to a product's chemical makeup. SWN then receives the final score for the product and a corresponding summary report. Based on these results, SWN's Chemical Advisory Board evaluates whether the product will be approved for use in SWN operations. Products can also be denied or recommended for further evaluation. If a product receives a high hazard assessment score (implying potential concerns) and a ready substitute is not available, we conduct a more detailed risk assessment, which is presented to SWN's Chemical Advisory Board for a decision. When appropriate, assessments are elevated for senior leadership consideration.

The fracturing fluid used in SWN's operations is 99.9% water and sand. The remaining portion is made up of additives necessary for safe and effective completion operations, including biocides, friction reducers, hydrochloric acid, scale inhibitors and corrosion inhibitors. We do not use benzene, toluene, ethylbenzene or xylenes (BTEX), or diesel as fracturing additives.

Water & Sand 99.9%
Additives 0.1%
Biocide 0.05%
Friction Reducer 0.05%
Hydrochloric Acid 0.02%
Scale Inhibitor 0.01%
Corrosion Inhibitor 0.00%
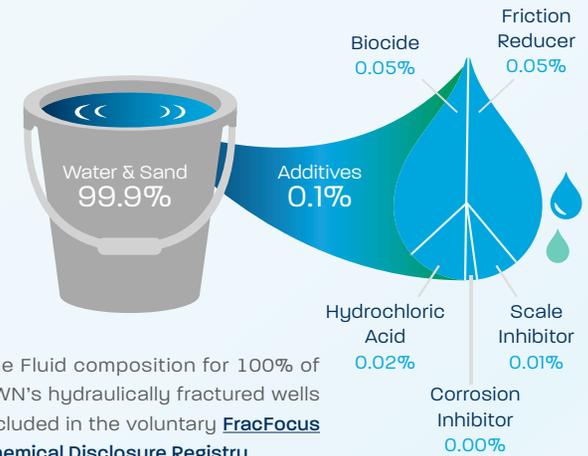
The Fluid composition for 100% of SWN's hydraulically fractured wells included in the voluntary **FracFocus Chemical Disclosure Registry**

Source: Southwestern Energy, Ground Water Protection Council.

Well Water Impairment Claim Findings

3% Drought
5% Mechanical
15% Stray Gas
17% Miscellaneous
25% Bacterial
35% No Problem

Right Products Program Scoring Results

357 products scored for 31 service companies + chemical suppliers

19% Denied for use in SWN operations
21% Approved after further evaluation
60% Approved after initial assessment

Land

At SWN, we aim to be good stewards of the land and ecosystems in and around our operations. Our overall goal is to leave the land where we operate in better condition than we found it.

Surface Impacts & Biodiversity

We work to minimize surface impacts, prevent spills, reduce waste and protect biodiversity throughout our operations. Our approach aligns with the best practice mitigation hierarchy, and we prioritize avoiding impacts and then mitigating any impacts we do have. We work to rehabilitate and restore the land where we operate – including during ongoing operations and at site closures – to minimize our own footprint and maximize environmental and community benefits. Our approach to biodiversity and site remediation is overseen by vice president-level leaders at the division and corporate levels.

We undertake biodiversity assessments as part of our pre-operation planning process, to identify potential biodiversity priority areas, including habitats of sensitive, threatened and endangered species. As relevant, these assessments include consultation with the U.S. Fish and Wildlife Service and/or state land management agencies, to identify potentially threatened and endangered species before beginning any construction. We develop biodiversity management plans for all our operations.

When we identify biodiversity priority areas and/or if there are any species of concern, we bring in third-party experts to help develop plans that will meet or exceed all regulatory requirements. We also engage with residents and other local stakeholders, and incorporate their feedback as relevant into our biodiversity and surface impact-reduction efforts.

We continue to monitor and mitigate potential impacts on biodiversity throughout our operations, including the management of erosion and invasive species. Once a well is drilled, completed and producing, we implement restoration best practices – which meet and, in most cases, exceed regulatory requirements – to address potential erosion, invasive species and other site impacts.

SWN pioneered technology for erosion and sedimentation control using pre-vegetated, natural materials. This technology provides immediate and ongoing erosion control, helps revegetate the area and reduces the amount of earth disturbance needed for site restoration.

One of the ways we minimize our impact is to limit our surface footprint by drilling multiple wells on each well pad (10-plus wells per pad), where technically feasible. In all our operating areas, we maximize the underground lateral length of our wells to the extent possible, allowing us to drill fewer wells to produce the same amount of gas. In 2022, our wells averaged 3 to 5 miles, and one of our wells set the North American record for longest well. This approach cuts our surface footprint by a third of what it might otherwise be.

Our Freshwater Neutral projects focus on improving water quality in wetlands, streams, rivers and other surface water bodies. Water quality improvements have a direct, positive impact on the aquatic habitat and related biodiversity of the project areas. Biodiversity improvements related to our Freshwater Neutral projects include fisheries habitat restoration, waterfowl habitat development and riparian vegetation rehabilitation.

Protecting Sensitive Species & Habitats

The areas where SWN operates include habitats of several bat species, including three listed by the U.S. Fish and Wildlife Service as endangered or threatened. In 2019, we began a monitoring program for bats in areas where we implemented conservation measures after operations, and that monitoring continued during 2022. Monitoring of the bat boxes will continue until 2024.

Several of the conservation efforts we have undertaken as part of our Freshwater Neutral work have also helped restore habitats for threatened or endangered species.

Decommissioning & Restoration

SWN employs best practices and adheres to all regulatory requirements through the development of and ultimate closure of our well pad sites. We retire wells in line with regulatory deadlines. Decommissioning and restoration are overseen by our regional leadership, and we set aside sufficient funds to address closure and rehabilitation.

Preventing Spills

SWN's operational practices help ensure careful management of a variety of fluids associated with operations, including natural gas liquids, fracturing fluid and produced water, as well as recycled water and condensate. SWN maintains a commitment to report regularly on environmental issues to the appropriate regulatory groups.

Spill prevention controls and spill response plans are in place throughout our operations, and we regularly conduct spill response drills.

We install permanent containment systems under production facilities, and we use temporary catch basins for shorter-duration drilling and completion operations. Shutoff valves on rigs enable us

to immediately stop any leak or rupture. We keep records of every spill – even those captured by secondary containment – and record near hits so we can learn from those events and put preventive measures in place.

SWN tracks all spills, regardless of volume, and divides them into three severity tiers. The more severe Tier 1 and Tier 2 spills[46] are included in employee performance measures that impact compensation and bonuses. In 2022, Tier 1 and Tier 2 spills totaled 271 barrels. Most of this volume was due to a spill of produced water due to a valve washout, which was immediately remediated.

The remainder of the spills were small spills of produced water, frac water, oil-based mud and sediment during active operations. SWN remediated all spills following regulations. We mopped up liquids and removed impacted soils to prevent any impact to the environment.

Volume of Tier 1 & Tier 2 Spills, in Barrels (bbl)

Year	Barrels (bbl)
2018	694
2019	95
2020	36
2021	134
2022	271
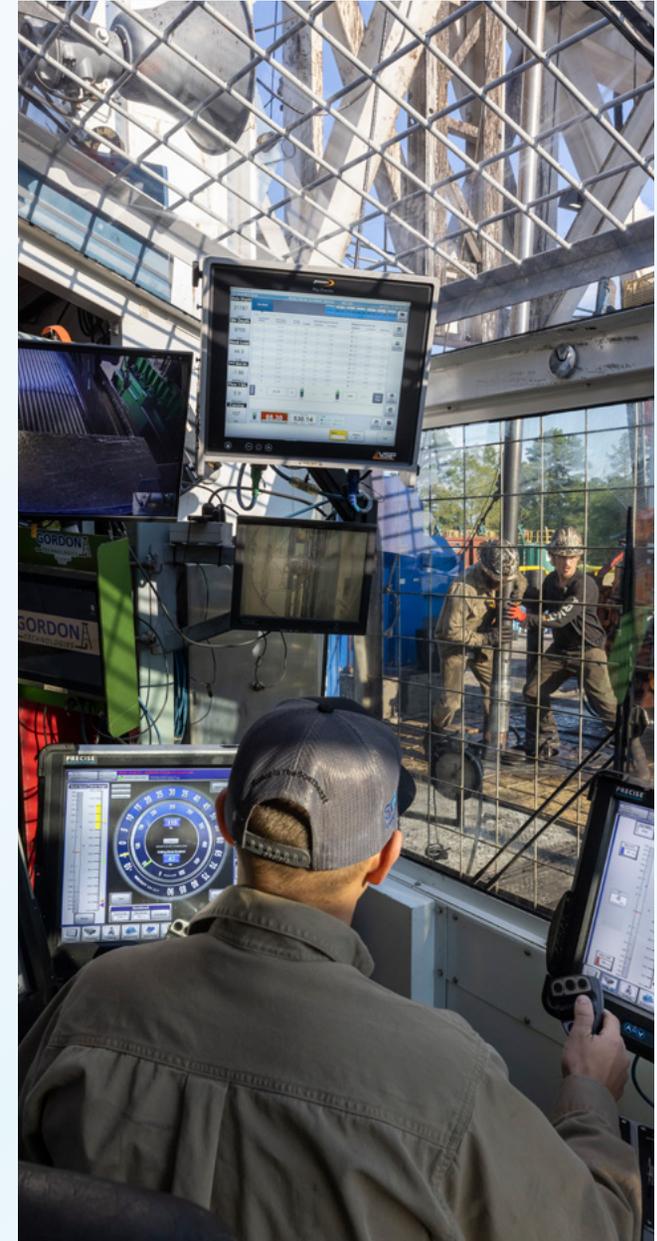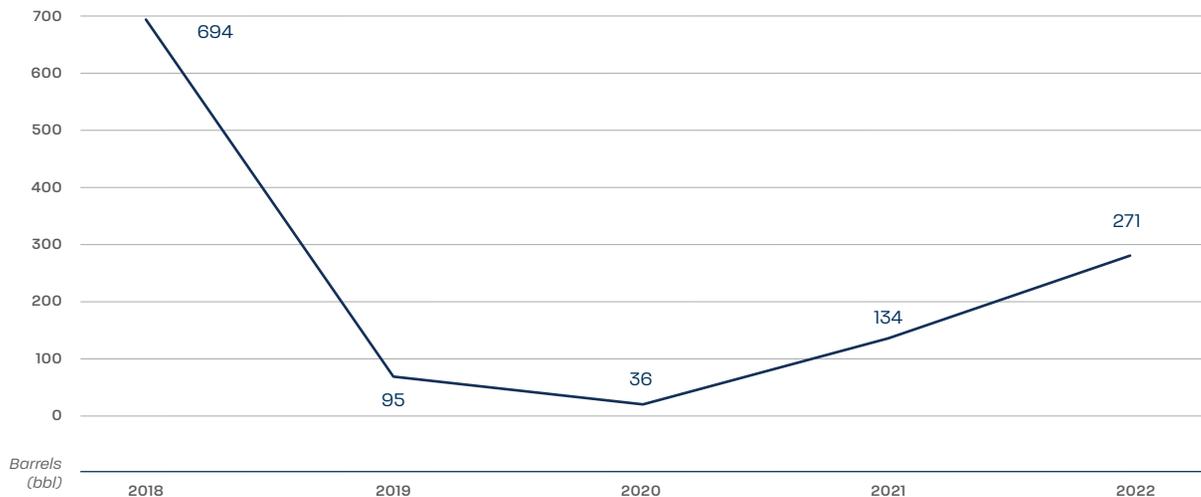
Solid Waste Management

SWN's primary solid waste stream is the mixture of rock cuttings and oil-based drilling mud that comes out of a well as it is being drilled. Our approach is driven by the companywide waste management policy, supported by individual waste management plans in each operating region, which are reviewed annually to ensure alignment with state and local regulations. We also provide waste management and other waste-related training for all relevant personnel.

Our operations use closed-loop systems to manage drilling mud. This means that all cuttings and associated fluids are captured and then separated. Then, the liquid mud is reused for drilling and the solids are removed from the well pad in covered, lined trucks. This material is further processed and transported to approved disposal sites. We are diligently working to develop our understanding of our value chain emissions. As part of this effort, we have conscientiously partnered with vendors that are also working to gain insight into their emissions profiles. These partnerships are allowing us to identify and address opportunities to reduce our value chain emissions profile. For example, in the Haynesville, we have partnered with a third-party vendor on liquids waste management and have improved our understanding of waste-related emissions and opportunities to reduce these emissions.

Our Health, Safety and Environment team conducts a rigorous audit of each landfill site to ensure compliance with both regulations and SWN standards. We also conduct periodic follow-up audits on landfills that are in use. At this time, due to regulations, we are unable to reuse drill cuttings in our Appalachian operating areas. However, in 2022, we have been able to recycle drill cuttings in Haynesville. We continue to explore beneficial reuse options for this waste stream, to reduce landfill volume.

Naturally occurring radioactive material (NORM) can occur in very small concentrations in some rock formations. Our NORM management program specifies procedures for detecting, managing and disposing of NORM-affected materials. All remediation or decommissioning of NORM waste is conducted by a licensed third party.
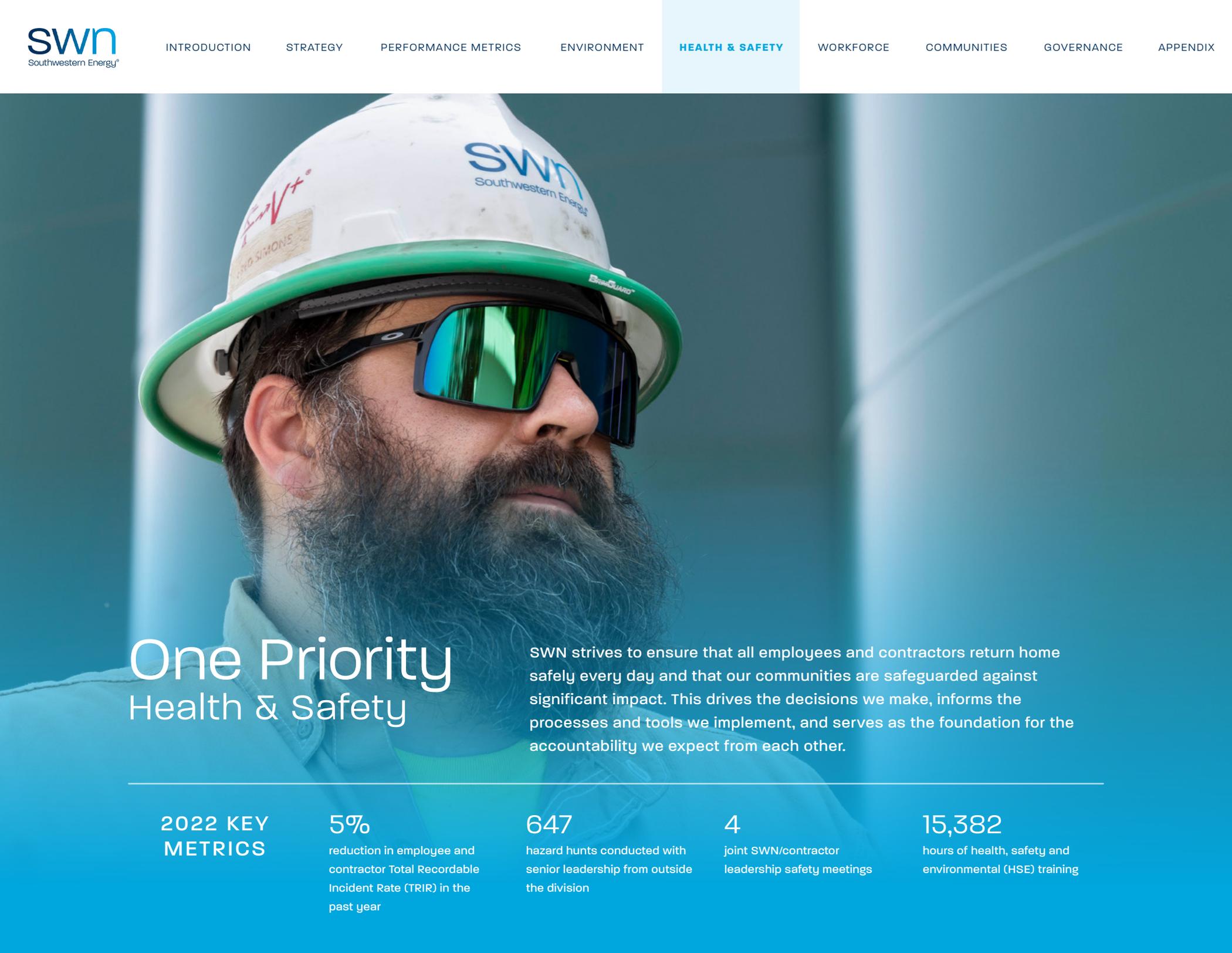
One Priority
Health & Safety

SWN strives to ensure that all employees and contractors return home safely every day and that our communities are safeguarded against significant impact. This drives the decisions we make, informs the processes and tools we implement, and serves as the foundation for the accountability we expect from each other.

2022 KEY METRICS

5%
reduction in employee and contractor Total Recordable Incident Rate (TRIR) in the past year

647
hazard hunts conducted with senior leadership from outside the division

4
joint SWN/contractor leadership safety meetings

15,382
hours of health, safety and environmental (HSE) training

Occupational Safety

At SWN, our commitment to safety is central to everything we do. Based on this central commitment, we have rigorous systems, programs, tools and training in place that support everyone associated with our operations to stay safe and healthy.

Safety is an integral step in the Board of Directors' assessment of all corporate risks and opportunities. Our leaders, including senior management, are evaluated on — and held accountable for — the health and safety performance of their teams. (See Health, Safety & Environmental Management on **page 78** for more details.) At SWN, we have specialized managers and teams in areas such as safety, air compliance, environmental, asset and operating integrity, and regulatory, in both field operations and corporate HSE programs.

We met or exceeded our safety and environmental targets in 2022, illustrating our commitment to working as ONE Team to adhere to SWN's high standards.

Safety Management Standards & Systems

SWN's commitment to safety is embedded in our Health, Safety and Environmental (HSE) Policy, our HSE management system (see **page 78**) and our HSE Handbook. The HSE Handbook, which is available digitally to all employees and contractors, lays out specific roles and responsibilities for management, employees and contractors. It also includes details on internal rules, standards and regulatory requirements for occupational safety, vehicles and motorized equipment, and occupational health/industrial hygiene. The information was created through input from all operating regions and functions across the company, including regional division leaders, HSE, Drilling, Completions, Operations, Human Resources, Regulatory and Legal.

In 2022, we updated 22 policies that enhance our safety standards. We began by conducting a gap assessment to ensure that our processes are responsive to the hazards faced by our growing company. Updates were developed by a cross-functional team to integrate on-the-ground knowledge of hazards and effective mitigations. In addition, a special HSE Executive Steering Committee was put into place to review and approve the new standards.

We also continued to enhance the safety management software solution that centralizes and integrates our existing standards, processes and systems in one place. This includes training modules;

internal and regulatory inspections, assessments and audits; and corrective action tracking and Behavior-Based Safety (see **page 43**). The system automates safety-related workflows across the enterprise, including assigning corrective actions and follow-up responsibilities, and provides increased visibility into safety performance and compliance across the company, to further drive accountability and continuous improvement.

Haynesville Highlight: Raising the Bar for Safety

Bringing SWN's approach and culture to Haynesville resulted in improved safety management and performance. This included our ONE team philosophy (see **page 55**), which prioritizes a holistic approach to operating collaboratively with contractors, serving as partners in improvements to manage HSE issues.

ASSURANCE & ASSESSMENTS

Our HSE assurance process includes regular assessments of SWN's own and our contractors' operations, as well as all third-party waste facilities, for both compliance and HSE quality control purposes. For example, we have a third party that periodically audits each one of our rigs, as well as our drilling contractors. Assessments such as these allow us to standardize and replicate best practices, as well as to identify contractors with effective HSE systems.

