



NATURAL GAS  
*FORWARD*

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## ABOUT THIS REPORT

This annual corporate responsibility (CR) report was prepared by our cross-disciplinary reporting team, with assistance from subject matter experts from across the company. It was reviewed and approved by Southwestern Energy Company's (SWN) Executive Leadership Team and the Health, Safety, Environment & Corporate Responsibility Committee of the Board of Directors.

Since 2013, we have published an annual corporate responsibility report. Since 2015, our CR report has aligned with the Global Reporting Initiative (GRI) Standards requirements, and this report is in accordance with the GRI Standards at the Core level. (An appendix containing the GRI index and reporting boundaries is included with this report.) Our reporting is also guided by the Sustainability Accounting Standards Board's (SASB) standards for Oil and Gas Exploration and Production, the Task Force on Climate-related Financial Disclosures (TCFD) and several other reporting frameworks and scorecards relevant for our industry.

**We are pleased to share our latest programs and performance, and we welcome your feedback.**

### Cautionary Note Regarding Forward-Looking Statements

This document includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements regarding our ESG goals, commitments, and strategies and other ESG related information. We may use words such as "anticipate," "intend," "plan," "project," "estimate," "continue," "potential," "should," "could," "may," "will," "objective," "guidance," "outlook," "effort," "expect," "believe," "predict," "budget," "projection," "goal," "forecast," "model," "target" and similar expressions to identify forward-looking statements. These statements involve risks and uncertainties. Actual results could differ materially from any future results expressed or implied by the forward-looking statements for a variety of reasons, including due to the risks and uncertainties that are discussed in our most recently filed periodic reports on Form 10-K and subsequent filings on Form 10-Qs, and Form 8-Ks. We assume no obligation to update any forward-looking statements or information, which speak as of their respective dates.

# Message From the CEO

Dear Stakeholders,

**As one of the largest producers of natural gas in the country, Southwestern Energy Company (SWN) is well positioned to help address the intertwined challenges of securing both domestic and global energy needs while supporting a lower-carbon future.**

Our strategic acquisitions in 2021 enhanced our ability to support the central role of natural gas in the global energy transition and demonstrate the integration of our Environmental, Social, Governance (ESG) and business strategies. These acquisitions in the Haynesville basin expand our reserves in one of the lowest-emissions basins in the world and increase our access to global liquified natural gas (LNG) markets, further strengthening the sustainability of our business.

We believe our natural gas assets and our focus on being a low-cost, low-emissions operator support a lower-carbon future and help ensure SWN will remain resilient in that future. As illustrated by our recently updated climate scenario analysis, virtually all of our assets remain producible through 2050 even in a net-zero future.

Our approach to ESG, which informs all of our decisions, is focused on three key areas. First, we are working responsibly to secure the role of natural gas in a lower-carbon future, including through reducing our own emissions. Second, we seek to ensure a safe and inclusive workplace for employees and contractors and positively impact the communities in which we live and work. And we seek to create sustainable value through proactive enterprise risk management, accountability, and transparency.

### Advancing a Legacy of Environmental Performance

We have a long track record of strong environmental performance and leadership. We set our first long-term emissions target in 2014, as a founding member of the ONE Future Coalition, committing to reduce our methane intensity to less than 0.28% by 2025, and by 2015 were already well below that target.

As part of our belief in continuous improvement, we have included a methane intensity reduction target in our annual bonus program for the last two years. In 2021, we exceeded our goal and in 2022 we committed to reduce methane intensity by at least another 10%.

Building on this legacy of a long-term commitment to reduce emissions and following the integration of two strategic transactions in 2021, we are announcing a new goal to reduce Scope 1 greenhouse gas (GHG) intensity and absolute emissions 50% by 2035 (see [page 28](#) for additional information on this goal). We are committed to achieving the vast majority of the progress toward this target through direct reductions in operational emissions in the communities where we live and work.

*This goal puts SWN on a path to achieve net-zero emissions by 2050, consistent with limiting the increase in average global temperature to 1.5 degrees Celsius.*

Our legacy of strong environmental leadership is also based on our commitment to minimizing the impact our operations have on local water resources. In 2014, we set a goal of being fresh water neutral, returning more fresh water back to the environment than we consume. In 2021, we achieved our sixth year of fresh water neutral operations, having delivered nearly 16 billion gallons of fresh water to local communities — which was more than we consumed over those six years.

*We are the first and only company in our industry to achieve and sustain fresh water neutral operations.*

### We Are Powered by People

From our drilling sites to our boardroom, protecting the health and safety of our employees, contractors and communities underpins every decision we make. We have reduced the employee and contractor Total Recordable Incident Rate (TRIR) by 40% in the past five years.