INCIDENT MANAGEMENT

The goal of our incident management program is to identify trends and hazards to avoid incidents before they happen. Our robust incident management system database tracks, analyzes, reports and follows up on HSE incidents. The system's customized and automated reports and dashboards help advance our analytics and forecasting capabilities, to assign and track the implementation of corrective actions, and to share lessons learned with our ONE Team employees and contractors to help avoid future incidents. The program enables us to analyze recordable incidents by type, share learnings, and integrate tracking and reporting of incidents.

In 2022, 135 near hits were reported and reviewed to improve hazard identification and mitigation. For many of these incidents, there was an immediate safety stand-down held on site to allow for immediate correction of the hazard. Of these near hits, 14 were designated as high-potential near hits that could lead to potentially serious outcomes.

Recordable incidents are also analyzed by type, so that we can determine the most common recordable incident types and target training for these incident types. In 2022, our recordable incidents, broken down by type, were:

2022 TRIR Incidents by Category

- 6% Body Placement
- 6% Rubbed/Abraded By
- 6% Overextension
- 17% Struck By
- 32% Caught Between
- 33% Slips/Trips/Falls
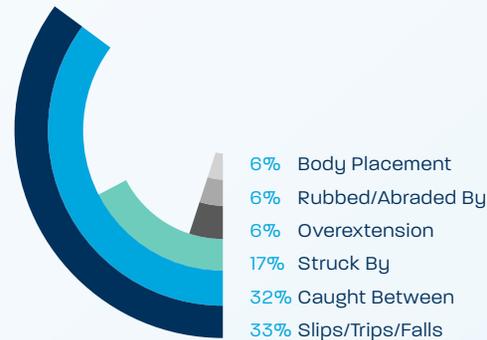
Integrated Safety Management

- Safety standards and procedures
- Emergency response plans
- Safety and environmental incidents, near hits and performance data
- Behavior-based safety (BBS) observations
- Training requirements
- Job Safety and Environmental Analyses (JSEAs) and hazard identification tools and checklists

Hazard & Risk Identification & Mitigation

Empowering our people to identify and mitigate hazards and risks to avoid safety incidents before they happen is the foundation of our safety culture. SWN's comprehensive suite of programs create a culture of safety in which all our employees and contractors are empowered to work together as ONE Team to keep each other safe.

BEHAVIOR-BASED SAFETY

Behavior-based safety (BBS) – or the understanding that operational safety performance is dependent on individual and team behavior — is crucial to preventing incidents from occurring. Vital to the program is that all observations and critical conversations are made in a spirit of mutual respect and based on the moral and ethical responsibility to care for one another's safety.

SWN employees and contractors address and report unsafe behaviors immediately through a mobile app that is integrated into our overall safety management software system. In 2022, we recorded 21,103 behavior-based safety observations.

LIFE SAVER RULES

Life Saver Rules is a tool to help our team members identify work activities with higher potential risks and provide clear and concise directions on safely performing these tasks. The rules focus on the eight highest-risk activities performed daily, including pressurized systems, driving, energy isolation, hot work, lifting and rigging, and working in a confined space, in a hazardous atmosphere or at heights. These activities are represented by a series of pictograms that appear on stickers, tip sheets and pocket guides reminding workers of related risks and how to avoid them, including using stop-work authority. These resources are available in all areas of operations and are made available in both English and Spanish.

Hazard Awareness Tool

Workers use our Hazard Awareness Tool, which is based on the hierarchy of five controls – elimination, substitution, engineering controls, administrative controls and personal protective equipment (PPE) – to help them identify on-the-job hazards. In 2022, SWN added the Hazard Awareness Tool energy sources to the Job Safety and Environmental Analysis (JSEA) checklist (see below), to help make sure that the hazards associated with each task are identified and mitigated.

JOB SAFETY & ENVIRONMENTAL ANALYSIS

SWN's workforce undertakes JSEAs to identify, mitigate and eliminate HSE risks before beginning a job. JSEAs are led by specially trained employees who provide direct support in the field. This includes coaching in real time with a focus on identifying and mitigating critical hazards, especially those that can result in a serious injury or fatality. In 2022, SWN operational divisions aligned around a standard format for all JSEAs, creating more consistency and efficiency across the enterprise.

SAFETY & ENVIRONMENTAL ASSURANCE CHAMPIONS

SWN's Safety and Environmental Assurance Champion (SEAC) program rotates experienced safety professionals through our operational divisions and work sites. These champions provide on-site HSE training and coaching, as well as assessing applicable risks and behaviors, and then report back to SWN leadership to share learnings and develop ideas for improvement.

Unlike many of our peers, who have floating SEACs who spread their time over multiple operating areas, SWN has a dedicated SEAC at every one of our high-risk operating sites.

Stop-Work Authority

Every individual present at a SWN job site has the responsibility and the full authority to stop all work on the site immediately – no questions asked – if a safety or environmental risk is perceived. Once work is stopped, the risk will be assessed and either eliminated or mitigated.

Safety Training

SWN provides a wide range of HSE training to fortify a strong safety culture. SWN's hands-on Safety Leadership Training series provides preparation, education and skills for leaders to successfully drive and improve HSE culture and performance. Our Training Assurance Program (TAP) is a required HSE training program for all SWN and contractor employees working in the field. As part of training, we utilize a badging program for contractors (see Contractor Management on **page 56**) that shows verification of completing the TAP onboarding process, and all contractors must have TAP verification embedded in their badge before entering a site. In 2022, we created new courses, including a Life Saver Rules refresher course, a HSE Handbook refresher course and an Incident Reporting course.

JSEA WORKSHOPS

SWN and contractor employees working in the field participate in JSEA training workshops to further improve and standardize the JSEA process and enhance risk awareness, identification, mitigation and elimination. These workshops include training on the Hazard Awareness Tool and other hazard identification tools and processes (see Hazard Risk Identification & Mitigation on).

DRIVER SAFETY

All employees who operate a vehicle for company business must take and pass a driver training course every two years. In 2022, SWN drivers logged approximately 9.7 million miles on company business. In addition, we had one of the industry's lowest Recordable Vehicle Incident Rates (RVIR) in the American Exploration and Production Council (AXPC) peer companies. All SWN vehicles have forward-facing cameras that provide in-vehicle monitoring and a real-time feedback system, which allows for immediate behavior modification and notifies management of recurring problems.

SHORT-SERVICE WORKER TRAINING & MENTORING

"Short-service workers" (SSWs) are field workers who have had less than six months of service with their respective employer company or in their job function or role. If not properly trained, they can pose a disproportionate risk for incidents. Our Field Employee Competency program provides training and mentoring for short-service SWN and contractor workers to help them understand SWN's HSE culture, as well as the company's expectations and requirements for their role. Everyone in the program is paired with a more experienced mentor trained in the same job function. At the end of the program, the participant must pass a job-specific competency evaluation.

15,382
hours of HSE safety training for employees and contractors

TAPROOT® TRAINED INVESTIGATIONS

SWN employees in our operating divisions participate in TapRooT® Investigation Training, which provides tools and systems that improve incident investigations. This allows for better identification and understanding of the true root cause of a given incident (including near hits) and helps us capture learnings that can be used to prevent incidents and mitigate or eliminate risks. Part of the investigation process is to develop meaningful corrective actions to address and mitigate the root causes, to prevent recurrences across all operating areas.

14
average hours of HSE training per person

Color-Coding for Increased Safety

In 2022, due to the expansion of our operations, we had a large number of new employees and contractors join our ONE Team culture. To create a clear visual indicator of the newer worker and to provide them support as they learned our safety culture, we developed a multitier "color coding" program. In addition to the green hard hat that has long been used to recognize SSWs within the industry, we added blue hard-hat bands for SSW mentors.

Occupational Safety Performance

SWN measures safety performance using a range of leading (e.g., management, employee and contractor participation) and lagging indicators, e.g., Total Recordable Incident Rate (TRIR), Days Away, Restricted or Transferred (DART) rate and Recordable Vehicle Incident Rate (RVIR). Leading indicators help drive continuous improvement in our safety performance, while lagging indicators help us assess the success of our safety management efforts (see Incident Management on). We are committed to continuous improvement and hold all employees – including senior management – accountable for this goal with year-over-year safety performance targets.

In 2022, we experienced one of our best years for safety performance across a range of metrics, including a TRIR and RVIR that are among the lowest in the industry. In addition, our DART Rate continued to be low.

SWN is advancing on our journey toward safety excellence by expanding our focus on eliminating serious injuries and life-altering events, as well as reducing all recordable incidents. In 2022, we began tracking Serious Incidents and Fatalities (SIF) and participating in benchmarking studies with the Onshore Safety Alliance (OSA) and the American Exploration and Production Council (AXPC).

Total Recordable Incident Rate (TRIR)

Legend: ■ Employees ■ Contractors ■ ONE Team (Employees + contractors)

Year	Employees	Contractors	ONE Team
2018	0.43	0.75	0.64
2019	0.33	0.67	0.56
2020	0.22	0.42	0.36
2021	0.11	0.49	0.39
2022	0.42	0.35	0.37

Days Away, Restricted or Transferred (DART) Incident Rate

Legend: ■ Employees ■ Contractors ■ ONE Team (Employees + contractors)

Year	Employees	Contractors	ONE Team
2018	0.25	0.23	0.24
2019	0.25	0.20	0.21
2020	0.11	0.23	0.20
2021	0.00	0.31	0.23
2022	0.25	0.19	0.21
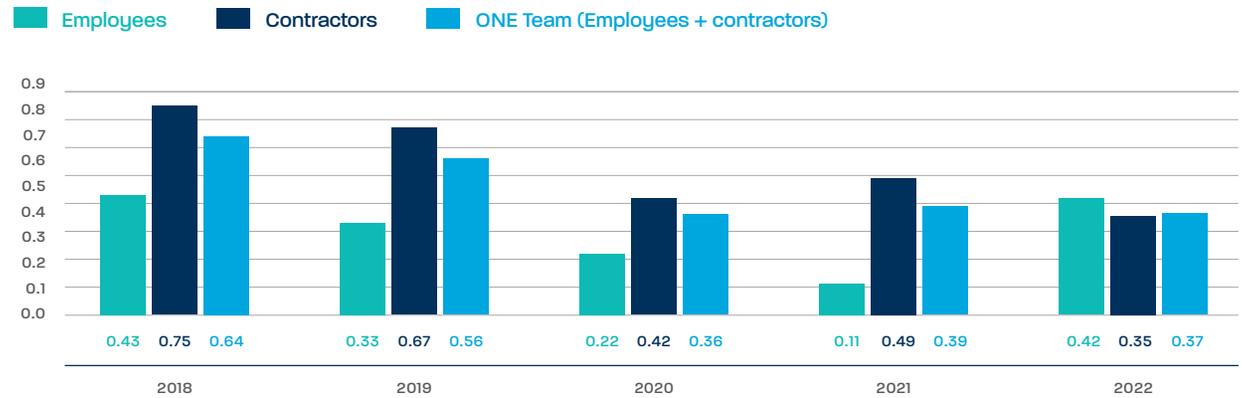
Asset Integrity

Our Asset Integrity Management (AIM) program helps us manage production equipment and facilities, from design to operation, to protect the health and safety of our people and the environment and to maximize operational reliability. In 2022, we completed a full field inventory across all our assets and divisions and integrated this with our inspection data management system. This helps us stay ahead of any potential future issues with similar equipment and allows us to automate our greenhouse gas reporting.

The AIM program is based on three pillars – design integrity, technical integrity and operational integrity – to help ensure that assets perform the required functions safely and reliably across their life cycle:

- **Design integrity** focuses on developing designs that comply with all technical and process safety standards. Hazards are "designed out" where feasible, and robust controls are "designed in" when hazards cannot be eliminated.
- **Technical integrity** focuses on quality assurance/quality control systems to validate that all new equipment is constructed to meet our mechanical integrity and operational requirements, and is manufactured and installed according to codes and standards. In 2022, we formalized our quality assurance programs with our vendors.
- **Operational integrity** focuses on confirming that equipment is functioning within the appropriate operating envelopes and that preventive maintenance programs are in place. In 2022, we developed operating manuals for each division, formalizing the operating procedures and creating consistency across the divisions, and making them more accessible to the end user.

As part of AIM, we review and update our integrity strategies at regular intervals, and adjust maintenance and inspection activities accordingly. To guide our efforts, we have set specific asset management objectives and targets, and developed a risk matrix that is annually reviewed and updated. We are continuing to advance our asset maintenance program to incorporate risk-based inspections.

SWN is a member of the American Petroleum Institute's Energy Excellence® program, which is focused on enhancing the integrity of operations across the industry by applying standards, implementing workforce training programs and participating in performance initiatives.
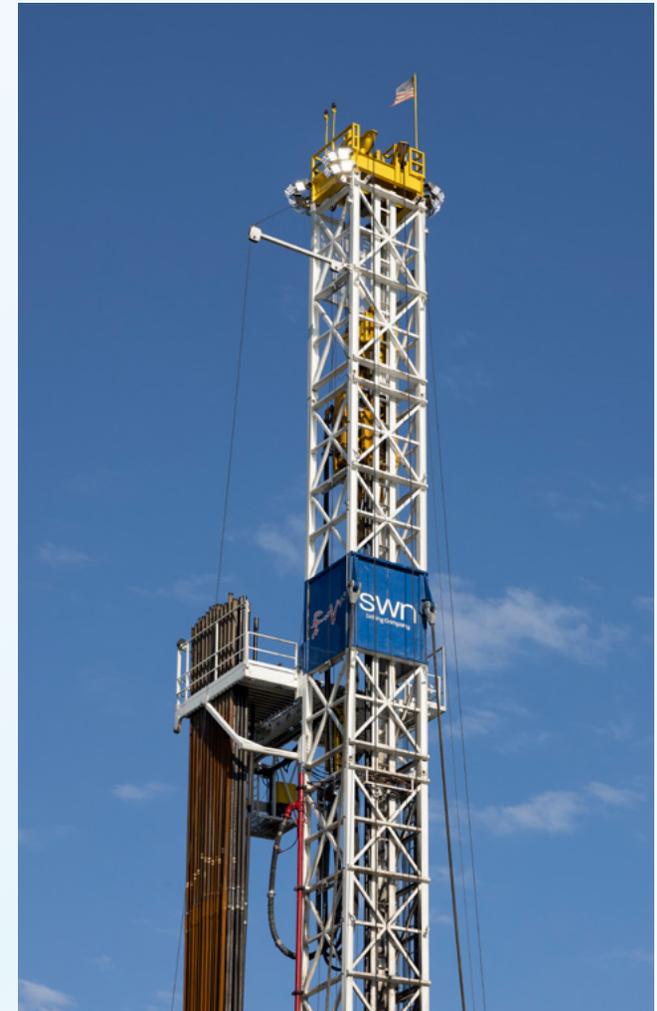
Occupational Health & Industrial Hygiene

SWN's industrial hygiene program seeks to anticipate, recognize, evaluate, and eliminate and/or mitigate workplace health risks in key areas — dust, radioactive materials and noise. In 2022, we conducted occupational health assessments in our Appalachia and Haynesville operating areas, and updated our programs based on our findings.

Protection From Excessive Noise

SWN works to mitigate excessive noise from our operations. We have stringent requirements for limiting noise exposure. Noise surveys are conducted regularly to identify high-exposure areas and determine employee exposure. We develop noise protection plans and take other measures to understand and mitigate impacts on local residents.

Emergency Preparedness

SWN prepares for and promptly responds to crisis and emergency events that threaten our employees and contractors, company assets, neighboring communities and/or business operations. We develop location- and situation-specific emergency, incident and crisis response plans across our operating areas. Crisis drills are conducted in all our operating locations, involving local emergency responders as appropriate. We also work with local emergency responders to develop preparedness response and business resumption plans for all SWN-operated facilities.

In 2022, we enhanced emergency preparedness training and updated our emergency response software and mobile phone app. Now, SWN's emergency responders can view emergency checklists for their role on the phone app and also access other items, for faster and consistent response. The software also holds all the Emergency Action Plans for the regions, along with the Crisis Management Plan and the Incident Management Plan. In 2022, training was held with the teams in all the regions on the updates, going over scenarios of emergency situations.

We have Severe Weather Assessment Teams to track severe weather in our operating areas and prepare emergency response plans for severe weather, and we utilize these teams in each of our operating areas to evaluate winter storms, hazardous road conditions and power outages, etc., that may impact the safety of our employees and contractors.

Health & Well-Being

SWN offers a wide range of benefits to encourage a healthy and safe environment, whether at home or at work. This is accomplished by offering benefits coverage to improve and maintain health, build wealth and provide protection. Our health and welfare programs include medical, pharmacy, dental, life insurance and disability. We also offer a limited charitable gift matching program. In 2022, we focused on increasing communication about benefits and how employees can use them.

Health & Well-Being Resources

Employees have access to benefit management tools, resources and lifestyle programs to help keep them as healthy as possible. A few highlights include:

- We recently enhanced our short-term disability plan, by increasing the amount of paid benefit based on the employee's length of employment.
- SWN's benefit enrollment system offers a dynamic questioning tool that recommends the best benefit package for employees and their families.
- For all work-related medical issues, employees have access to Axiom, allowing them direct contact with a registered nurse 24 hours a day, 365 days a year.
- For off-the-job urgent health issues, employees have access to similar real-time advice through a Blue Cross Blue Shield of Texas (BCBSTX) nurse line or through their MDLive virtual physician program.
- Employees who are enrolled in a medical plan can take advantage of discounted gym memberships across the U.S.

- Weight-loss management and chronic illness programs provide employees with convenient and flexible tools to manage their care at home, through our partnership with BCBSTX.
- Access to programs to support pregnancy and adoption assistance are available.
- Through our confidential Employee Assistance Program (EAP), employees receive expedited access to support for themselves and their family, with access to professionals on topics such as child or eldercare resources, financial planning assistance, legal services, behavioral health and many others. Each employee and his or her family members are eligible for eight annual face-to-face or virtual visit appointments.
- Employees can enroll in a legal advice benefit with access to attorneys across the country.
- Free preventive health screenings available annually through BCBSTX medical coverage.

One Culture
Workforce

At SWN, we consistently build a ONE team culture by attracting the best talent, creating opportunities for growth and fulfillment for all, and treating every person with dignity and respect. Our inclusive approach encompasses our independent contractors, who are evaluated, selected, and engaged based on their shared commitment to our goals.

2022 KEY METRICS

21%
of employees are women

15%
of employees are racial/ethnic minorities

32%
of new hires are diverse

99%
average women's salaries to average men's salaries in the same job title

Talent Acquisition & Development

SWN's talent acquisition and employee development efforts seek to ensure that we attract, retain and invest in the Right People and give them the knowledge, skills and resources they need to thrive and excel.

Recruitment & Onboarding

SWN actively recruits talented employees with exceptional technical and functional skills and sets them up for success. As part of a long-standing commitment to our communities, we look to hire locally and expand economic opportunity, including by supporting local education opportunities relevant to our industry. (See Developing a Local Workforce on **page 64** for more information.)

In 2022, to support our efforts to attract more diverse candidates, we expanded our recruitment outreach to include Texas Tech University and Louisiana State University, and partnered with the National Association for Black Accountants (NABA). (See Diversity, Equity & Inclusion on **page 53** for more information.)

We are committed to attracting the best early career talent, and we use our internship program to identify this talent. SWN's summer internship program attracts college-level candidates and finds opportunities to create positions for exceptional interns to join the company. Many new hires who join SWN directly out of college, particularly in technical fields, begin their careers in a mentor-guided rotational program, during which they cycle through different roles within the company before being placed in a longer-term position. In 2022, our internship program grew by 50% from the previous year.

Once hired, onboarding for all new employees includes participation in the R^2 journey ("The Right People doing the Right Things"), which provides a comprehensive look at who we are as a company, understanding of our core values, and how each employee contributes to our culture.

Training & Development

Our employee development programs provide our people with the tools, training and resources they need to grow. These opportunities include tailored offerings based on employee areas of development and on-demand virtual learning. SWN also encourages peer-to-peer learnings conducted by knowledgeable and experienced team members, as well as training opportunities conducted by specialists in the industry.

In 2022, we expanded offerings focused on our core value of people, which included Inclusive Leadership Training. We also focused on team-building sessions, in collaboration with leaders, using assessments so that employees can better understand their work styles and appreciate one another's differences.

In addition, our numerous health, safety and environmental training provides opportunities to bolster employees' skills and careers, while further enhancing our safe workplace.

Employee Engagement & Retention

SWN measures employee engagement through a biannual survey, which is administered by a third-party vendor. The results of the survey are analyzed, and an action plan is created and implemented based on feedback from the survey.

We measure employee turnover as a key indicator of employee satisfaction. In 2022, SWN's attrition rate was 20%, which we aim to reduce by helping our employees to build and grow their careers for the long term. This includes targeted development opportunities and programs to help enhance growth and meet career interests for the long term, while offering stretch opportunities, feedback and encouragement along the way.

For more information on employee benefits, see Health & Well-being on **page 49** or the GRI index on **page 91**.

Diversity, Equity & Inclusion

At SWN, we nurture an inclusive environment that reflects our core belief that every person should be treated equitably and with dignity and respect. We are focused on building a diverse and inclusive environment in our workplace, because it is the right thing to do, and because it helps us collectively thrive and succeed.

In 2022:

32%
of new hires were ethnically or gender diverse

100%
of director-level employees and above completed DE&I training programs

21%
of employees are women

In 2022, SWN continued to advance its Diversity, Equity & Inclusion (DE&I) efforts. This included rolling out Inclusive Leadership Training, with approximately 90% of SWN leaders successfully completing the training, expanding our diversity-focused recruiting efforts, and establishing Martin Luther King Jr. Day as an official SWN holiday. As we scale our programs, we continue to equip our leaders with the tools to understand and champion SWN's DE&I vision and initiatives. To ensure that we continue making DE&I progress, senior leaders are actively engaged in planning additional programs to propel our efforts forward and across the greater organization.

In response to employee feedback, in 2022, we launched a DE&I survey focused on hearing the voices of our employees and understanding their experiences and perceptions of DE&I at SWN. According to the survey, a majority of employees said their managers gave them a broad sense of belonging and inclusion; feel SWN is open to diverse ideas; and acknowledge that there is fair treatment in the workplace.

We are continuing to expand our recruitment efforts to be more representative of the areas where we operate and to support diversity in our talent pipeline. For example, we have enhanced our university recruiting to attract candidates from diverse backgrounds for internship positions, and we post internships on sites that attract candidates from underrepresented populations. (See the Recruitment & Onboarding section on **page 51** for more details about our internship program.) SWN also works to build and engage with the next generation of diverse talent through our support for science, technology, engineering and math (STEM) education programs for underrepresented populations in areas where we operate (see **page 64** for more information). In 2022, we began engaging with the Louisiana Military Affairs Council to support the military workforce transition programs.

Increasing transparency is an important element of the DE&I journey. To help assess and drive progress, and in response to shareholder feedback, we are disclosing our Equal Employment Opportunity (EEO-1) data as of December 31, 2022, in this report. Please refer to the Appendix on **page 109** for more information.
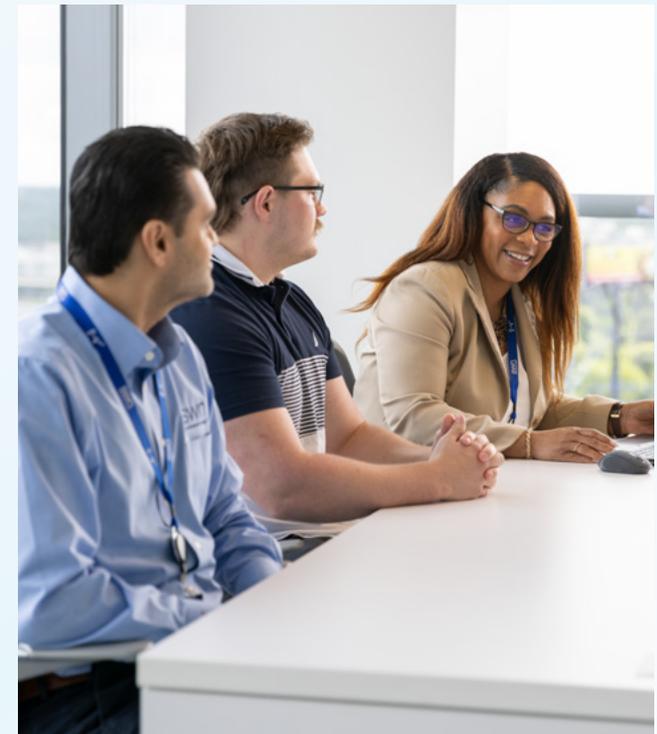
Pay Equity

We consider diversity, equity and inclusion to encompass how we treat people, as well as the opportunities we provide, which includes pay equity. In 2022, average women's salaries were 99%[*] of average men's salaries in the same job title.

Pay at SWN is based on several primary factors, including but not limited to:

- Performance
- Skills
- Years of experience
- Time in position
- Market data

Average women's salaries to average men's salaries in the same job title in 2022.

Our Policies

All SWN decisions regarding recruiting, hiring, training, evaluation, assignment, advancement and termination of employment are made without unlawful discrimination on the basis of race, color, national origin, ancestry, citizenship, sex, sexual orientation, gender identity or expression, religion, age, pregnancy, disability, military status or veteran status, genetic information, marital status or any other factor that the law protects from employment discrimination.

SWN's policies specifically state that the company will not tolerate any form of harassment, discrimination or retaliation in the workplace against any of its employees or contractors by anyone, including but not limited to officers, supervisors, employees and non-employees of SWN. Any form of harassment, discrimination or retaliation directed at any employee or non-employee of SWN is strictly prohibited as a matter of SWN company policy.

We ask every individual who is a victim of harassment, discrimination and/or retaliation in the SWN workplace to report such conduct immediately. All such reports and subsequent investigations will be handled in as confidential a manner as is reasonably possible, consistent with SWN's obligations under local, state and federal law, as well as any applicable company policies and internal procedures.

ONE Team Culture

SWN's success depends on the contractors who work alongside our employees every day. A vital part of our operating philosophy is fostering a true ONE Team culture in which everyone — whether employee or contractor — doing work for SWN is held to the same high standards and understands that our respective success depends on working together.

Building Collaboration

Ensuring that SWN contractors share our expectations and obligations is the essence of our ONE Team culture. To achieve our goals together, we focus on helping new contractors get up to speed through a variety of tools, training and resources (see Safety Training on **page 43**). We foster clear communication and collaboration through dedicated contractor onboarding, joint on-site meetings, and one-on-one SWN/contractor meetings throughout the year, to maintain clear expectations, foster collaboration and build shared accountability.

SWN's employees and contractors are empowered and encouraged to collaborate and give honest input on all issues related to and affecting their work, including operational and HSE issues. At all times, we reinforce our "See Something, Say Something" ethos, in which every individual performing work for SWN — regardless of role or status — is obliged to speak up regarding potentially unsafe conditions or behavior. Included in this effort is making sure every person performing work on any SWN site realizes that they are empowered to exercise stop-work authority at any time, if they see any safety or environmental risks. (See the Health & Safety section on **page 40.**)

In 2022, we focused on advancing the ONE Team culture through strengthening relationships with our partners. Beyond ensuring compliance, we work toward helping our partners develop, learn and grow.

Achieving a ONE Team Culture

These commitments provide the foundation for our corporate responsibility strategy and drive our performance on key environmental and zero-incident safety goals:

- Encourage open dialogue and sharing of concerns, ideas and best practices.
- Engage with contractors by establishing a shared vision.
- Promote continuous improvement with training, educational resources and useful tools.
- Enhance communication and collaboration to mutually engage with our employees and contractors.
- Commit to more frequent SWN and contractor leadership engagement with field personnel.

- Evaluate our progress and identify areas to improve, by facilitating ongoing SWN and contractor leadership discussions.
- Hold ourselves and our contractors accountable.
- Recognize, publicize and reward good ONE Team HSE performance.

Contractor Management

Our contractor management program starts with a rigorous screening and assessment, to ensure that SWN's contractors align with our model of "The Right People doing the Right Things." As part of our ONE Team culture, we hold contractors to our high standards and equip them with the tools and resources needed for success. We focus on building a culture for our employees and contractors based on open and honest communication, collaboration and shared accountability for results.

We require contractors to align with our Supplier Code of Conduct, which includes our standards for environmental impact, health and safety, nondiscrimination, ethics and fair labor practices.

SWN maintains stringent requirements and processes for selecting, training and evaluating contractors through a five-step process:

- Prequalification assessment of all contractors
- Project preparation
- Pre-job activity, including the Training Assurance Program
- Job oversight, including daily safety meetings
- Performance assessments

SWN uses a third-party analysis and management system to coordinate evaluation of contractors on HSE and other issues. As part of our HSE assurance process, we also perform our own assessments to hold contractors accountable for following the same expectations and standards to which we hold our employees. In 2022, we began review and verification (RAV) audits, through which we assess contractors' written programs and policies against actual performance. We also enhanced our systems for assessing contractors' compliance with our drug and alcohol requirements. All of these assessment and audit mechanisms help us identify gaps, and if needed, we work closely with contractors to help them improve.

In 2022, we expanded the contractor management team across all our divisions, enabling us to increase the number of audits and assessments we conduct, to ensure that contractors are maintaining our high standards.

One Home
Communities

SWN fully embraces our role as a good neighbor, proactively engaging with local leaders and community members where we work and live. We strive to make a positive, lasting impact on the local environment and through strengthening the local workforce, engaging with schools and community groups, supporting emergency responders, and meeting the unique needs of our local communities.

2022 KEY METRICS

$970M+
paid in local and state taxes[47] and payroll in our primary operating areas of Pennsylvania, Louisiana, West Virginia and Ohio over the past five years[48]

$3.8B+
paid in royalty interest payments over the past five years

$1.05M
contributed through charitable donations and corporate matches

Community Engagement

SWN's proactive approach to engaging with our stakeholders is led by our community relations professionals. This team is responsible for identifying and engaging with local officials, citizens, businesses, nonprofit organizations, emergency responders, landowners and mineral owners in each of SWN's operating areas.

At each stage of our operations and everywhere we work, we share information openly, seek community feedback and work to understand, anticipate and resolve community concerns. Beyond these core elements of our engagement process, we tailor our efforts to reflect the specific characteristics of each location.

As a first step in our engagement process, we assess potential impacts our operations might have on local communities. SWN's approach to community engagement is transparent, open, proactive and responsive. Our community relations teams work with local stakeholders to develop, assess and gather feedback to help us create responsive, sustainable community engagement plans. Across our operations, we help address community needs by investing in local workforce development, minimizing our impacts such as traffic and noise and supporting nonprofits that have positive impacts.

01
Identify stakeholders

02
Understand and respond to community needs and concerns

03
Proactively respond to community needs through operational processes and community investment approach

04
Ongoing engagement, communication, investment, and partnership

Protecting Cultural Resources & Engaging With Tribes

SWN's **Human Rights Policy** guides our approach to protecting historical, cultural and archaeological resources. This policy is consistent with international principles, including the United Nations' Universal Declaration of Human Rights. We screen for potential heritage sites when making development plans, and we engage Native American nations where our activities may impact their lands. If, during construction operations, we encounter an unexpected cultural resource, we immediately stop our operations and engage the appropriate agencies and historical resource specialists to work with us to proceed in the appropriate manner. We are not currently operating in areas with protected tribal sites. We previously acquired a parcel of property on which an Adena burial mound was located and are currently working to donate the property in West Virginia to the Osage Nation.

Respecting Indigenous Peoples

SWN is sensitive to the history, culture and customs of indigenous peoples in areas where it operates and, consistent with applicable law, is committed to consulting with appropriate representatives when its activities might affect culturally important areas. SWN strives to obtain free, prior and informed consent of indigenous communities, consistent with applicable law.

– SWN Human Rights Policy

Responding to Community Concerns

SWN's regional community relations teams lead our efforts to understand and address local community concerns, to help ensure issues are addressed proactively, effectively and efficiently. Road safety, traffic issues, road maintenance, noise and environmental impacts are some of the most common concerns raised about our operations. We work with communities to address these and other issues in a mutually beneficial way.

Always Listening

It is important to us that our stakeholders find it easy to reach us. At any time, community members and employees can anonymously report any operational, safety or community concern by calling 1-877-516-3496. We aim to follow up on all issues raised within 24 hours and will follow up when appropriate to provide updates. Our routing and tracking system for community feedback helps us monitor the effectiveness of our efforts, capture learnings, spot trends and proactively coordinate solutions.

ROAD SAFETY, TRAFFIC & ROAD MAINTENANCE

We recognize that our vehicles affect traffic and wear and tear on the roads surrounding our operations. To minimize inconvenience, we conduct road impact and modeling studies and develop operational plans to avoid disruptions for our neighbors. For example, we plan routes that are timed to avoid work and school traffic. We also use escort vehicles and flaggers in places with limited sight lines, limited communication, steep drop-offs, narrow, winding roadways and other hazards. SWN works to ensure that our drivers are properly trained, and we verify that safe practices are used on an ongoing basis (see).

SWN's Centralized Logistics Operations Center uses strategic planning tools to minimize the number of trucks and miles driven, through efficient routing. As a result, we avoid both high-traffic periods and bridges or roads not built for heavy truck traffic, in order to minimize traffic, road impacts and vehicle emissions.

SWN's pipeline system in Pennsylvania and West Virginia helps decrease the use of trucks for transporting fresh water within our own network, as well as with other operators nearby. In 2022, 97.8% of fresh water used in Appalachia was transported via pipeline.

We support road maintenance to help offset impacts of vehicles that are part of our business on local roads. We work with local road departments and in many cases, use our own equipment for maintenance. For example, in Haynesville, we conduct frequent and regular planning sessions with regional governing authorities, aligning our 12-month development plans with their road construction schedules. This enables both parties to appropriately plan and schedule necessary resources, logistics and road permits and conduct relevant stakeholder engagement and communications with our mutual community neighbors. In addition, SWN and the natural gas industry pay millions of dollars in state taxes, impact fees and maintenance fees every year. These funds are often used to restore and maintain highways and secondary roads.

We also use several different methods to reduce dust. All local residents and SWN personnel are encouraged to report areas in need of dust control through our 24-hour call center.

97.8% of fresh water carried by pipelines in Appalachia division in 2022

2M+ truckloads averted from using roads since 2015, due to use of water pipelines in Appalachia

In 2022, our Total Recordable Vehicle Incident Rate was 0.41, one of the lowest rates among American Exploration and Production Council (AXPC) peer companies.

COMPRESSOR NOISE

The compressors that pressurize natural gas for transport and production are key to SWN's operations – and they are noisy. We know that it is our responsibility to help mitigate these noise impacts on the communities where we operate. To address this issue, we conduct site-specific modeling for sound impact and employ fit-for-purpose noise abatement solutions as necessary. This systematic approach allows us to design our facilities in a way that better serves the surrounding community.

Some of the ways we control noise levels include:

- Locating compressors to minimize impacts on people and nature
- Conducting sound impact assessments to identify the need for mitigation
- Constructing buildings or walls around compressor equipment
- Operating nonstandard compressor exhaust systems with extra sound-reduction capabilities
- Using high-efficiency coolers with fans that run at slower speeds
- Installing larger piping to reduce gas velocity and reduce high-pitched sounds

ENVIRONMENTAL CONCERNS

The people who live in the communities where we live and work are interested in the impacts our operations may have on the environment, including water resources, air quality, land, parks and ecosystems. We have developed industry-leading programs to preserve and protect the quality of water resources (**page 35**), as well as to reduce air emissions (**page 16**). We also work to minimize our operational footprint and surface impacts, by preventing spills and protecting biodiversity (**page 37**).

Spotlight: Freshwater Neutral's Impact in Communities

Our Freshwater Neutral commitment (see **page 32**) is strategically focused on providing significant benefits in the communities where we operate. We invest in freshwater neutral projects that improve water quality, restore river systems, increase local biodiversity and expand recreational opportunities, contributing to the health and well-being of the people and communities where we live and work. Here are just a few examples of projects and impacts of our freshwater neutral projects across the country.

WEST VIRGINIA: MARTINKA COMPLEX REMEDIATION

Ecosystems and habitats along West Virginia's Tygart River, a drinking water source for thousands of West Virginians, were being degraded by the acid mine drainage from the long-closed Martinka Mine.

An underground mine pool and runoff from a refuse disposal site were at risk of overflowing facility barriers and spilling out. SWN funds the operation and maintenance of critical barriers to ensure that local communities have safe drinking water. The site is managed by the West Virginia Department of Environmental Protection, which took control of an existing treatment facility to prevent contaminated water from impacting the environment.

> The volumetric benefit of this project is 9.1 million barrels of fresh water per year.

ARKANSAS: ED GORDON WILDLIFE MANAGEMENT AREA

The Ed Gordon Point Remove Wildlife Management Area (WMA), located in Conway County, Arkansas, began as a hardwood forested wetland. The land was cleared for agriculture and protected by levees to prevent flooding. Now managed by the Arkansas Game and Fish Commission, it has been restored as a wetland conservation area.

SWN partnered with Ducks Unlimited and the Arkansas Game and Fish Commission to support improved water use efficiency within the WMA and expand the habitat for dabbling ducks. The project included renovating wetland areas to optimize water

depths, converting scrub-shrub to wetlands, updating the irrigation distribution system, and excavating a flume ditch to capture spring floodwater. The new infrastructure more efficiently distributes water to the wetlands and reduces dependency on other irrigation sources, Point Remove Creek and the Arkansas River.

> The project reduced the total volume of water needed annually to maintain wetland habitats for waterfowl.

PENNSYLVANIA: TAYLOR RUN DAM REMOVAL AND STREAM RESTORATION

Taylor Run, an important tributary of the Tioga River in northeast Pennsylvania, is a historical habitat for Eastern brook trout. Two dams, originally built in the 1800s to facilitate water intake for the City of Blossburg, fell into disrepair, causing significant sedimentation issues and preventing fish from moving among water habitats. The dams were further damaged by Hurricane Sandy in 2012.

SWN provided funding to support the dam removal and revegetation of the surrounding area. The project restored regular flow patterns to the river, restored connectivity between fragmented cold-water fishery habitats, and removed a sedimentation source. The volumetric benefit of this project is 2.8 million barrels per year.

> The project has prompted the resurgence of Eastern brook trout and reconnected aquatic habitats.

Before

After

Economic Impacts

SWN is committed to helping support the long-term economic stability of the communities where we operate. Our business delivers significant economic benefits to these communities through jobs, leases and royalties and taxes. We create jobs that offer higher-than-average wages and directly benefit local landowners through mineral leases and royalties. Taxes and impact funds we pay fund important government services, from schools to infrastructure improvements, and from emergency preparedness and public safety to affordable housing.

As neighbors in our communities, we also provide support through contributions to schools, nonprofits and community groups. For more on our contributions, please see Giving & Volunteering on **page 65**.

*Taxes include state income taxes, payroll withholding taxes, severance fees, property taxes, franchise taxes, and sales and use taxes. Sales and use tax amounts included in the tax totals are exclusive of refund and audit payments.

†Haynesville was not acquired by Southwestern Energy Company until 2021.