We also recognize the importance of fostering a diverse and inclusive environment throughout our company, starting at the top. In 2021, 44% of our Board of Directors was diverse (two

women, one Native American and one French national). We are also working to expand the diversity of our workforce and are proud that 36% of our new hires in 2021 were from underrepresented populations.

### Strong Governance Is the Foundation of Our Success

Strong governance systems support our unwavering commitment to ethics, integrity, transparency and model corporate citizenship.

SWN's Board of Directors works closely with our management Team to oversee ESG matters, including addressing related risks and opportunities. Our executive and employee compensation is linked to ESG metrics including safety, spills and — new in 2021 — methane intensity. This report, our 9th annual, demonstrates our dedication to transparency. We have continually expanded and enhanced our disclosures based on stakeholder interests. This year's report includes increased alignment with the Task Force on Climate-related Financial Disclosures (TCFD).

Our business and ESG success would not be possible without the hard work and ingenuity of our team. SWN employees and contractors are among the best in the industry, and we appreciate their dedication to our company, our communities, each other and the environment.

Sincerely,

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.

$$\frac{R^2}{A} \rightarrow V^+ \text{®}$$



## People

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



## HSE

We protect people and preserve the environment



## Integrity

Our actions are authentic and engender trust



## Resilience

We persevere, recover and adjust



## Ownership

We are responsible and accountable for our actions



## Collaboration

Together, we learn and achieve enhanced results



## Innovation

We innovate through agile learning and applying new ideas

## ESG Highlights

### ENVIRONMENTAL

#### Air



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



#### Scope 1 & Scope 2

GHG emissions disclosed in 2021-2022 report

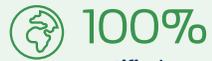


year-over-year reduction in methane intensity companywide



#### 0%

routine flaring of associated natural gas eliminated as of December 31, 2021



certified responsibly sourced gas by year-end 2022



#### 100%

continuous methane emissions monitoring by 2024

#### Water



#### 15.7B

gallons of fresh water returned to the environment



#### 6th

year in a row achieving fresh water neutrality



#### 11

major water conservation projects completed with governmental agencies, NGOs and local community organizations as of the publication date of this report

### GOVERNANCE



#### 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 this report to align with four core TCFD pillars



#### Climate

Update climate scenario analysis biannually



#### Accountability

Methane intensity target included in compensation program

### SOCIAL



#### 100%

participation in 16-hour Officer diversity and inclusion (D&I) training program in 2021



#### 36%

of new hires in 2021 were ethnically or gender diverse



#### 90%

participation in 2021 employee survey



#### 100%

average women's salaries to average men's salaries in 2021\*



#### 23%

of employees are women



#### \$642M+

paid in taxes and fees over the last five years



#### 40%

reduction in TRIR in the past five years



#### \$2.2B

in royalties paid to mineral owners since 2017

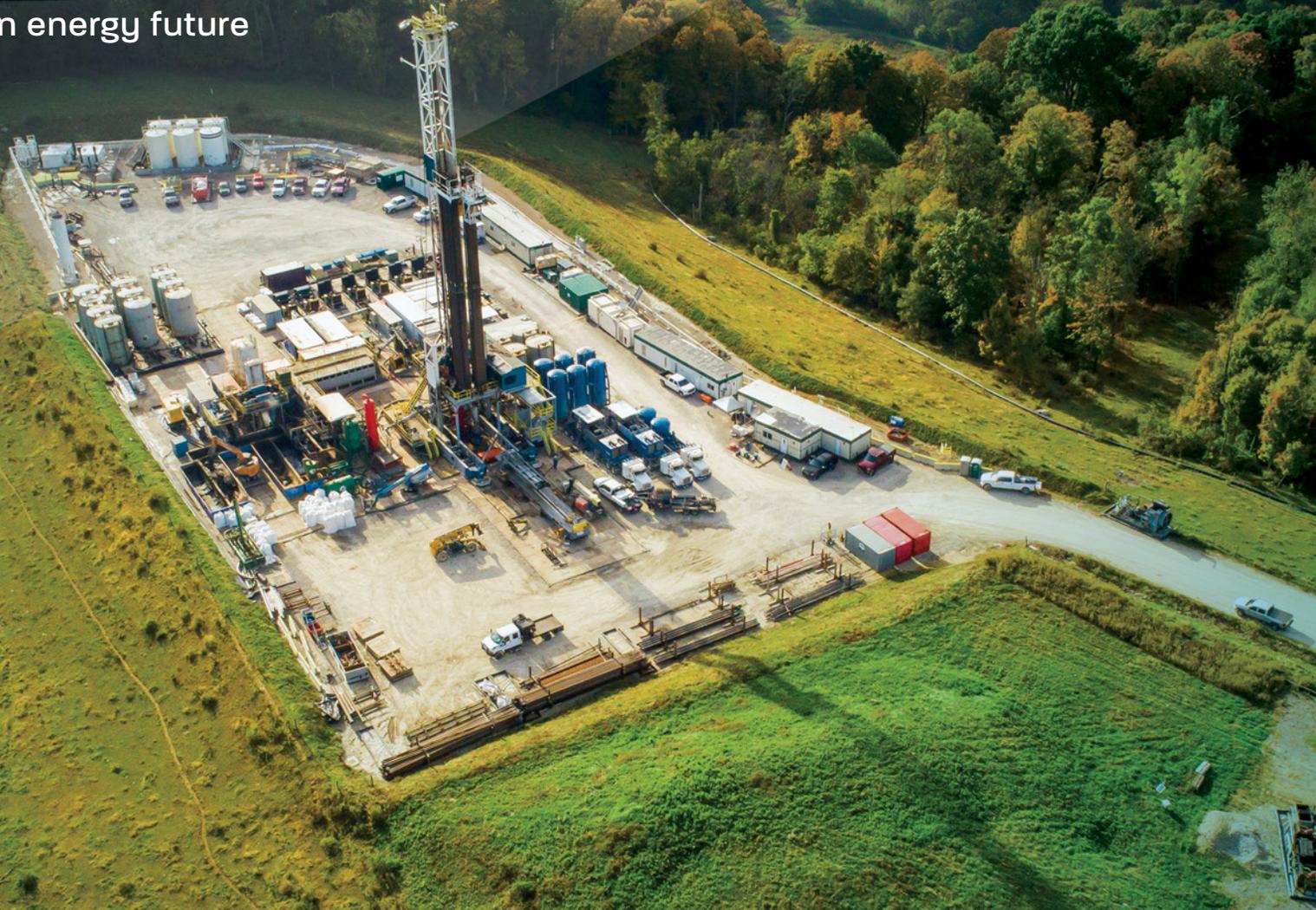
\*Considers the average pay of men to the average pay of women with the same job title.