Appalachia
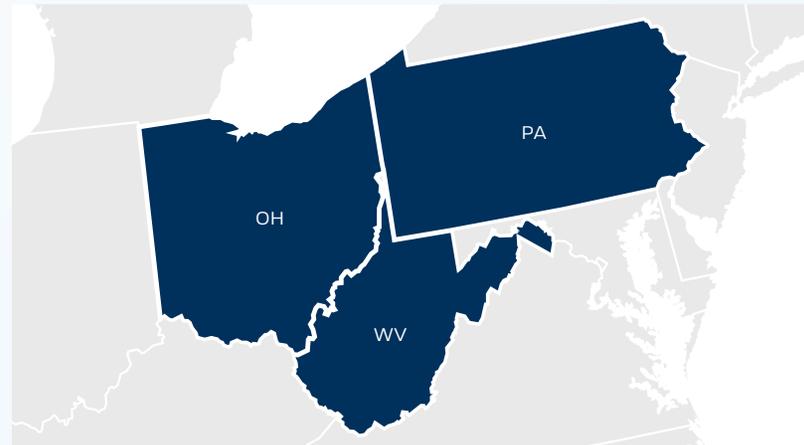
$545M

paid by SWN in state and local taxes* since 2018

$2.8B

paid by SWN in royalty interest payments since 2018

$260M

paid by SWN in total payroll since 2018

Haynesville†

$138M

paid by SWN in state and local taxes since 2021

$1B

paid by SWN in royalty interest payments since 2021

$27M

paid by SWN in total payroll since 2021

Developing a Local Workforce

We are committed to hiring locally and enhancing the local workforce by supporting programs that provide skills training and development opportunities across the communities where we live and work. These programs help SWN meet hiring needs for our own operations, while increasing the availability and skill level of talent across our communities and our industry.

SUPPORTING HIGHER EDUCATION IN PETROLEUM TECHNOLOGY

SWN has been investing in supporting and developing petroleum technology training programs in our primary operating areas for more than a decade. For example, we have been active supporters of Lackawanna College's School of Petroleum and Natural Gas in Pennsylvania since 2011. During that time, we have provided scholarship funds, donated equipment for instructors, served as guest lecturers and provided real-world field experiences on SWN sites. In 2022, we partnered with one of our suppliers, Costy's Energy Services, to fund more than $10,000 toward a natural gas apprenticeship focused on workforce development with the Laborers' International Union of North America. We also partner with and actively recruit new talent from both the West Virginia Northern Community and Technical College system and the Energy Land Management Program at West Virginia University.

SUPPORTING STEM EDUCATION

STEM workers are critical to SWN's operations, the local workforces where we operate, and the U.S. economy overall. We work with schools and nonprofits in our communities to support STEM education programs – with a particular emphasis on expanding opportunities to underserved populations. For example, through a partnership with the Independent Petroleum Association of America (IPAA), we are supporting a no-cost STEM education program for middle and high school students to learn about jobs in the oil and gas industry, as well as creating original content for a learning and development tool for IPAA members.

SWN supported the Bradford County Conservation District and the Susquehanna County Conservation District Student Envirothons. At these events, teams of high school students compete in field testing their knowledge in five topic areas: soils and land use, aquatic ecology, forestry, wildlife and environmental issues. The winning team from each county competes in a statewide championship.

MOBILE OILFIELD LEARNING UNIT

SWN joined five other oil and gas operators to develop the Appalachian Mobile Oilfield Learning Unit, a traveling educational exhibit. This project, built on our support of a similar, non-region-specific unit, includes hands-on activities covering important elements of oil and gas exploration and production that teach key math and science concepts. After a hiatus due to COVID-19, the unit traveled to 25 schools, and 3,226 students participated in 2022.

$283,500
contributed to support STEM education in 2022

> "LiUNA is pleased to partner with Southwestern Energy and the natural gas industry to build a workforce that can deliver energy to the people of Pennsylvania and beyond."
>
> Dave Horn, Laborers Local 158

Giving & Volunteering

We support our communities by partnering with local organizations to address unmet needs. In 2022, we restructured our giving strategy to focus on impacting four key areas:

Education
Developing a trained and skilled future workforce through STEM and business education programs.

Health & Well-being
Promoting healthy living and healthy communications.

Military & Emergency Responders
Providing support for our military and first responders and their families.

Families in Need
Supporting families in need as they overcome challenges and resume self-sufficiency.

This approach reflects local needs across our operations. Our efforts include company-funded charitable contributions, support for employee volunteerism and gift matching of employee donations. We aim to be truly involved in our communities and with key local organizations throughout the year. Our leaders are encouraged to engage and provide organizational support as board members or advisers, to make an impact beyond our donations.

In 2022, we announced that matching funds for employee donations to eligible charities will more than triple, from $15,000 per year to $50,000 per year beginning in 2023. We are also implementing an online tool to log employee volunteer hours. We recorded nearly 900 hours in 2022, and we expect that to increase as awareness of the tool expands. For a list of industry and local organizations supported by SWN, please see the **Corporate Governance** section of our website.

Social Energy: Powering Our Communities

Some examples of our community investment efforts in 2022 include:

1. SWN employees in Houston helped assemble bikes for CYCLE, a children's charity dedicated to literacy improvement that rewards students with new bicycles for achieving better academic performance.

2. SWN Haynesville employees volunteered at the Food Bank of Northwest Louisiana, which contributed food to the senior food pantry.

3. Energy, Environment, and Excitement! Summer Camp (E3), sponsored by West Virginia University's Energy Land Management Program, brings underrepresented minority youth to the campus for a one-week, fully immersive experience. SWN provides travel grants ensuring that the students and their families will not be burdened by out-of-pocket travel expenses and also provides volunteers for a day at the camp, giving students a chance to learn the how-to and importance of networking.

4. SWN employees volunteer their time to participate in the annual Pick Up Pennsylvania event in Susquehanna County. Pick Up Pennsylvania is a statewide event, where groups of Pennsylvanians take to the streets, parks and waterways to collect trash and clean up their environment.

$5.3M[49]
in total charitable giving since 2018

$1.5M
in matching gifts from SWN employees since 2018

$12.9M
contributed over the life of our Freshwater Neutral conservation initiative program to protect and restore waterways

Haynesville Highlight: Community Support Making an Impact

When we initially acquired the Haynesville assets, we took time to engage with stakeholders across the community to better understand their concerns and needs. Based on that listening process, we made significant investments in workforce development and STEM (science, technology, engineering and math) education, with a focus on expanding opportunities within underserved and diverse communities.

We made donations in support of education from kindergarten to career, including:

- $25,000 to the Community Foundation of North Louisiana, to expand a kindergarten readiness program in Bossier Parish.

- $10,000 per year, three-year commitment will provide the STEM and social science–focused Discovery Education Platform to elementary students attending DeSoto Parish schools.

- $100,000 per year, three-year commitment to support the Foundation for Louisiana's Community and Technical Colleges (LCTCS) to provide scholarships and workforce solutions for high school graduates, with a focus on expanding career development opportunities for underrepresented communities.

SWN also developed community partnerships to address food insecurity, including the Food Bank of Northwest Louisiana in Red River Parish. We are funding an ongoing backpack project that provides 60% to 70% of the elementary students with food, to keep them nourished over the weekends when they are away from school and the meals provided there.

One Standard
Governance

SWN is committed to providing the energy that powers our world today and tomorrow, safely, ethically, and sustainably. We take a strong and uncompromising approach to achieving our goal by maintaining the highest standards of corporate governance, ethics and integrity, corporate responsibility oversight, enterprise risk management, and cybersecurity.

2022 KEY METRICS

44%
of our Board Directors are diverse in gender, ethnicity or nationality

66%
of our Board Directors have experience in health, safety, environment and/or corporate responsibility

15%
of annual incentive compensation was linked to ESG goals including a GHG emissions metric

Corporate Governance

Strong corporate governance is what enables us to create value for our shareholders, act as good environmental stewards, provide a safe and healthy workplace, and become respected members of the communities in which we operate. Executive leadership, led by the CEO, is responsible for running the company's operations, under the oversight of the Board of Directors.

Board Committees

Our Board includes the following committees, which are composed entirely of independent directors:

- Audit Committee
- Compensation Committee
- Nominating & Governance Committee
- Health, Safety, Environment and Corporate Responsibility (HSE&CR) Committee

See Corporate Responsibility Oversight & Enterprise Risk Management on .

Board Diversity & Tenure

As we address the challenges of increased global complexity and volatility, we recognize the importance of ensuring the right mix of directors with the appropriate balance of skills, tenure, perspectives and backgrounds to meet these challenges. Diversity remains a key commitment at SWN, with the Board's diversity in 2022 at 44% (2 women, 1 Native American and 1 French national). The average tenure in 2022 of our Board members was 7.3 years, which we believe helps ensure fresh thinking and new perspectives. Recently, the Board amended the company's Corporate Governance Guidelines to clarify that the Nominating & Governance Committee, as part of the search process for each new director, will actively seek out women and minority candidates to include in the pool from which Board nominees are chosen. Additionally, in 2023, we increased the Board diversity to 50% by adding Shameek Konar as a new director. Mr. Konar is of Indian descent.

44% Diversity

- Ms. Kehr and Ms. Taylor are female
- Mr. Marshall is a member of the Choctaw Nation of Oklahoma
- Mr. Prevost is a French national

Average Tenure

7.3 Years

1-4 Years   5-7 Years   8+ Years

Independence

8 of 9 director nominees have been determined by our Board to be independent, under the standards set forth in the Securities and Exchange Commission ("SEC") rules, the Corporate Governance Rules of the New York Stock Exchange ("NYSE") and the company's corporate governance policies.

Board Skills & Expertise

All of our directors possess critical skills and backgrounds that bring important perspectives to the Board and help us reach our goal of creating long-term, sustainable value for our stakeholders, customers, employees and communities. In 2022, in alignment with SWN's long-term strategic plan, we engaged in a deliberate and measured process to add to the skills and expertise of our Board. Some of these skills include corporate strategy formation and analysis; mergers and acquisitions negotiation, evaluation and integration; and governance experience.

For additional information regarding our Board's skills please see **page 11** of our 2023 proxy statement.

Corporate Governance Principles & Best Practices

The Board of Directors has adopted corporate governance principles that serve as the framework of the Board and its committees. From time to time, the Board revises its corporate governance policies in response to changing regulatory requirements, evolving best practices and the perspective of our shareholders and other stakeholders.

The independent directors are required to meet in executive sessions as appropriate matters for their consideration arise, no less than once a year, and historically they have participated in every scheduled meeting. The Board is elected annually by SWN shareholders. For additional information regarding our Corporate Governance Best Practices, please see **page 5** of our 2023 proxy statement.

2022 BOARD MEETING ATTENDANCE

The company's Corporate Governance Guidelines state that directors are expected to attend all or substantially all Board meetings and meetings of the committees of the Board on which they serve and to attend the Annual Meeting. During 2022, our Board met 8 times (5 regular and 3 special meetings), and our committees met a combined 15 times. All Board and committee meetings had 100% meeting attendance.

COMMUNICATING WITH THE BOARD

Our Board and the company are committed to an environment where open, honest communication is the expectation, not the exception. The Board is steadfast in performing its responsibilities with honesty, accountability and transparency, and welcomes comments or concerns from our stakeholders. The Board may be contacted, anonymously or confidentially, through any of the following avenues:

- Direct communication with our Corporate Secretary or Investor Relations

- The SWN confidential website at https://www.swn.ethicspoint.com/

- The SWN confidential hotline number at 877-516-3496

- Written correspondence to the Board in care of the Corporate Secretary at P.O. Box 12359, Spring, Texas 77391-2359

Stakeholder Engagement

We focus our sustainability priorities and disclosures on the issues that are most important to our stakeholders. To identify these priorities, we engage internal and external stakeholders and weigh their views with respect to both SWN-specific activities and energy development practices in general. In addition to these efforts, management engages with shareholders and potential shareholders through targeted outreach, and participation in various conference and industry events.

For additional information regarding our shareholder engagement, please see **page 8** of our 2023 proxy statement.

Director & Executive Compensation

Our executive and non-employee director compensation programs emphasize equity-based awards and performance-based cash incentives, which we believe are strongly aligned with our stakeholders' interests.

We reviewed director compensation in 2022, benchmarking the company against peer companies based on input from an independent compensation consultant, to approve target compensation for the executive officers by setting base salaries and long-term and annual incentive targets.

In 2022, 15% of annual incentive compensation was tied to ESG metrics, including reducing methane intensity by 10% year over year. Spill prevention and safety performance are also tied to employee compensation and bonuses.

2022 Compensation Updates

- Increased the weighting of performance awards for the 2023 long-term incentive awards to 55%.

- Approved an earned bonus outcome of 130% of target for the entire organization.

- Increased the Long-Term Incentives grant date value.

For more detail on our compensation practices, see our **2023 Proxy Statement**.

Ethics & Integrity

Our company has earned a strong reputation for ethical behavior and fair dealing by conducting our business and building shareholder value with integrity and according to the highest ethical standards.

SWN's General Counsel, who is also our Chief Compliance Officer, oversees issues relating to ethics and nonoperational compliance. The Chief Financial Officer oversees Internal Audit Services, which is responsible for reviewing internal compliance with our ethics standards.

To ensure that our employees and Board members conduct their work in an ethical manner and meet applicable laws and regulations, we have established detailed Business Conduct Guidelines that cover topics including conflicts of interest, human rights, sexual harassment, cybersecurity, bribery and corruption, antitrust matters, political matters and insider trading. New employees are required to certify that they have read and understand the guidelines.

All employees and contingent workers are required to participate in interactive, web-based training courses on our Business Conduct

Guidelines annually. This training includes tests on team members' understanding of our ethics requirements. If questions are missed, the course provides additional content to help ensure employees understand those key topics.

SWN's ethics hotline enables employees to anonymously submit issues or concerns. All complaints received are forwarded to both Internal Audit and our Chief Compliance Officer, and an investigation is led in the relevant department. The Audit Committee receives a summary of all complaints. Our Internal Audit group also assesses compliance with ethics requirements across departments on a regular basis. In 2022, we received 46 complaints through this hotline, all of which were assessed and resolved.

In 2022, 100% of all employees and full-time contingent workers completed the required ethics training courses.

Public Policy Engagement

SWN's senior executives, along with our Regulatory team and Government Affairs team, manage the company's engagement in the legislative and regulatory process. We work proactively with policymakers and other stakeholders to craft recommendations for laws and regulations that align with our high standards for responsible operations and that will be effective and workable in practice.

In 2022, we worked proactively with industry partners and policymakers to sustain and enhance methane regulations, so that regulatory agencies can monitor our industry and better protect the environment. We also work in local communities on regulatory issues. For example, when we began operating in Haynesville, we found that local regulations prohibited the reuse of produced water, one of the most important ways we conserve freshwater resources. We immediately began working with local authorities to encourage them to update these regulations and set about demonstrating the safety and water conservation benefits of our approach. An approved pilot project in 2022 successfully showed how reuse could work locally. We successfully worked with local regulators to update regulations, to allow us to further increase water recycling.

We also play a leadership role in trade associations to advance positions aligned with our standards for environmental and social performance. SWN is a founding member of the ONE Future Coalition, which developed the methane-reduction approach that has been endorsed by the U.S. Environmental Protection Agency (EPA) and is now a component of its Natural Gas STAR Methane Challenge. We also find other ways to catalyze change across our industry and in the world. For example, SWN has voluntarily participated in several scientific studies with regulatory agencies, academia and NGOs that have informed science-based solutions.

In 2022, SWN did not make corporate contributions to tax-exempt 527 and 501(c)(4) organizations, state or local ballot initiative committees, individual candidates or political committees supporting candidates in federal, state or local elections. We do not currently have a political action committee. To communicate our views on legislative and regulatory matters affecting our operations and industry, we primarily engage in the legislative and regulatory processes through various trade associations. We pay regular membership dues to several trade associations that are organized under Section 501(c)(6) of the Internal Revenue Code. For such

organizations, to which our annual membership dues total more than $25,000, SWN annually inquires and makes reasonable efforts to obtain information on what portions of our membership dues may be used for lobbying activities. Below is a list of SWN's 2022 trade association memberships whose annual trade association dues were more than $25,000. The table reflects the amount of the annual dues paid by SWN to Section 501(c)(6) U.S.-based trade associations that are used for lobbying activities and considered nondeductible by the IRS. For additional information regarding our political activities and trade associations, please see the **Corporate Governance** section of our website.

TRADE ASSOCIATION NAME	AMOUNT OF ANNUAL DUES USED FOR LOBBYING ACTIVITIES
American Exploration & Production Council (AXPC)	$ 122,500
American Petroleum Institute (API)	$1,732,114
Independent Oil & Gas Association of West Virginia (IOGA-WV)	$0
Independent Petroleum Association of America (IPAA)	$31,500
Louisiana Association of Business and Industry (LABI)	$12,000
Marcellus Shale Coalition	$10,750
National Petroleum Council	$2,247
Ohio Chamber of Commerce	$7,500
Ohio Oil & Gas Association	$10,000

Corporate Responsibility Oversight & Enterprise Risk Management

Accountability for our commitment to corporate responsibility begins at the highest level of the company. Each standing committee of the Board, composed entirely of independent directors, oversees and evaluates corporate responsibility issues, risks and opportunities directly in its sphere, according to the following topics:

- The **Nominating and Governance Committee** reviews corporate governance matters, company culture, matters involving members of the Board and succession planning.
- The **Compensation Committee** reviews executive and employee compensation, human capital management and post-employment benefit plans.
- The **Audit Committee** assesses financial matters, cybersecurity and overall risks to the enterprise.
- The **Health, Safety, Environment & Corporate Responsibility Committee** meets at least quarterly and specifically oversees and discusses key ESG trends and issues, including climate change, water resources, workforce safety and community concerns, as well as assessing health, safety and environmental risks and public policy matters.

In addition, the **ESG Steering Committee**, composed of cross-functional senior executives and managers, which reports directly to the company's executive leadership team ("ELT"), is tasked with:

- Advancing the company's ESG strategy and performance by recommending policies and practices to the ELT.
- Assessing current and emerging ESG matters that may impact the company, its business, operations or performance, or are otherwise pertinent to the company and its stakeholders, and bringing these to the attention of the ELT as relevant.
- Increasing transparency on ESG topics and performance and responding to stakeholder feedback.

Enterprise Risk Management

The scale, scope, and complexity of SWN's business raises a multitude of interdependent risks, which can vary over time.

A primary responsibility of SWN's Board of Directors and ELT is to ensure that processes are in place to identify, prioritize, assess and properly manage these risks. This includes risks and opportunities associated with climate change and other ESG-related topics (see for more on our approach to climate-related risks and opportunities). The chart to the right illustrates how the Board and management oversee risks:

We follow a rigorous process to identify, measure, monitor and manage enterprise-level risk. Our ERM process incorporates personnel from different functions, levels and operating regions to support a high level of visibility and accountability throughout the company and to incorporate multiple vantage points on risks and potential mitigations. Our Chief Financial Officer leads and oversees the ERM process with input from other ELT members and cross-functional leaders. Each identified risk is assigned to at least one ELT member and at least one other cross-functional leader, who are then responsible for ongoing tracking of risk drivers and mitigations.

Our ERM process informs decision-making across the company, including acquisitions, investments and capital expenditures. We evaluate, identify and categorize risks based on a likely time frame, defining near-term risks as within 6 months, medium-term risks as 6 months to 2 years, and longer-term risks as 3 to 5 years.

The ERM team meets at least quarterly to discuss and rate key risks based on their potential impact – which we define and rate based on possible financial, reputational, safety and other impacts – as well as their likelihood and velocity, and to discuss mitigation strategies. This includes reassessing previously identified risks and identifying new and emerging risks, as well as the associated mitigants. For example, third-party delivery has been identified as a top risk that merits heightened scrutiny.

The results of our ERM process are communicated to the Board at least annually. The Board's Audit Committee also meets independently with the company's external accounting and reserves auditors and the head of Internal Audit, to discuss risks in financial reporting and other matters.

BOARD OF DIRECTORS / Oversees Major Risks

- Commodity prices and hedging
- Financial strength and flexibility
- Cybersecurity
- Reserves and resource development
- Third-party performance/exposure
- Health, safety and environment
- Talent development, retention and compensation
- Regulatory matters and social license
- Systems integrity
- Asset integrity

AUDIT COMMITTEE

Primary Risk Oversight
- Financial statements and reporting
- Enterprise risk management program
- Related party transactions
- Cybersecurity

COMPENSATION COMMITTEE

Primary Risk Oversight
- Human capital management
- Executive and employee compensation
- Incentive plans
- Post-employment benefit plans

NOMINATING & GOVERNANCE COMMITTEE

Primary Risk Oversight
- Company culture
- Board structure
- Corporate governance
- Succession planning

HSE & CR COMMITTEE

Primary Risk Oversight
- ESG trends and issues
- Political and public policy matters
- Health, safety, and environmental risks
- Compliance assurance

MANAGEMENT

- Meets quarterly
- Discusses developments to identified risks
- Identifies emerging risks
- Develops mitigation measures
- Updates the Board and committees on risk assessments

CYBERSECURITY

Rapidly evolving cyber techniques and increased threats against energy and critical infrastructure have raised the level of risk across the industry in recent years. Greater use of technology and digitization in operations has delivered concrete benefits to our business, while also opening the industry to new vulnerabilities in corporate and operational systems. The energy industry remains subject to evolving threats and actors, including criminals, terrorists, nation states and insiders.

Cybersecurity is recognized as a top enterprise risk, and is overseen by our Vice President of Business Information Systems, as well as the Audit Committee of the Board of Directors. The Audit Committee receives quarterly cybersecurity reports and conducts at least two in-depth cybersecurity discussions annually.

Protection of SWN's informational assets is managed by a comprehensive, multilayer strategy modeled on the National Institute of Standards and Technology (NIST) cybersecurity framework, and combines technology, services, policies and user education to mitigate cyber risks. We have instituted Acceptable Use, Information Security and Vendor Risk policies and procedures, which are key to our cyber defense and our efforts to protect employees and contractors, while ensuring that we partner with responsible vendors who also invest in effective cybersecurity practices. In addition, cybersecurity is integrated across our company, through proactively updating our systems.

SWN conducts regular, proactive cybersecurity vulnerability assessments to identify opportunities for improvement and reduce exposure to cyberattacks. We also conduct regular internal and external audits. We participate in industry organizations and engage third-party service providers to help us monitor the latest cyber threats.

In addition, we participate in the Department of Homeland Security's Cyber Resilience Review (CRR), a voluntary, nontechnical assessment to evaluate an organization's operational resilience and cybersecurity practices. The CRR assesses enterprise programs and practices across a range of 10 domains, including risk management, incident management and service continuity. Based on our own internal risk assessments, we have highlighted additional action plans to execute moving forward, including conducting additional simulations of cyber incidents, retaining a third-party cybersecurity education vendor and redesigning the Operational Technology and Supervisory Control and Data Acquisition (SCADA) environment to incorporate updated security capabilities.

Our employees periodically participate in cybersecurity awareness campaigns, tests and training.

In 2022, we increased online training for all our workers to safeguard the company and its assets, and to bring more security awareness into their professional and personal lives. Select employees also participate in annual cybersecurity tabletop exercises to ensure key stakeholders are familiar with our cyber defenses and response plans.
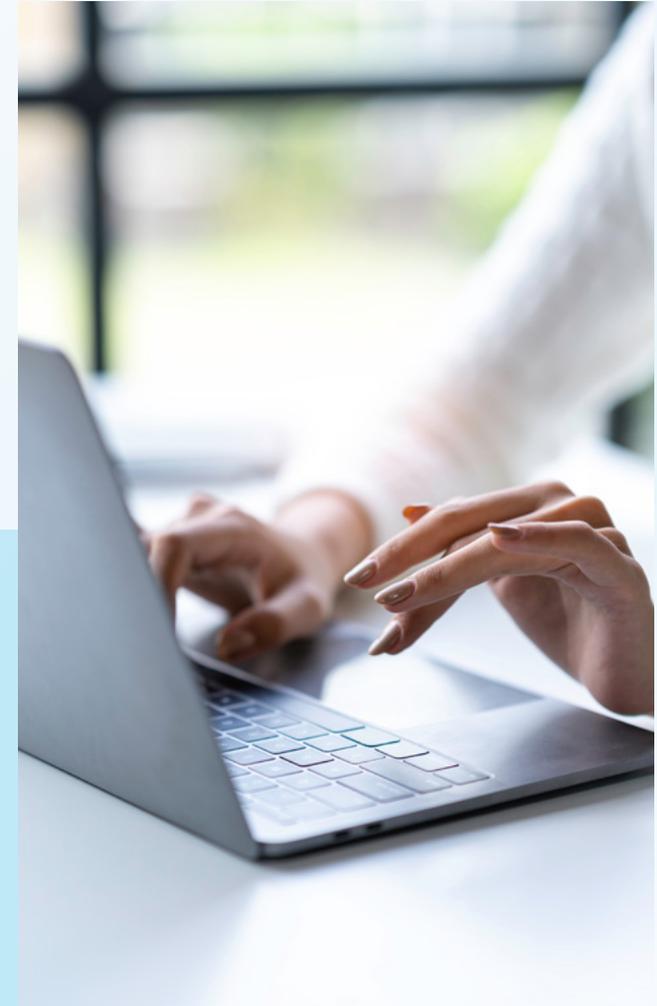
ESG Policies & Documents

SWN has adopted specific policies that underpin our governance of and performance on key ESG issues, including the following:

ESG-SPECIFIC POLICIES & GOVERNANCE DOCUMENTS

Human Rights Policy

Formalizes and enhances our existing policies and commitments for labor rights – including human trafficking and slavery, community and stakeholder engagement, and protection of health, safety and the environment – in alignment with international principles including the Universal Declaration of Human Rights.

Health, Safety and Environmental Policy

Creates accountability for management and every employee to operate our business in ways that mitigate impacts on risks to people, safety, health and the environment.

Anti-Corruption Compliance Policy

Requires us to conduct our business with integrity, selecting personnel, vendors, agents and consultants in a manner that ensures we have the Right People doing the Right Things.

Equal Opportunity Policy

Recognizes the personal value of every employee, formalizes our belief that every person should be treated fairly and with respect, and clarifies that every employment-related decision should be based on an individual's merits and qualifications for a particular job, including capability, performance and reflection of our corporate mission and values.

Harassment and Discrimination Policy

Outlines the definitions of harassment, discrimination and retaliation in the workplace, and prohibits any form of these, directed at any SWN employee.

Business Conduct Guidelines

Articulates SWN's guidelines of conduct, which include building shareholder value with integrity and character, according to the highest ethical standards and values that recognize the dignity and worth of all individuals; a commitment to excellence in performance; and courage of convictions and actions.

Section 406 Code of Ethics

Requires each company registered with the Securities and Exchange Commission to disclose whether it has adopted a code of ethics for senior financial officers. Our company's 406 Officers are bound by this code, which sets forth the company's requirements with respect to ethical conduct, conflicts of interest and compliance with applicable laws.

ADDITIONAL GOVERNANCE DOCUMENTS AND RESOURCES

Certificate of Incorporation

Bylaws

Audit Committee Charter

Compensation Committee Charter

Nominating & Governance Committee Charter

HSE&CR Committee Charter

Corporate Governance Guidelines

Confidential Complaint Procedures for Questionable Accounting Practices

Procedures for Contacting the Board

See the **Corporate Governance** section of our website and our **2023 Proxy Statement** for more information on our approach to corporate governance.

Health, Safety & Environmental Management

HSE POLICY & MANAGEMENT SYSTEM

SWN's Health, Safety & Environmental (HSE) Policy underscores our commitment to protecting employees, contractors, communities and the environment in all areas where we conduct business. Every SWN employee is responsible for the implementation of this policy, to help achieve our ONE Team goal of zero incidents.

Our policy commitments are supported by SWN's comprehensive HSE management system, which covers all SWN operating regions and divisions. The management system has integrated policies, programs, procedures, training and incentives to support HSE and regulatory performance. It provides clear guidance on actions and processes for protecting health, safety and the environment and maintaining asset integrity. The management system requires recurring goal setting, evaluation processes and performance metrics to drive improvements. It also requires regular audits of our own and contractors' operations, as well as the implementation of corrective actions when relevant, to ensure compliance with SWN requirements and relevant external regulations. (See Health & Safety section on **page 40.**)

BOARD & EXECUTIVE OVERSIGHT OF HSE

Accountability for HSE management starts at the highest level of the company. The Board of Directors provides oversight and risk management for HSE issues through its HSE&CR Committee. This committee — which meets at least quarterly to address issues related to climate change and emissions, water resources, workforce safety and community concerns — holds senior management accountable for the company's HSE performance and assists the full Board in delegating its HSE-related responsibilities.

Our HSE Area Manager, who reports to our Chief Operating Officer, directly manages HSE issues and reports to the Board. The HSE Area Manager is a member of the ESG Steering Committee, which advises the ELT on ESG issues and strategy. In addition, the HSE Area Manager meets with the Board of Directors' HSE&CR Committee members during the quarterly committee meeting, which includes a review of HSE performance metrics, trends and significant incidents, including investigative findings and corrective actions.

The HSE Area Manager oversees SWN's dedicated HSE and Regulatory teams, which are also responsible for developing and implementing effective policies and programs, monitoring compliance, and implementing the appropriate tools and training related to employee and contractor HSE and regulatory issues. We also have specialized managers and teams for air emissions, water, spills, waste and other environmental issues; regulatory; safety; and field operations.

EXECUTIVE & EMPLOYEE ENGAGEMENT & ACCOUNTABILITY FOR HSE

All SWN leaders — from senior executives to frontline managers — are evaluated on, and held accountable for, the HSER performance of their respective teams. We measure leadership engagement in HSE using a balanced scorecard, which includes targets and data on both leading indicators (e.g., management, employee and contractor participation) and lagging indicators (e.g., Total Recordable Incident Rate, audits, risk assessments and more). In 2022, we refined the balanced scorecards to encourage participation of managers and employees across the organization.

To drive accountability and performance improvements, HSE metrics represent 15% of the annual bonus plan and include total recordable injury rate (TRIR), total produced fluids spill rate (TPFSR) and methane emissions intensity (MEI). TRIR encourages safe operations and a healthy work environment by promoting an injury-free workplace, to protect the company's employees and contractors. TPFSR and MEI reflect the company's commitment to environmental stewardship and sustainability, by reducing a key greenhouse gas and preventing environmental hazards.

HSER employees are embedded within each operating division to support day-to-day HSER activities at the site level and ensure that all employees comply with applicable safety and environmental standards, as well as identifying hazards and mitigate risks. We actively engage our third-party contractors in HSE management and require them to meet our HSE standards.

HSE performance is not the sole responsibility of dedicated HSER managers; every SWN employee and contractor is accountable for safety, and HSER managers ensure they have the tools they need to contribute to a safe work environment. To this end, we provide regular training on both environmental and safety procedures and standards, as relevant for employees' jobs.

HSE AUDITS

We conduct regular internal and third-party safety and environmental audits of our own and contractors' operations to assess compliance with SWN requirements and relevant external regulations. In our Appalachian regions, external third-party state regulators undertake regular environmental and safety audits of issues including emissions, well integrity and well pad surface conditions. In addition to these outside audits, we also conduct regular internal environmental audits of operational sites, to assess environmental and safety performance and compliance with internal and external processes and standards. We develop corrective actions and lessons learned based on these assessments, assign responsibility for the implementation of corrective actions to relevant employees and track actions through completion. We conduct audits across all our operations. We have undertaken a wide range of additional internal environmental and safety assessments of our recently acquired Haynesville assets as part of the integration process, and will roll these into our regular ongoing audit process.

Endnotes

1   Data provided for the year 2020 includes data associated with the acquisition of Montage Resources in November 2020. Data provided for the year 2021 includes data associated with the acquisition of Indigo Natural Resources and GEP Haynesville in 2021.

2   This report includes 2022 data as well as prior years' data. Unless otherwise noted, the data covers all of SWN's assets and operations owned that particular year.

3   See the relevant subpages of this data section for notes to the data and explanations of restatements. Volume recycled includes SWN reuse of SWN produced water, SWN reuse of produced water from other operators and reuse of SWN produced water by other operators.

4   As of December 31 for the respective year.

5   The volume recycled includes SWN reuse of SWN produced water and SWN reuse of produced water from other operators. It does not include reuse of SWN produced water by other operators.

6   The total flowback and produced water percentage recycled from 2020 to 2022 decreased, due to restrictions that inhibit or prevent recycling in certain operating areas. Additionally, when SWN acquired Indigo in September 2021, no infrastructure or procedures were in place to promote recycling of water. As such, no water was recycled in our Haynesville operations in 2021 or 2022, but SWN is working to increase recycling in our Haynesville operations.

7   The metric used to calculate the intensity ratio is millions of standard cubic feet (MMscf) of gas. We assumed a 1,000 British thermal units (BTUs)/scf heating value of natural gas for emissions intensity. The GHG emissions included in the intensity ratio are all direct (Scope 1).

8   Methane intensity or methane leak/loss rate (mass percentage) is calculated by dividing the gigagrams of methane emissions by the oil and gas gross production (cubic feet converted to gigagrams). A gigagram is equivalent to a thousand metric tons.

9   SWN's methane intensity and GHG intensity increased in 2020, primarily due to the acquisition of assets with higher rates than SWN's legacy assets. However, we were able to reduce methane and GHG emissions to our historical low levels by quickly integrating the acquired assets into our rigorous methane-emissions reduction programs.

10   The water use, water recycling and water disposal data in this section cover our drilling, completions, production and midstream services. Totals in the tables may not be exact, due to rounding.

11   Water data collection depends on records maintained for internal benchmarking or reporting to regulatory agencies. Volumes purchased from commercial, third-party water suppliers are included under "water utilities," unless it is known that the supplier is withdrawing water directly from a source specifically for use in oil and gas operations and not for human consumption as a utility. "Surface water" can include natural ponds, lakes, rivers and freshwater impoundments. No water was pulled from isolated wetlands or oceans for the years in scope.

12   These volumes include flowback and produced water, encountered water during drilling and rainwater naturally captured in facility containments. Additionally, reuse water as calculated contains drilling water reused, SWN's reuse of SWN-produced water and reuse of produced water from other operators.

13   The use of SWN-produced water by other operators was not included in the total volume that is recycled or reused downhole.

14   The percentage includes flowback and produced water provided from other operators to SWN and used in SWN's hydraulic fracturing operations. SWN-produced water provided to other operators for reuse is not included in the percentage.

15   This percentage includes the volume of water reused by SWN that SWN generates and the volume of water generated by other operators that is reused by SWN.

16   SWN-produced water provided to other operators for reuse is not included in the percentage.

17   The total flowback and produced-water percentage recycled from 2020 to 2022 dropped, due to regulatory restrictions that inhibit or prevent recycling in certain operating areas. Additionally, when SWN acquired Indigo in September 2021, no infrastructure nor procedures were in place to promote recycling of water. As a result, no water was recycled in our Haynesville operations in 2021 or 2022. SWN worked diligently to increase recycling in our Haynesville operations in 2022 and has continued those efforts into 2023.

18   Conservation and operational offsets are from all basins. Operational offsets include rainwater naturally captured in facility containment that is returned to the environment, and surface water held in freshwater impoundments that is returned to the environment.

19   A Tier 1 spill is an unintentional release of a regulated or prohibited substance impacting a state/federal jurisdictional water body, or an unintentional release of a regulated substance at or above its federal reportable quantity. A Tier 2 spill is an unintentional release of a regulated or prohibited substance impacting land off location.

20   The emissions intensity and leak/loss rate data are based on gross operated production. The GHG calculations – reported in carbon dioxide equivalents (CO_2e) – include CO_2, methane (CH_4) and nitrous oxide (N_2O). Certain GHG emissions are based on Environmental Protection Agency (EPA) emissions factors. The production CO_2e emissions reflect emissions reported to the EPA under Subpart W of the Greenhouse Gas Mandatory Reporting Rule (GHGMRR). Approximately 99% of our production and midstream operations are subject to reporting under Subpart W. In accordance with EPA greenhouse gas reporting requirements, the legacy Montage Resources assets acquired in 2020 are reported for the entire year, not the portion of the year that the assets were owned by SWN. For 2020, the greenhouse gas intensity and methane leak/loss rate for legacy Montage assets were greater than SWN legacy assets. Following the close of the acquisition, SWN identified and began implementing emissions-reduction initiatives on legacy Montage assets.

21   The metric used to calculate the intensity ratio is MMscf of gas. We assumed a 1,000 BTU/scf heating value of natural gas for emissions intensity. The GHG emissions included in the intensity ratio are all direct (Scope 1).

22   The methane intensity (methane leak/loss rate) is calculated by dividing the mass of methane emissions by the mass of gross methane production.

23   In calendar year 2021, SWN acquired Indigo Resources and GEP, with producing wells in Louisiana. In accordance with EPA greenhouse gas reporting requirements, the properties acquired were included in the calculation for the entire year of 2021.

24   SWN's methane intensity was higher in 2020 primarily due to the acquisition of assets with higher methane leak loss rates than SWN's legacy assets. However, we were able to reduce methane emissions to our historical low levels by quickly integrating the acquired assets into our rigorous methane-emissions reduction programs.

25   The gigagrams of methane emitted reflect the Subpart W reported emissions revised (reduced) to reflect actual fugitive equipment leaks observed as a result of our leak detection and repair program.

26   SWN's methane intensity increased in 2021, primarily due to the acquisition of assets with higher methane leak/loss rates than SWN's legacy assets. However, we were able to reduce methane emissions to our historically low levels by quickly integrating the acquired assets into our rigorous methane-emissions reduction programs.

27   Charitable donations for 2020 have been updated from prior reported values, based upon review of data calculations from the 2021 survey.

28   These metrics are standard for our industry and reported voluntarily to the American Exploration and Production Council each year as part of its annual safety benchmarking survey. All rates are based on 100 employees working 200,000 hours (full-time for one year) according to OSHA standard methodology (see **U.S. Bureau of Labor Statistics**) – except for the Recordable Vehicle Incident Rate, which measures total preventable vehicle incidents multiplied by 1 million and divided by total mileage.

29   The DART Incident Rate measures the total number of OSHA "Days Away From Work" incidents plus the "Days of Restricted Duty or Transfer" incidents times 200,000, divided by number of employee hours.

30   We consider vehicle incidents recordable if the driver did not exercise every reasonable effort to prevent an incident that results in medical treatment beyond first aid or vehicle/property damage of $500 or more associated with the event.

31   All data as of year-end.

32   The definition of "management" is based on U.S. Equal Opportunity Office categories Executive/Senior Level Officials and Managers and First/Mid-Level Officials and Managers.

33   For more information on ONE Future and the target-setting process, please see: **ONE Future**.

34   The methane intensity (methane leak/loss rate) is calculated by dividing the mass of methane emissions by the mass of gross methane production, in accordance with the ONE Future December 2021 Protocol.

35   All leaks are ultimately repaired. However, less than 1% of leaks in 2022 were identified for delayed repair, in accordance with regulation to prevent excess emissions greater than the leak rate, due to blowdowns, as a result of immediate repair.

36   Source: Technical Supplement: The Use of Scenario Analysis in Disclosure of Climate-Related Risks and Opportunities, Task Force on Climate-Related Financial Disclosures.

37   This includes proved developed producing reserves as defined by the SEC.

38   Water use as shown here does not represent a closed system. Recycled and disposal volumes include rainfall inadvertently captured within production equipment and secondary containment. This water is collected and managed with produced water. Volumes shown may also be affected by storage and operational timing.

39   This percentage includes the volume of water reused by SWN that SWN generates and the volume of water generated by other operators that is reused by SWN. In 2020, 2021 and 2022, SWN-produced water provided to other operators for reuse is not included in the percentage.

40   Casing is hollow steel pipe. **See a video** that details our horizontal drilling and fracturing practices and how we seek to ensure wellbore integrity.

41   "No problem" includes situations where the complaint is only due to aesthetics (e.g., naturally occurring iron or manganese).

42   Naturally occurring bacteria in water wells is common in our areas of operation.

43   Naturally occurring stray gas or methane is common throughout our operational areas and can affect groundwater. The term "stray gas" is used herein with no distinction between biogenic or thermogenic.

44   "Mechanical" refers to a mechanical or equipment problem with the given water well (e.g., a broken pump).

45   The "miscellaneous" classification as used herein encompasses any claim not falling within another claim classification (e.g., brine contamination and diminution).

46   A Tier 1 spill is an unintentional release of a regulated or prohibited substance impacting a state/federal jurisdictional water body, or an unintentional release of a regulated substance at or above its federal reportable quantity. A Tier 2 spill is an unintentional release of a regulated or prohibited substance impacting land off location.

47   "Taxes" include state income taxes, payroll withholding taxes, severance fees, maintenance fees, property taxes, franchise taxes, and sales and use taxes. Sales and use tax amounts included in the tax totals are exclusive of refund and audit payments.

48   Haynesville data is included where available from September 1, 2021, to December 31, 2022.

49   Charitable contributions do not include industry association fees or political contributions.

Appendix 2022-23

SWN recognizes that strong corporate governance plays an important part in achieving our objective of enhancing the company's long-term value for our shareholders. This includes maintaining best practices and transparency, including with regard to this Corporate Responsibility Report. Our report leverages leading frameworks while also highlighting innovative efforts undertaken by SWN that are unique to the company, which we view as a key part of delivering our strategy.

This document indexes the content of the 2022-23 Corporate Responsibility Report, SWN's website and policies, and other publications to several important reporting frameworks and standards relevant for our industry and highlights our key issues.

GRI Content Index

The GRI Standards provide a globally recognized framework for companies to measure and communicate their environmental, economic, social and governance performance. We prepared this report in accordance with the GRI Standards including the updated GRI 1: Foundation 2021, GRI 2: General Disclosures 2021 and GRI 3: Material Topics 2021. We are also reporting additional indicators that are not required by GRI to provide greater transparency for stakeholders. This is the ninth consecutive year that GRI's principles have informed our reporting process. The financial data drawn from our Form 10-K have been externally assured. While other data haven't been externally assured, the performance metrics have been subject to internal quality assurance procedures.

DISCLOSURE NUMBER AND TITLE	PAGE/RESPONSE/OMISSION
GRI 2: General Disclosures 2021	
2-1 Organizational details	Strategy/Sustainability Strategy (p. 8) About Operations 2022 10-K (pp. 1, 10–12) *Southwestern Energy Company is a publicly held company. Our common stock is traded on the New York Stock Exchange under the symbol "SWN."*
2-2 Entities included in the organization's sustainability reporting	*All entities in the consolidated financial statement are covered in this report.*
2-3 Reporting period, frequency and contact point	Reporting period: January 1, 2022–December 31, 2022, unless otherwise stated in the report. Frequency: Annual Publication date: 2023 Contact Us 2022 10-K (cover page)
2-4 Restatements of information	Performance Metrics (pp. 11–14) *Restatements of information are described in footnotes to performance metrics, where relevant.*
2-5 External assurance	*The financial data drawn from our Form 10-K has been externally assured; while other data has not been externally assured, it has been subject to internal quality assurance procedures.*

DISCLOSURE NUMBER AND TITLE	PAGE/RESPONSE/OMISSION
GRI 2: General Disclosures 2021	
2-6 Activities, value chain and other business relationships	Strategy/Sustainability Strategy (p. 8) Performance Metrics/Key Data Summary (p. 11) Operations 2022 10-K (pp. 10–21, 21–22, 32–33, 51–52, 95–100) *As SWN is a vertically integrated company supplying a basic commodity product, we do not have a long supply chain. We do purchase equipment (e.g., steel casing, pipe, valves, engineered equipment) from a variety of manufacturers, and we use contractors for some aspects of our work. We utilize approximately 1,860 outside suppliers. Of these, 86% are contractors/service suppliers, 9% supply materials, 2% are consultants and 3% provide transportation. An estimated 99% of our suppliers are U.S.-based, and 1% are based elsewhere. The estimated annual value of payments made to suppliers in 2022 was approximately $2.29 billion.*
2-7 Employees	Performance Metrics/Workforce Performance Metrics (p. 14) Workforce/2022 Key Metrics (p. 50) Workforce/Diversity, Equity & Inclusion (pp. 53–54) Workforce/Contractor Management (p. 56) *SWN does not employ a significant number of seasonal workers.*
2-8 Workers who are not employees	Workforce/Contractor Management (p. 56)
2-9 Governance structure and composition	Performance Metrics/Governance Metrics (p. 13) Governance (pp. 68–78) Board of Directors 2023 Proxy Statement (pp. 4–8, 20–23)
2-10 Nomination and selection of the highest governance body	2023 Proxy Statement (pp. 9–17, 25) Corporate Governance Guidelines (pp. 5–8)
2-11 Chair of the highest governance body	2023 Proxy Statement (p. 24) *The Chairman of the Board is not an executive officer.*
2-12 Role of the highest governance body in overseeing the management of impacts	Governance/Corporate Governance (pp. 69–71) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) 2023 Proxy Statement (pp. 4–5, 8, 24–25) Corporate Governance Guidelines (pp. 1–2) *To manage risks related to economic, social, environmental and other topics, we have an enterprise risk management committee made up of senior managers from throughout the company. The committee regularly assesses and discusses the risks facing the company and presents its findings to the Audit Committee at least once a year. Based on the committee's analysis and recommendations, the Board sets the direction of the company to manage these risks.*

DISCLOSURE NUMBER AND TITLE	PAGE/RESPONSE/OMISSION
GRI 2: General Disclosures 2021	
2-13 Delegation of responsibility for managing impacts	Governance (pp. 68–78)
2-14 Role of the highest governance body in sustainability reporting	2023 Proxy Statement (p. 23)
2-15 Conflicts of interest	2023 Proxy Statement (pp. 10, 25–26)
2-16 Communication of critical concerns	Governance/Corporate Governance/Corporate Governance Principles & Best Practices/Communicating With the Board (p. 70) 2023 Proxy Statement (p. 18) Contact the Board *Also, as part of our internal control procedures, our Audit Services department conducts regular internal audits. These audits address a range of compliance issues, including compliance with our* Business Conduct Guidelines *and* Code of Ethics*. Concerns raised by these audits are forwarded to our Chief Compliance Officer and the Audit Committee for disposition.*
2-17 Collective knowledge of the highest governance body	Governance/Corporate Governance/Board Skills & Expertise (p. 70) 2023 Proxy Statement (pp. 9–17)
2-18 Evaluation of the performance of the highest governance body	2023 Proxy Statement (p. 24)
2-19 Remuneration policies	2023 Proxy Statement (pp. 21, 27–47)
2-20 Process to determine remuneration	2023 Proxy Statement (pp. 21, 27–47)
2-21 Annual total compensation ratio	2023 Proxy Statement (p. 55)
2-22 Statement on sustainable development strategy	Message From the CEO (p. 3)

DISCLOSURE NUMBER AND TITLE	PAGE/RESPONSE/OMISSION
GRI 2: General Disclosures 2021	
2-23 Policy commitments	Our Core Values (p. 4) Strategy (pp. 6–9) Governance/Ethics & Integrity (pp. 72–73) Anti-Corruption Compliance Policy Business Conduct Guidelines Committees and Charters Corporate Governance Guidelines Code of Ethics for Section 406 Officers Equal Opportunity Policy Harassment and Discrimination Policy HSE Policy Human Rights Policy *We do not apply the precautionary principle formally across all our risk management decisions, but it does inform our thinking.*
2-24 Embedding policy commitments	Environment/Climate Change & Emissions (pp. 16–29) Environment/Land/Solid Waste Management (p. 39) Health & Safety/Occupational Safety (pp. 41–45) Governance/Corporate Governance (pp. 69–71) Governance/Ethics & Integrity (pp. 72–73) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Anti-Corruption Compliance Policy Business Conduct Guidelines Committees and Charters Corporate Governance Guidelines Code of Ethics for Section 406 Officers Equal Opportunity Policy Harassment and Discrimination Policy HSE Policy Human Rights Policy
2-25 Processes to remediate negative impacts	Communities/Community Engagement/Responding to Community Concerns (pp. 59–62) Governance/Ethics & Integrity (pp. 72–73) Governance/Corporate Governance/Stakeholder Engagement (p. 71)
2-26 Mechanisms for seeking advice and raising concerns	Governance/Ethics & Integrity (pp. 72–73) Business Conduct Guidelines Code of Ethics for Section 406 Officers

DISCLOSURE NUMBER AND TITLE	PAGE/RESPONSE/OMISSION
GRI 2: General Disclosures 2021	
2-27 Compliance with laws and regulations	*SWN had no significant fines and no significant nonmonetary sanctions for noncompliance with laws and regulations during the reporting period. For the purposes of this report, SWN defines financially material fines and nonmonetary sanctions for noncompliance with laws and regulations as "significant." Any instances of significant noncompliance would be reported in our annual Form 10-K filing.*
2-28 Membership associations	**Industry Memberships**
2-29 Approach to stakeholder engagement	Strategy/Key Issues (p. 9) Communities/Community Engagement (pp. 58–62) Governance/Corporate Governance/Stakeholder Engagement (p. 71)
2-30 Collective bargaining agreements	*No SWN employees are covered by collective bargaining agreements.*
GRI 3: Material Topics 2021	
3-1 Process to determine material topics	Appendix/Additional Information on Key Issues (pp. 107–108)
3-2 List of material topics	Strategy/Key Issues (p. 9) Appendix/Additional Information on Key Issues (pp. 107–108)

DISCLOSURE NUMBER AND TITLE	PAGE/RESPONSE/OMISSION
GRI 201: Economic Performance 2016	
3-3 Management of material topics	Strategy (pp. 6–9) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp. 107–108) 2022 10-K (pp. 55–75)
201-1 Direct economic value generated and distributed	Performance Metrics/Key Data Summary (p. 11) 2022 10-K (pp. 55–75)
201-2 Financial implications and other risks and opportunities due to climate change	Strategy/Key Issues (p. 9) Environment/Climate Change & Emissions/2022 Scenario Analysis (pp. 24–27) Environment/Climate Change & Emissions/Climate-Related Risks & Opportunities (p. 28) Environment/Climate Change & Emissions/Climate Governance (p. 29) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) 2022 10-K (pp. 31–32, 41–43, 46–47)
201-3 Defined benefit plan obligations and other retirement plans	2022 10-K (pp. 121–125)
201-4 Financial assistance received from government	*SWN has not received financial assistance from any government during this reporting period.*
GRI 203: Indirect Economic Impacts 2016	
3-3 Management of material topics	Strategy (pp. 6–9) Communities/Community Engagement/Responding to Community Concerns (pp. 59–62) Communities/Economic Impacts (pp. 63–64) Communities/Giving & Volunteering (pp. 65–67) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp. 107–108)
203-1 Infrastructure investments and services supported	Environment/Water/Responsible Produced-Water Management (pp. 33–35) Communities/Economic Impacts (pp. 63–64) Communities/Giving & Volunteering (pp. 65–67)
203-2 Significant indirect economic impacts	Communities/Economic Impacts (pp. 63–64)

DISCLOSURE NUMBER AND TITLE	PAGE/RESPONSE/OMISSION
GRI 204: Procurement Practices 2016*	
Management approach*	Strategy (pp. 6–9) Communities/Community Engagement/Responding to Community Concerns (pp. 59–62) Communities/Economic Impacts (pp. 63–64) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp. 107–108) *SWN makes every effort to work with local suppliers at significant locations of operations.*
GRI 205: Anti-Corruption 2016*	
Management approach*	Strategy (pp. 6–9) Governance/Ethics & Integrity (pp. 72–73) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp. 107–108) Business Conduct Guidelines Anti-Corruption Compliance Policy
205-2 Communication and training about anti-corruption policies and procedures	Governance/Ethics & Integrity (pp. 72–73) Governance/Corporate Responsibility Oversight & Enterprise Risk Management/ESG Policies & Documents (p. 77) Anti-Corruption Compliance Policy
GRI 301: Materials 2016*	
Management approach*	Strategy (pp. 6–9) Environment/Water/Responsible Produced-Water Management (pp. 33–35) Communities/Community Engagement/Responding to Community Concerns (pp. 59–62) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp.74–78) Appendix/Additional Information on Key Issues (pp. 107–108)
301-1 Materials used by weight or volume	Environment/Water/Responsible Produced-Water Management (pp. 33–35) Environment/Land/Solid Waste Management (p. 39) *The part of this disclosure that is relevant to SWN relates to the use of chemicals in our hydraulic fracturing fluids. SWN discloses that information to the* FracFocus database *in all its operating areas.*

DISCLOSURE NUMBER AND TITLE	PAGE/RESPONSE/OMISSION
GRI 302: Energy 2016*	
Management approach*	Strategy (pp. 6–9) Environment/Climate Change & Emissions (pp. 16–29) Communities/Community Engagement/Responding to Community Concerns (pp. 59–62) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp. 107–108)
302-4 Reduction of energy consumption	Environment/Climate Change & Emissions (pp. 16–29)
GRI 303: Water and Effluents 2018	
3-3 Management of material topics	Strategy (pp. 6–9) Environment/Water (pp. 30–36) Communities/Community Engagement/Responding to Community Concerns (pp. 59–62) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp. 107–108)
303-1 Interactions with water as a shared resource	Environment/Water/Water Use (pp. 30–31) Environment/Water/Responsible Produced-Water Management (pp. 33–35) Communities/Community Engagement/Responding to Community Concerns (pp. 59–62) *No water source is significantly affected by SWN's water withdrawals. We follow state and other regulatory agency-imposed guidelines for stopping withdrawal from surface water sources during low-flow periods to minimize impacts. We also obtain permits and follow regulatory requirements for water sources to ensure we are considering local needs and impacts. We do not operate in any areas of baseline water stress based on the* World Resources Institute Aqueduct Water Risk Atlas.
303-2 Management of water discharge-related impacts	Environment/Water/Responsible Produced-Water Management/Wastewater Disposal (p. 34)
303-3 Water withdrawal	Performance Metrics/Water Use, Recycling and Spill Metrics (p. 12) Environment/Water/Water Use (pp. 30–31) Environment/Water/Responsible Produced-Water Management (pp. 33–35)
303-4 Water discharge	Environment/Water/Responsible Produced-Water Management/Wastewater Disposal (p. 34)
GRI 11: 11.6.5	Environment/Water/Responsible Produced-Water Management (pp. 33–35)
303-5 Water consumption	Performance Metrics/Water Use, Recycling and Spill Metrics (p. 12) Environment/Water/Water Use (pp. 30–31) *All produced water is either recycled and reused or disposed of in approved saltwater disposal wells.*

DISCLOSURE NUMBER AND TITLE	PAGE/RESPONSE/OMISSION
GRI 304: Biodiversity 2016*	
Management approach*	Strategy (pp. 6–9)
	Environment/Land/Surface Impacts & Biodiversity (p. 37)
	Communities/Community Engagement/Responding to Community Concerns (pp. 59–62)
	Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78)
	Appendix/Additional Information on Key Issues (pp. 107–108)
304-2 Significant impacts of activities, products, and services on biodiversity	Environment/Water/Freshwater Neutral (p. 32)
	Environment/Land/Surface Impacts & Biodiversity (p. 37)
	Communities/Community Engagement/Responding to Community Concerns (pp. 59–62)
304-3 Habitats protected or restored	Environment/Water/Freshwater Neutral (p. 32)
	Environment/Land/Surface Impacts & Biodiversity (p. 37)
	Communities/Community Engagement/Responding to Community Concerns (pp. 59–62)
304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	Environment/Land/Surface Impacts & Biodiversity (p. 37)
GRI 305: Emissions 2016	
3-3 Management of material topics	Strategy (pp. 6–9)
	Environment/Climate Change & Emissions (pp. 16–29)
	Communities/Community Engagement/Responding to Community Concerns (pp. 59–62)
	Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78)
	Appendix/Additional Information on Key Issues (pp. 107–108)
305-1 Direct (Scope 1) GHG emissions	Performance Metrics/GHG Emissions Metrics (p. 12)
	Environment/Climate Change & Emissions (pp. 16–29)
305-2 Energy indirect (Scope 2) GHG emissions	Performance Metrics/GHG Emissions Metrics (p. 12)
	Environment/Climate Change & Emissions (pp. 16–29)
305-3 Other indirect (Scope 3) GHG emissions	*SWN does not currently report Scope 3 GHG emissions.*
305-4 GHG emissions intensity	Performance Metrics/Key Data Summary (p. 11)
	Environment/Climate Change & Emissions (pp. 16–29)
305-5 Reduction of GHG emissions	Performance Metrics/GHG Emissions Metrics (p. 12)
	Environment/Climate Change & Emissions/Emissions Targets & Performance (pp. 18–20)
305-6 Emissions of ozone-depleting substances (ODS)	*SWN does not produce, import nor export ODS.*
305-7 Nitrogen oxides (NO_x), sulfur oxides (SO_x), and other significant air emissions	*SWN does not currently report non-GHG emissions.*

DISCLOSURE NUMBER AND TITLE	PAGE/RESPONSE/OMISSION
GRI 308: Supplier Environmental Assessment 2016*	
Management approach*	Strategy (pp. 6–9) Health & Safety/Occupational Safety (pp. 41–45) Workforce/Contractor Management (p. 56) Communities/Community Engagement/Responding to Community Concerns (pp. 59–62) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp. 107–108)
308-1 New suppliers that were screened using environmental criteria	Health & Safety/Occupational Safety (pp. 41–45) Workforce/Contractor Management (p. 56) *We review contractor health, safety and environmental (HSE) management programs and performance, including on environmental issues, as part of a robust HSE audit program.*
GRI 401: Employment 2016	
3-3 Management of material topics	Strategy (pp. 6–9) Health & Safety/Health & Well-Being (p. 49) Workforce/Talent Acquisition & Development (pp. 51–52) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp. 107–108)
401-1 New employee hires and employee turnover	Workforce/Talent Acquisition & Development/Employee Engagement & Retention (p. 52) *SWN does not currently report the number and rate of new hires during the reporting period, by age group, gender or region.*
401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Health & Safety/Health & Well-Being (p. 49) Workforce/Talent Acquisition & Development (pp. 51–52) *We offer competitive pay and benefits. In addition to a base salary, our compensation program includes variable pay, stock- and cash-based awards, and a 401(k) plan. Beyond financial compensation, SWN provides challenging work assignments, potential for advancement, training specific to each role and a competitive benefits package. Our benefit offerings include high-quality health and dental insurance plans; leaves of absence, including family and medical leave, personal leave, military leave, workers' compensation and short-term and long-term disability benefits; life and accidental death and dismemberment insurance; long-term care insurance; employee assistance programs; and optional supplemental insurance. We also offer a high-deductible insurance option and personal health savings accounts, which the company will help to fund. We also have implemented on-site health screenings and other health and wellness education and encouragement programs. Employees who work at least 20 hours per week are eligible for select benefits and employees who work a minimum of 40 hours per week are eligible for all benefits. For more on our benefits programs see our* **Careers webpage.**
401-3 Parental leave	*Our benefits offerings include family leave. SWN does not currently report the number of employees that took parental leave by gender nor the return to work and retention rates of employees that took parental leave by gender.*

DISCLOSURE NUMBER AND TITLE	PAGE/RESPONSE/OMISSION
GRI 403: Occupational Health and Safety 2018	
3-3 Management of material topics	Strategy (pp. 6–9) Health & Safety (pp. 40–49) Workforce/ONE Team Culture (p. 55) Workforce/Contractor Management (p. 56) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp. 107–108)
403-1 Occupational health and safety management system	Health & Safety/Occupational Safety (pp. 41–45) Governance/Corporate Responsibility Oversight & Enterprise Risk Management/Health, Safety & Environmental Management (p. 78) *Our health and safety management systems apply to employees and contractors who work on SWN sites. We undertake regular internal reviews and audits of compliance with the management system; it is not currently externally audited.*
403-2 Hazard identification, risk assessment, and incident investigation	Health & Safety (pp. 40–49) Governance/Corporate Responsibility Oversight & Enterprise Risk Management/Health, Safety & Environmental Management (p. 78)
403-3 Occupational health services	Health & Safety/Health & Well-Being (p. 49) Governance/Corporate Responsibility Oversight & Enterprise Risk Management/Health, Safety & Environmental Management (p. 78)
403-4 Worker participation, consultation, and communication on occupational health and safety	Health & Safety/Occupational Safety (pp. 41–45) Workforce/ONE Team Culture (p. 55)
403-5 Worker training on occupational health and safety	Health & Safety/Occupational Safety/Safety Training (pp. 43–44)
403-6 Promotion of worker health	Health & Safety (pp. 40–49)
403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Health & Safety (pp. 40–49) Workforce/ONE Team Culture (p. 55) Workforce/Contractor Management (p. 56)
403-8 Workers covered by an occupational health and safety management system	Health & Safety/Occupational Safety (pp. 41–45) Governance/Corporate Responsibility Oversight & Enterprise Risk Management/Health, Safety & Environmental Management (p. 78) *Our health and safety management systems apply to employees and contractors who work on SWN sites.*
403-9 Work-related injuries	Performance Metrics/Safety Performance Metrics (p. 14) Health & Safety/Occupational Safety (pp. 41–45) *We report industry-standard data related to health and safety to the American Exploration and Product Council AEPC on an annual basis.*
403-10 Work-related ill health	Health & Safety/Occupational Health & Industrial Hygiene (p. 47)

DISCLOSURE NUMBER AND TITLE	PAGE/RESPONSE/OMISSION
GRI 404: Training and Education 2016	
3-3 Management of material topics	Strategy (pp. 6–9) Health & Safety/Occupational Safety (pp. 41–45) Workforce/Talent Acquisition & Development (pp. 51–52) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp. 107–108)
404-1 Average hours of training per year per employee	Health & Safety/Occupational Safety/Safety Training (pp. 43–44)
404-2 Programs for upgrading employee skills and transition	Health & Safety/Occupational Safety (pp. 41–45) Workforce/Talent Acquisition & Development (pp. 51–52)
404-3 Percentage of employees receiving regular performance and career development reviews	Workforce/2022 Key Metrics (p. 50)
GRI 405: Diversity and Equal Opportunity 2016	
3-3 Management of material topics	Strategy (pp. 6–9) Workforce/Diversity, Equity & Inclusion (pp. 53–54) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp. 107–108) Equal Employment Opportunity Policy Harassment and Discrimination Policy
405-1 Diversity of governance bodies and employees	Performance Metrics/Governance Metrics (p. 14) Performance Metrics/Workforce Performance Metrics (p. 14) Workforce/Diversity, Equity & Inclusion (pp. 53–54) Governance/2022 Key Metrics (p. 68) Appendix/U.S. Equal Employment Opportunity Commission EEO-1 Report Data
405-2 Ratio of basic salary and remuneration of women to men	Workforce/Diversity, Equity & Inclusion/Pay Equity (p. 54)
GRI 406: Non-Discrimination 2016*	
Management approach*	Strategy (pp. 6–9) Workforce/Diversity, Equity & Inclusion (pp. 53–54) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp. 107–108) Equal Employment Opportunity Policy Harassment and Discrimination Policy

DISCLOSURE NUMBER AND TITLE	PAGE/RESPONSE/OMISSION
GRI 411: Rights of Indigenous Peoples 2016*	
Management approach*	Communities/Community Engagement/Protecting Cultural Resources & Engaging With Tribes (p. 59) Communities/Community Engagement/Responding to Community Concerns (p. 59–62) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp. 107–108) Human Rights Policy *We currently hold exclusive licenses to search and conduct an exploration program covering 2,518,519 net acres in New Brunswick. In 2015, the provincial government in New Brunswick imposed a moratorium on hydraulic fracturing until it is satisfied with a list of conditions. In response to this moratorium, we were granted an extension of the licenses to March 2021. In May 2016, the provincial government announced that the moratorium would continue indefinitely. Given this development, we fully impaired our investment in New Brunswick in 2016. In 2021, we were granted a further extension of the licenses through March 2026. Unless and until the moratorium is lifted, we will not be able to develop these assets. Any future work in New Brunswick will include a hiring policy that supports strong representation of First Nations within our workforce and due diligence that focuses on First Nations' concerns.*
GRI 413: Local Communities 2016	
3-3 Management of material topics	Strategy (pp. 6–9) Communities (pp. 57–67) Governance/Corporate Governance/Stakeholder Engagement (p. 71) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp. 107–108)
413-1 Operations with local community engagement, impact assessments, and development programs	Performance Metrics/Social Performance Metrics (p. 13) Environment/Water (pp. 30–36) Environment/Land (pp. 37–39) Health & Safety/Occupational Safety (pp. 41–45) Workforce/ONE Team Culture (p. 55) Communities (pp. 57–67) Governance/Corporate Governance/Stakeholder Engagement (p. 71)
413-2 Operations with significant actual and potential negative impacts on local communities	Communities/Community Engagement/Responding to Community Concerns (pp. 59–62)

DISCLOSURE NUMBER AND TITLE	PAGE/RESPONSE/OMISSION
GRI 414: Supplier Social Assessment 2016	
3-3 Management of material topics	Strategy (pp. 6–9) Workforce/ONE Team Culture (p. 55) Workforce/Contractor Management (p. 56) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp.107–108)
414-1 New suppliers that were screened using social criteria	Health & Safety/Occupational Safety (pp. 41–45) Workforce/Contractor Management (p. 56)
414-2 Negative social impacts in the supply chain and actions taken	Health & Safety/Occupational Safety (pp. 41–45) Workforce/Contractor Management (p. 56) *SWN does not currently report the number and percentage of suppliers identified as having actual or potential negative social impacts, the percentage that agreed to improve performance, nor the percentage terminated.*
GRI 415: Public Policy 2016	
3-3 Management of material topics	Strategy (pp. 6–9) Governance/Ethics & Integrity/Public Policy Engagement (p. 73) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp. 107–108)
415-1 Political contributions	Governance/Ethics & Integrity/Public Policy Engagement (p. 73)
Setting Appropriate Targets and Metrics*	
3-3 Management approach*	Strategy (pp. 6–9) Health & Safety/Occupational Safety (pp. 41–45) Environment/Climate Change & Emissions (pp. 16–29) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp. 107–108)
Managing Contractors*	
3-3 Management approach*	Strategy (pp. 6–9) Workforce/ONE Team Culture (p. 55) Workforce/Contractor Management (p. 56) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Appendix/Additional Information on Key Issues (pp. 107–108)

*Not required for GRI in accordance reporting

SASB Index

The SASB Standards – now part of the IFRS Foundation – guide the disclosure of financially significant sustainability information by companies to their investors. The index below refers to SASB's Standard for the Oil and Gas Exploration and Production and indicates the disclosures that were considered in our report. All metrics are reported fully unless otherwise noted.

TOPIC	ACCOUNTING METRIC	PAGE/RESPONSE
Greenhouse Gas Emissions	**EM–EP–110a.1:** Gross global Scope 1 emissions, percentage methane, percentage covered under emissions-limiting regulations	Performance Metrics/GHG Emissions Metrics (p. 12) Environment/2022 Key Metrics (p. 15) Environment/Climate Change and Emissions/Emissions Targets & Performance (pp. 18–20) Environment/Climate Change & Emissions/Emissions-Reduction Efforts (pp. 21–23) *All SWN's operations are in the U.S., and we strive to meet or exceed all federal or state regulations.*
	EM–EP–110a.2: Amount of gross global Scope 1 emissions from: (1) flared hydrocarbons, (2) other combustion, (3) process emissions, (4) other vented emissions, and (5) fugitive emissions	Performance Metrics/GHG Emissions Metrics (p. 12) Performance Metrics/GHG Emissions by Source Categories (p. 13) Environment/Climate Change & Emissions/Emissions Targets & Performance (pp. 18–20)
	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	Environment/Climate Change & Emissions (pp. 16–29) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78)
Water Management	**EM–EP–140a.1: 1)** Total fresh water withdrawn, (2) total fresh water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Performance Metrics/Water Use, Recycling and Spill Metrics (p. 12) Environment/Water/Water Use (pp. 30–31) Environment/Water/Freshwater Neutral (p. 32) Environment/Water/Responsible Produced-Water Management (pp. 33–35) Environment/Water/Right Products Program (p. 36) Communities/Community Engagement/Responding to Community Concerns (pp. 59–62) *SWN does not operate in any areas of baseline water stress based on the World Resources Institute Aqueduct Water Risk Atlas.*
	EM–EP–140a.2: Volume of produced water and flowback generated; percentage (1) discharged, (2) injected, (3) recycled; hydrocarbon content in discharged water	Performance Metrics/Water Use, Recycling and Spill Metrics (p. 12) Environment/Water/Responsible Produced-Water Management (pp. 33–35) *There are no hydrocarbons in the water SWN discharges.*

TOPIC	ACCOUNTING METRIC	PAGE/RESPONSE
Water Management	**EM–EP–140a.3:** Percentage of hydraulically fractured wells for which there is public disclosure of all fracturing fluid chemicals used	Environment/Water/Water Use (pp. 30–31) Environment/Water/Freshwater Neutral (p. 32) Environment/Water/Responsible Produced-Water Management (pp. 33–35) Environment/Water/Our Record (p. 36) Environment/Water/Right Products Program (p. 36) *SWN publicly discloses fracturing fluid chemicals used in all its operating areas to the FracFocus database.*
	EM–EP–140a.4: Percentage of hydraulic fracturing sites where ground or surface water quality deteriorated compared to a baseline	Environment/Water/Freshwater Neutral (p. 32) Environment/Water/Responsible Produced-Water Management/Protecting Water Resources (p. 35) Environment/Water/Our Record (p. 36)
Biodiversity Impacts	**EM–EP–160a.1:** Description of environmental management policies and practices for active sites	Environment/Water/Freshwater Neutral (p. 32) Environment/Land/Surface Impacts & Biodiversity (p. 37) Environment/Land/Preventing Spills (p. 38) Governance/Corporate Responsibility Oversight & Enterprise Risk Management/Health, Safety & Environmental Management (p. 78)
	EM–EP–160a.2: Number and aggregate volume of hydrocarbon spills, volume in Arctic, volume impacting shorelines with ESI rankings 8-10, and volume recovered	Performance Metrics/Water Use, Recycling and Spill Metrics (p. 12) Environment/Water (pp. 30–36) Environment/Land/Preventing Spills (p. 38) *SWN does not operate in the Arctic or near shorelines with ESI rankings 8–10.*
	EM–EP–160a.3: Percentage of (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat	Environment/Land/Surface Impacts & Biodiversity (p. 37)
Security, Human Rights & Rights of Indigenous Peoples	**EM–EP–210a.1:** Percentage of (1) proved and (2) probable reserves in or near areas of conflict	*Not applicable; SWN does not operate near any areas of conflict or have any proved or probable reserves in or near areas of conflict.*
	EM–EP–210a.2. Percentage of (1) proved and (2) probable reserves in or near indigenous land	Communities/Community Engagement/Protecting Cultural Resources & Engaging with Tribes (p. 59) See note for GRI 411, 3–3
	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	Communities/Community Engagement/Protecting Cultural Resources & Engaging with Tribes (p. 59) Communities/Community Engagement/Responding to Community Concerns (pp. 59–62) Human Rights Policy *SWN does not operate near any areas of conflict or have any proved or probable reserves in or near areas of conflict.*

TOPIC	ACCOUNTING METRIC	PAGE/RESPONSE
Community Relations	**EM–EP–140a.4:** Percentage of hydraulic fracturing sites where ground or surface water quality deteriorated compared to a baseline	Communities/Community Engagement/Protecting Cultural Resources & Engaging with Tribes (p. 59) Communities/Community Engagement/Responding to Community Concerns (pp. 59–62) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78)
Workforce Health & Safety	**EM–EP–320a.1: (1)** Total recordable incident rate (TRIR), (2) fatality rate, (3) near miss frequency rate (NMFR), and (4) average hours of health, safety, and emergency response training for (a) full–time employees, (b) contract employees, and (c) short–service employees	Performance Metrics/Safety Performance Metrics (p. 14) Health & Safety/Key 2022 Metrics (p. 40) Health & Safety/Occupational Safety/Safety Training (pp. 43–44) Health & Safety/Occupational Safety/Occupational Safety Performance (p. 45) Health & Safety/Emergency Preparedness (p. 48)
	EM–EP–320a.2: Discussion of management systems used to integrate a culture of safety throughout the exploration and production lifecycle	Health & Safety (pp. 40–49) Workforce/ONE Team Culture (p. 55) Workforce/Contractor Management (p. 56) Governance/Corporate Responsibility Oversight & Enterprise Risk Management/Health, Safety & Environmental Management (p. 78)
Business Ethics & Transparency	**EM–EP–510a.1:** Percentage of (1) proved and (2) probable reserves in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	*Not applicable; all of SWN's operations are in the U.S.*
	EM–EP–510a.2: Description of the management system for prevention of corruption and bribery throughout the value chain	Governance/Ethics & Integrity (pp. 72–73) Governance/Corporate Responsibility Oversight & Enterprise Risk Management/ESG Policies & Documents (p. 77) Business Conduct Guidelines Anti-Corruption Compliance Policy
Critical Incident Risk Management	**EM–EP–540a.1:** Process Safety Event (PSE) rates for Loss of Primary Containment (LOPC) of greater consequence (Tier 1)	Performance Metrics/Water Use, Recycling and Spill Metrics (p. 12) Environment/Land/Preventing Spills (p. 38)

ACTIVITY METRIC	PAGE/RESPONSE
EM–EP–000.A: Production of: (1) oil, (2) natural gas, (3) synthetic oil, and (4) synthetic gas	2022 10-K (pp. 14, 53–54) Operations
EM–EP–000.B: Number of offshore sites	*Not applicable; SWN does not have any offshore operations.*
EM–EP–000.C: Number of terrestrial sites	2022 10-K (pp. 50–52)

Task Force on Climate-related Financial Disclosures Index

SWN supports the recommendations of the **Task Force on Climate-related Financial Disclosures** (TCFD), which was established by the Financial Stability Board with the aim of improving the reporting of climate-related risks and opportunities. TCFD aims to develop voluntary, consistent climate-related financial risk disclosures for use by companies in providing information to investors, lenders, insurers, and other stakeholders. The following index highlights our key public disclosures on climate change in alignment with the TCFD recommendations.

GOVERNANCE

Indicator	Page/Response
TCFD–G1: Board's oversight of climate-related risks and opportunities.	Environment/Climate Change & Emissions/Climate Governance (p. 29) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78)
TCFD–G2: Management's role in assessing and managing climate-related risks and opportunities.	Environment/Climate Change & Emissions/Climate Governance (p. 29) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78)

STRATEGY

Indicator	Page/Response
TCFD–S1: Climate-related risks and opportunities the organization has identified over the short, medium and long term.	Strategy/Key Issues (p. 9) Environment/Climate Change & Emissions/2022 Scenario Analysis (pp. 24–27) Environment/Climate Change & Emissions/Climate-Related Risks & Opportunities (p. 28) Environment/Climate Change & Emissions/Climate Governance (p. 29) Environment/Water (pp. 30–36) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) **2022 10–K** (pp. 31–32, 41–43, 46–47)
TCFD–S2: Impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.	Environment/Climate Change & Emissions (pp. 16–29) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78)
TCFD–S3: Resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	Strategy/Sustainability Strategy (p. 8) Environment/Climate Change & Emissions/2022 Scenario Analysis (pp. 24–27) Environment/Climate Change & Emissions/Climate-Related Risks & Opportunities (p. 28) Environment/Climate Change & Emissions/Climate Governance (p. 29)

RISK MANAGEMENT

Indicator	Page/Response
TCFD–R1: Organization's processes for identifying and assessing climate-related risks.	Strategy/Key Issues (p. 9) Environment/Climate Change & Emissions/2022 Scenario Analysis (pp. 24–27) Environment/Climate Change & Emissions/Climate-Related Risks & Opportunities (p. 28) Environment/Climate Change & Emissions/Climate Governance (p. 29) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78)
TCFD–R2: Organization's processes for managing climate-related risks.	Strategy/Key Issues (p. 9) Environment/Climate Change & Emissions (pp. 16–29) Communities/Community Engagement/Responding to Community Concerns (pp. 59–62) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78)
TCFD–R3: How processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.	Environment/Climate Change & Emissions/Climate-Related Risks & Opportunities (p. 28) Environment/Climate Change & Emissions/Climate Governance (p. 29) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78)

METRICS AND TARGETS

Indicator	Page/Response
TCFD–M1: Metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	Performance Metrics/Key Data Summary (p. 11) Performance Metrics/ Water Use, Recycling and Spill Metrics (p. 12) Performance Metrics/GHG Emissions Metrics (p. 12) Performance Metrics/GHG Emissions by Source Categories (p. 13) Environment/2022 Key Metrics (p. 15) Environment/Climate Change & Emissions/Emissions Targets & Performance (pp. 18–20) Environment/Climate Change & Emissions/Climate Governance (p. 29)
TCFD–M2: Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas emissions, and the related risks.	Performance Metrics/GHG Emissions Metrics (p. 12) Environment/2022 Key Metrics (p. 15) Environment/Climate Change & Emissions/Emissions Targets & Performance (pp. 18–20) Environment/Climate Change & Emissions/Emissions-Reduction Efforts (pp. 21–23) *SWN does not currently report Scope 3 GHG emissions.*
TCFD–M3: Targets used by the organization to manage climate-related risks and opportunities and performance against targets.	Strategy (pp. 6–9) Environment/Climate Change & Emissions/Emissions Targets & Performance (pp. 18–20) Environment/Climate Change & Emissions/Emissions-Reduction Efforts (pp. 21–23) Environment/Climate Change & Emissions/Climate Governance (p. 29) Environment/Water/Freshwater Neutral (p. 32) Governance/2022 Key Metrics (p. 68) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78)

IPIECA/API/IOGP Sustainability Reporting Guidance Index

IPIECA is the global oil and gas industry association responsible for developing, sharing and promoting best practices and knowledge to help the industry and improve its environmental and social performance. SWN believes its performance reporting promotes transparency, performance improvement and stakeholder engagement. The index below refers to the IPIECA/API/IOGP sector-specific sustainability reporting guidance for the oil and gas industry. The fourth edition was published in 2020 in conjunction with the American Petroleum Institute (API) and the International Association of Oil & Gas Producers (IOGP).

ISSUE	INDICATOR	PAGE/RESPONSE
Governance and business ethics		
Governance and management systems	**GOV–1:** Governance approach	Workforce/ONE Team Culture (p. 55) Workforce/Contractor Management (p. 56) Governance/Corporate Governance (pp. 69–71) Governance/Ethics & Integrity (pp. 72–73) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) 2023 Proxy Statement (pp. 4–8, 9–17, 20–23) Board of Directors Business Conduct Guidelines Corporate Governance *The financial data drawn from our Form 10-K has been externally assured; while other data has not been externally assured, the data has been subject to internal quality assurance procedures.*
	GOV–2: Management systems	Strategy (pp. 6–9) Environment/Climate Change & Emissions/Emissions-Reduction Efforts (pp. 21–23) Health & Safety/Occupational Safety/Safety Training (pp. 43–44) Health & Safety/Asset Integrity (p. 46) Workforce/ONE Team Culture (p. 55) Governance/Corporate Governance (pp. 69–71) Governance/Ethics & Integrity (pp. 72–73) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78)
Business ethics and transparency	**GOV–3:** Preventing corruption	Workforce/Contractor Management (p. 56) Governance/Corporate Governance (pp. 69–71) Governance/Ethics & Integrity (pp. 72–73) Governance/Corporate Responsibility Oversight & Enterprise Risk Management/ESG Policies & Documents (p. 77) Business Conduct Guidelines Anti-Corruption Compliance Policy

ISSUE	INDICATOR	PAGE/RESPONSE
Governance and business ethics		
Business ethics and transparency	**GOV–4:** Transparency of payments to host governments	Communities/Economic Impacts (pp. 63–64) 2022 10-K (pp. 119–121) *SWN does not have supply contracts with governments. We have mineral leases with state and federal agencies. Approximately 3,220 acres of federal leases in the United States and approximately 23,939 acres of leases with various states in which we operate, including Pennsylvania, Ohio, West Virginia, Louisiana and Colorado. Although SWN does not participate in the Extractive Industries Transparency Initiative (EITI), we acknowledge its importance in fostering transparency, ethical conduct, and sustainable development in the oil and gas industry. All SWN's operations are in the United States, and we comply with all applicable tax laws, regulations, and reporting requirements in each jurisdiction we operate.*
	GOV–5: Public advocacy and lobbying	Strategy/Key Issues (p. 9) Governance/Ethics & Integrity/Public Policy Engagement (p. 73) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78)
Climate Change and Energy		
Climate strategy and risk	**CCE–1:** Climate governance and strategy	Strategy/Key Issues (p. 9) Environment/Climate Change & Emissions/2022 Scenario Analysis (pp. 24–27) Environment/Climate Change & Emissions/Climate-Related Risks & Opportunities (p. 28) Environment/Climate Change & Emissions/Climate Governance (p. 29) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78)
	CCE–2: Climate risk and opportunities	Environment/Climate Change & Emissions/Emissions Targets & Performance (pp.18–20) Environment/Climate Change & Emissions/Emissions-Reduction Efforts (pp. 21–23) Environment/Climate Change & Emissions/2022 Scenario Analysis (pp. 24–27) Environment/Climate Change & Emissions/Climate-Related Risks & Opportunities (p. 28)
Technology	**CCE–3:** Lower-carbon technology	Strategy (pp. 6–9) Environment/Climate Change & Emissions/Emissions Targets & Performance (pp. 18–20) Environment/Climate Change & Emissions/Emissions-Reduction Efforts (pp. 21–23) Environment/Climate Change & Emissions/2022 Scenario Analysis (pp. 24–27) Environment/Climate Change & Emissions/Climate-Related Risks & Opportunities (p. 28)
Emissions	**CCE–4:** Greenhouse gas (GHG) emissions	Performance Metrics/Key Data Summary (p. 11) Performance Metrics/GHG Emissions Metrics (p. 12) Performance Metrics/GHG Emissions by Source Categories (p. 13) Environment/Climate Change & Emissions/Emissions Targets & Performance (pp. 18–20) Environment/Climate Change & Emissions/Emissions-Reduction Efforts (pp. 21–23) *SWN does not currently report Scope 3 GHG emissions.*

ISSUE	INDICATOR	PAGE/RESPONSE
Emissions	**CCE–5:** Methane emissions	Performance Metrics/Key Data Summary (p. 11) Performance Metrics/GHG Emissions Metrics (p. 12) Performance Metrics/GHG Emissions by Source Categories (p. 13) Environment/Climate Change & Emissions/A Responsible, Low-Emissions Energy Provider (p. 17) Environment/Climate Change & Emissions/Emissions Targets & Performance (pp. 18–20) Environment/Climate Change & Emissions/Emissions-Reduction Efforts (pp. 21–23)
Flaring	**CCE–7:** Flared gas	Performance Metrics/GHG Emissions by Source Categories (p. 13) Environment/Climate Change & Emissions/Emissions Targets & Performance (pp. 18–20) Environment/Climate Change & Emissions/Emissions-Reduction Efforts (pp. 21–23)

Environment		
Water	**ENV–1:** Freshwater	Performance Metrics/Water Use, Recycling and Spill Metrics (p. 12) Environment/Water (pp. 30–36) *We do not operate in any areas of baseline water stress based on the* [World Resources Institute Aqueduct Water Risk Atlas.](#)
	ENV–2: Discharges to water	Performance Metrics/Water Use, Recycling and Spill Metrics (p. 12) Environment/Water/Responsible Produced-Water Management (pp. 33–35) *All produced water is either recycled and reused or disposed of in approved saltwater disposal wells.*
Biodiversity	**ENV–3:** Biodiversity policy and strategy	Environment/Water/Freshwater Neutral (p. 32) Environment/Land/Surface Impacts & Biodiversity (p. 37) Communities/Community Engagement/Responding to Community Concerns (pp. 59–62) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78)
	ENV–4: Protected and priority areas for biodiversity conservation	Environment/Water/Freshwater Neutral (p. 32) Environment/Land/Surface Impacts & Biodiversity (p. 37) Environment/Land/Preventing Spills (p. 38) Communities/Community Engagement/Responding to Community Concerns (pp. 59–62)
Spills	**ENV–6:** Spills to the environment	Performance Metrics/Water Use, Recycling and Spill Metrics (p. 12) Environment/Water (pp. 30–36) Environment/Land/Preventing Spills (p. 38)
Materials Management	**ENV–7:** Materials management	Environment/Water/Responsible Produced-Water Management (pp. 33–35) Environment/Land/Solid Waste Management (p. 39) Communities/Community Engagement/Responding to Community Concerns (pp. 59–62) Governance (pp. 68–78)
Decommissioning	**ENV–8:** Decommissioning	Environment/Land/Decommissioning & Restoration (p. 38) Environment/Land/Solid Waste Management (p. 39)

ISSUE	INDICATOR	PAGE/RESPONSE
Safety, health and security		
	SHS–1: Safety, health and security engagement	Health & Safety/Occupational Safety (pp. 41–45) Workforce/ONE Team Culture (p. 55) Workforce/Contractor Management (p. 56) Governance/Corporate Responsibility Oversight & Enterprise Risk Management/Health, Safety & Environmental Management (p. 78)
Workforce protection	**SHS–2:** Workforce health	Health & Safety/Occupational Safety (pp. 41–45) Health & Safety/Occupational Health & Industrial Hygiene (p. 47) Health & Safety/Health & Well-Being (p. 49) Workforce/ONE Team Culture (p. 55) Governance/Corporate Responsibility Oversight & Enterprise Risk Management/Health, Safety & Environmental Management (p. 78)
	SHS–3: Occupational injury and illness incidents	Performance Metrics/Safety Performance Metrics (p. 14) Health & Safety/Occupational Safety (pp. 41–45) Workforce/ONE Team Culture (p. 55) *We report industry-standard data related to health and safety to the American Exploration and Production Council (AXPC) on an annual basis.*
Product health, safety and environmental risk	**SHS–5:** Product stewardship	Environment/Water/Right Products Program (p. 36) *SWN does not market petroleum consumer products.*
Process safety	**SHS–6:** Process safety	Environment/Land/Preventing Spills (p. 38) Health & Safety/Asset Integrity (p. 46) Workforce/ONE Team Culture (p. 55) Workforce/Contractor Management (p. 56)
Security	**SHS–7:** Security risk management	Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78)

ISSUE	INDICATOR	PAGE/RESPONSE
Social		
Human rights management	**SOC–1:** Human rights due diligence	Communities/Community Engagement/Protecting Cultural Resources & Engaging With Tribes (p. 59) Communities/Community Engagement/Responding to Community Concerns (pp. 59–62) Governance/Ethics & Integrity (pp. 72–73) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Human Rights Policy
	SOC–2: Suppliers and human rights	Workforce/Contractor Management (p. 56) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Human Rights Policy
	SOC–3: Security and human rights	Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Human Rights Policy *All SWN's operations are in the U.S.*
Labor practices	**SOC–4:** Site-based labor practices and worker accommodation	Workforce/Talent Acquisition & Development (pp. 51–52) Workforce/ONE Team Culture (p.55) Workforce/Contractor Management (p. 56)
	SOC–5: Workforce diversity and inclusion	Workforce/Diversity, Equity & Inclusion (pp. 53–54) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Equal Employment Opportunity Policy Harassment and Discrimination Policy
	SOC–6: Workforce engagement	Workforce/Talent Acquisition & Development (pp. 51–52) Workforce/Contractor Management (p. 56)
	SOC–7: Workforce training and development	Health & Safety/Occupational Safety (pp. 41–45) Workforce/2022 Key Metrics (p. 50) Workforce/Talent Acquisition & Development (pp. 51–52)
	SOC–8: Workforce non-retaliation and grievance mechanisms	Workforce/Diversity, Equity & Inclusion (pp. 53–54) Governance/Corporate Governance/Stakeholder Engagement (p. 71) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78) Business Conduct Guidelines

ISSUE	INDICATOR	PAGE/RESPONSE
Social		
	SOC–9: Local community impacts and engagement	Communities/Community Engagement (pp. 58–62) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 74–78)
	SOC–10: Indigenous peoples	Communities/Community Engagement/Protecting Cultural Resources & Engaging With Tribes (p. 59) Communities/ Community Engagement/Responding to Community Concerns (pp. 59–62) Human Rights Policy
Community engagement	**SOC–11:** Land acquisition and involuntary resettlement	Communities/Community Engagement/Protecting Cultural Resources & Engaging With Tribes (p. 59) Communities/Economic Impacts (pp. 63–64) Governance/Corporate Governance/Stakeholder Engagement (p. 71) *Our current and planned activities do not involve any involuntary settlement of people or of their economic activities. Should the potential arise for relocation, SWN will conduct meaningful consultation with affected peoples and their communities to promote fair and just resolutions.*
	SOC–12: Community grievance mechanisms	Communities/Community Engagement (pp. 58–62) Governance/Corporate Governance/Corporate Governance Principles & Best Practices (p. 70) Governance/Corporate Governance/Stakeholder Engagement (p. 71) 2023 Proxy Statement (p. 4)
	SOC–13: Social investment	Performance Metrics/Social Performance Metrics (p. 13) Communities/Economic Impacts (pp. 63–64) Communities/Giving & Volunteering (pp. 65–67)
Local content	**SOC–14:** Local procurement and supplier development	Communities/Economic Impacts (pp. 63–64) *SWN makes every effort to work with local suppliers at significant locations of operations. We do not currently track spending based on proximity to the end destination of given products, resources, or services.*
	SOC–15: Local hiring practices	Communities/Community Engagement (pp. 58–62) Communities/Economic Impacts/Developing a Local Workforce (p. 64)

Additional Information on Key Issues

At SWN, we focus our corporate responsibility (CR) efforts and reporting on priorities that are important to our stakeholders. To identify these important CR priorities, we interview and consider the views of internal and external stakeholders, with respect to both SWN-specific activities and energy development generally. Based on this assessment, which we update annually, we identify key issues. We use this methodology as a basis for selecting which Global Reporting Initiative (GRI) disclosures to report, and we believe our process for determining report content meets the GRI reporting principles.

As part of our annual materiality assessment (see **page 9**), we analyzed our operations to ensure we considered impacts and stakeholders at each value chain stage. This value chain analysis was used to determine whether the impacts occurred primarily internally or externally to the organization and which stakeholders were most associated with each issue, which we then used as the basis for defining the boundaries of each key issue.

KEY ISSUE	GRI STANDARD	RELEVANT VALUE CHAIN STAGE	AFFECTED STAKEHOLDERS
Economic Performance			
Company financial health	**GRI 201:** Economic Performance 2016	Exploration, development, gathering and processing	Employees, investors, local stakeholders
Shareholder return	**GRI 201:** Economic Performance 2016	Exploration, development, gathering and processing	Investors
Commodity price volatility	**GRI 201:** Economic Performance 2016	Exploration, development, gathering and processing	Employees, investors, local communities, product end users
Return of capital	**GRI 201:** Economic Performance 2016	Exploration, development, gathering and processing	Employees, investors
Governance			
Setting appropriate metrics and incentives	None	Exploration, development, gathering and processing	Employees and contractors
Risk management	**GRI 3:** Material Topics 2021	Exploration, development, gathering and processing	Employees, contractors, investors, local communities
Regulation/compliance	**GRI 2:** General Disclosures 2021 **GRI 205:** Anticorruption 2016 **GRI 415:** Public Policy 2016 **GRI 11: 11.20** Anti-corruption **GRI 11: 11.22** Public Policy	Exploration, development, gathering and processing	Employees and local communities
Environment			
Environmental management, policies, targets and metrics	**GRI 3:** Material Topics 2021	Exploration, development, gathering and processing	Employees and contractors
Environmental performance monitoring	**GRI 303:** Water and Effluents 2018 **GRI 305:** Emissions 2016 **GRI 11: 11.1** GHG emissions	Exploration, development, gathering and processing	Local communities
Climate-related risks and opportunities and emissions reductions	**GRI 305:** Emissions 2016 **GRI 11: 11.2** Climate adaptation, resilience, and transition	Exploration, development, gathering and processing	Local communities, product end users

KEY ISSUE	GRI STANDARD	RELEVANT VALUE CHAIN STAGE	AFFECTED STAKEHOLDERS
Environment			
Spill prevention and management; asset integrity	**GRI 303:** Water and Effluents 2018 **GRI 11: 11.6** Water and Effluents **GRI 11: 11.8** Asset integrity and critical incident management	Exploration, development, gathering and processing	Employees, contractors, and local communities
Water quality, sourcing and wastewater management	**GRI 303:** Water and Effluents 2018 **GRI 11: 11.6** Water and Effluents	Exploration, development, gathering and processing	Local communities
Wellbore integrity	**GRI 303:** Water and Effluents 2018 **GRI 413:** Local Communities 2016 **GRI 11: 11.8** Asset integrity and critical incident management	Exploration and development	Local communities
Communities			
Community health and wellness	**GRI 413:** Local Communities 2016	Exploration, development, gathering and processing	Local communities
Economic impact in local communities	**GRI 203:** Indirect Economic Impacts 2016 **GRI 413:** Local Communities 2016 **GRI 11: 11.14** Economic Impacts **GRI 11: 11.15** Local Communities	Exploration, development, gathering and processing	Local communities
Impacts on community infrastructure and quality of life	**GRI 203:** Indirect Economic Impacts 2016 **GRI 413:** Local Communities 2016 **GRI 11: 11.14** Economic Impacts **GRI 11: 11.15** Local Communities	Exploration, development, gathering and processing	Local communities
Proactive community engagement	**GRI 413:** Local Communities 2016 **GRI 11: 11.15** Local Communities	Exploration, development, gathering and processing	Local communities
Workforce			
Health and safety	**GRI 403:** Occupational Health and Safety 2018 **GRI 11: 11.9** Occupational Health and Safety	Exploration, development, gathering and processing	Employees and contractors
Talent attraction, retention, development and career transitions	**GRI 401:** Employment 2016 **GRI 404:** Training and Education 2016 **GRI 11: 11.10** Employment Practices	Exploration, development, gathering and processing	Employees and contractors
Diversity and inclusion	**GRI 405:** Diversity and Equal Opportunity 2016 **GRI 11: 11.11** Non-discrimination and Equal Opportunity	Exploration, development, gathering and processing	Employees
Managing contractors	**GRI 414:** Supplier Social Assessment 2016 **GRI 11: 11.10** Employment Practices	Exploration, development, gathering and processing	Contractors

The following topics in GRI 11: Oil and Gas Sector 2021 were determined to be not material:

GRI 11: 11.3 Air emissions

GRI 11: 11.4 Biodiversity

GRI 11: 11.5 Waste

GRI 11: 11.7 Closure and rehabilitation

GRI 11: 11.12 Forced labor and modern slavery

GRI 11: 11.13 Freedom of association and collective bargaining

GRI 11: 11.16 Land and resource rights

GRI 11: 11.17 Rights of indigenous peoples

GRI 11: 11.18 Conflict and security

GRI 11: 11.19 Anti-competitive behavior

GRI 11: 11.21 Payments to governments

U.S. Equal Employment Opportunity Commission EEO-1 Report Data

We track employee demographic data, including gender, race and ethnicity, and publish our EEO-1 Report annually. We will update this data as relevant based on our final 2022 EEO-1 report after submission to the U.S. Equal Employment Opportunity Commission (EEOC). A copy of our 2022 EEO-1 Report to the U.S.EEOC will be provided on our website when available.

Employment Data

Job Categories	Hispanic or Latino		Not Hispanic or Latino — Male						Not Hispanic or Latino — Female						Overall Totals
	MALE	FEMALE	WHITE	BLACK OR AFRICAN AMERICAN	NATIVE HAWAIIAN OR PACIFIC ISLANDER	ASIAN	AMERICAN INDIAN OR ALASKAN NATIVE	TWO OR MORE RACES	WHITE	BLACK OR AFRICAN AMERICAN	NATIVE HAWAIIAN OR PACIFIC ISLANDER	ASIAN	AMERICAN INDIAN OR ALASKAN NATIVE	TWO OR MORE RACES	
EXECUTIVE / SR OFFICIALS & MGRS			11						1						12
FIRST / MID OFFICIALS & MGRS	5	1	200	2		2	1	2	37	3				1	254
PROFESSIONALS	20	23	164	7	1	10		3	98	14		6			347
TECHNICIANS	4	5	14	1					21	1				1	46
ADMINISTRATIVE SUPPORT	1	3	3	1					12	3				1	24
CRAFT WORKERS	14		388	14			3	6	1						426
OPERATIVES	1		7				1								9
TOTAL	45	32	787	25	1	12	5	11	170	21		6		3	1,118
PREVIOUS REPORT TOTAL	30	21	643	18	2	13	3	13	164	13		9		3	932

American Exploration & Production Council AXPC ESG Metrics Template

Greenhouse Gas Emissions	2022
Scope 1 GHG Emissions (METRICS TONS CO_2e)	1,283,972
Scope 1 GHG Intensity Scope 1 GHG Emissions (METRIC TONS CO2E)/GROSS ANNUAL PRODUCTION AS REPORTED UNDER SUBPART W (MBOE)	4.11
Percent of Scope 1 GHG Emissions Attributed to Boosting and Gathering Segment	0%
Scope 2 GHG Emissions (METRIC TONS CO_2e)	3,640
Scopes 1 & 2 Combined GHG Intensity (SCOPE 1 GHG EMISSIONS (METRIC TONS CO_2e) + SCOPE 2 GHG EMISSIONS (METRIC TONS CO_2e))/GROSS ANNUAL PRODUCTION AS REPORTED UNDER SUBPART W (MBOE)	4.11
Scope 1 Methane Emissions (METRIC TONS CH_4)	14,319
Scope 1 Methane Intensity Scope 1 Methane Emissions (METRIC TONS CH_4)/GROSS ANNUAL PRODUCTION – AS REPORTED UNDER SUBPART W (MBOE)	0.05
Percent of Scope 1 Methane Emissions Attributed to Boosting and Gathering Segment	0%
Flaring	
Gross Annual Volume of Flared Gas (MCF)	-
Percentage of gas flared per Mcf of gas produced Gross Annual Volume of Flared Gas (Mcf)/Gross Annual Gas Production (MCF)	0.00%
Volume of gas flared per barrel of oil equivalent produced Gross Annual Volume of Flared Gas (Mcf)/Gross Annual Production (BOE)	-
Spill Intensity Produced Liquids Spilled (Bbl)/Total Produced Liquids (MBBL)	0.003
Water Use	
Freshwater Intensity Freshwater Consumed (Bbl)/Gross Annual Production (BOE)	0.22
Water Recycle Rate Recycled Water (Bbl)/Total Water Consumed (BBL)	7.7%
Does your company use WRI Aqueduct, GEMI, Water Risk Filter, Water Risk Monetizer, or other comparable tool or methodology to determine the water stressed areas in your portfolio?	Yes
Safety	
Employee TRIR # of Employee OSHA Recordable Cases x 200,000 / Annual Employee Workhours	0.42
Contractor TRIR # of Contractor OSHA Recordable Cases x 200,000 / Annual Contractor Workhours	0.35
Combined TRIR # of Combined OSHA Recordable Cases x 200,000 / Annual Combined Workhours	0.37

Supporting Data	2022
Gross Annual Oil Production (BBL)	54,566,727
Gross Annual Gas Production (MCF)	2,049,584,570
Gross Annual Production (BOE)	396,164,155
Gross Annual Production (MBOE)	396,164
Gross Annual Production – As Reported Under Subpart W (MBOE)	312,613
Total Produced Liquids (MBBL)	86,721
Produced Liquids Spilled (BBL)	291
Fresh Water Consumed (BBL)	88,745,846
Recycled Water (BBL)	7,454,161
Total Water Consumed (BBL)	94,392,715
Employee OSHA Recordable Cases	5
Contractor OSHA Recordable Cases	13
Combined OSHA Recordable Cases	18
Annual Employee Workhours	2,353,186
Annual Contractor Workhours	7,384,592
Methodology	**Actuals**
Annual Combined Workhours	9,737,778