\*Two directors are women; one director is nationally diverse; one director is ethnically diverse.

# Strategy

Delivering responsibly sourced natural gas for a lower-carbon energy future

**swn**  
Southwestern Energy®



# Our Strategy

As one of the country's leading natural gas producers and marketers, SWN works responsibly to secure the role of natural gas in a lower-carbon future. Through large-scale asset development in the two premier U.S. natural gas basins, access to premium U.S. and global markets, and the dedication and determination of its people, SWN delivers long-term value to its shareholders through resilient free cash flow generation. In 2021, SWN delivered strong results based on a business plan designed to further strengthen the Company. Closing on two strategic acquisitions that marked the Company's entry into Haynesville — one of the lowest-emissions natural gas basins in the world — we materially increased our scale, enhanced our free cash flow generation capability, and increased the resiliency and sustainability of the Company.

## 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
- Extend debt maturity, lower debt cost and expand liquidity



### Capture Tangible Benefits of Scale

- Build a competitive advantage through scale
- Large-scale asset integration; Haynesville integration
- Capture synergies, deepen economic inventory, cost efficiencies through the cycle, expand opportunity set, lower enterprise risk and increase the optionality of the business



### Progress Leading Execution

- Operate with HSE/ESG as core values
- Build on data analytics, emerging technology, strategic sourcing, stringent cost management, vertical integration, and large-scale asset development expertise
- Further enhance well performance, optimize well costs and reduce base decline
- Grow margins and secure flow assurance with commercial and marketing arrangements

# ESG Strategy

We believe that our approach to Environmental, Social and Governance (ESG) topics, which is integral to our corporate strategy, is a key differentiator for our business. Our ESG approach is governed by the following principles 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.



## Sustainable Value

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



## Minimizing Carbon Footprint

Sustainable and responsible natural gas development is foundational to a lower-carbon energy future.



## Social Responsibility

Protecting the health and safety of our workforce, recognizing their personal value, treating everyone with dignity and respect, and positively impacting the communities in which we work and live.

## About Our Business

Founded almost a century ago, Southwestern Energy is a leading U.S. producer of natural gas and natural gas liquids focused on responsibly developing core positions in the nation’s two premier natural gas basins: Appalachia and Haynesville. Our operations in Pennsylvania, West Virginia and Ohio are primarily focused on the Marcellus and Utica Shale formations. Our operations in Louisiana, acquired in 2021, are primarily focused on the Haynesville and Bossier formations. We also operate drilling rigs and pressure pumping services.



# Key Issues

In 2021, we updated our materiality assessment to incorporate our post-acquisition operations and evolving stakeholder views on ESG issues. Based on these engagement efforts, we identified the following as our most important issues:



## Economic Performance

Company financial strength • Shareholder return • Commodity price volatility • Return of capital



## Governance

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



## Workforce

Health and safety • Managing contractors • Diversity and inclusion (D&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



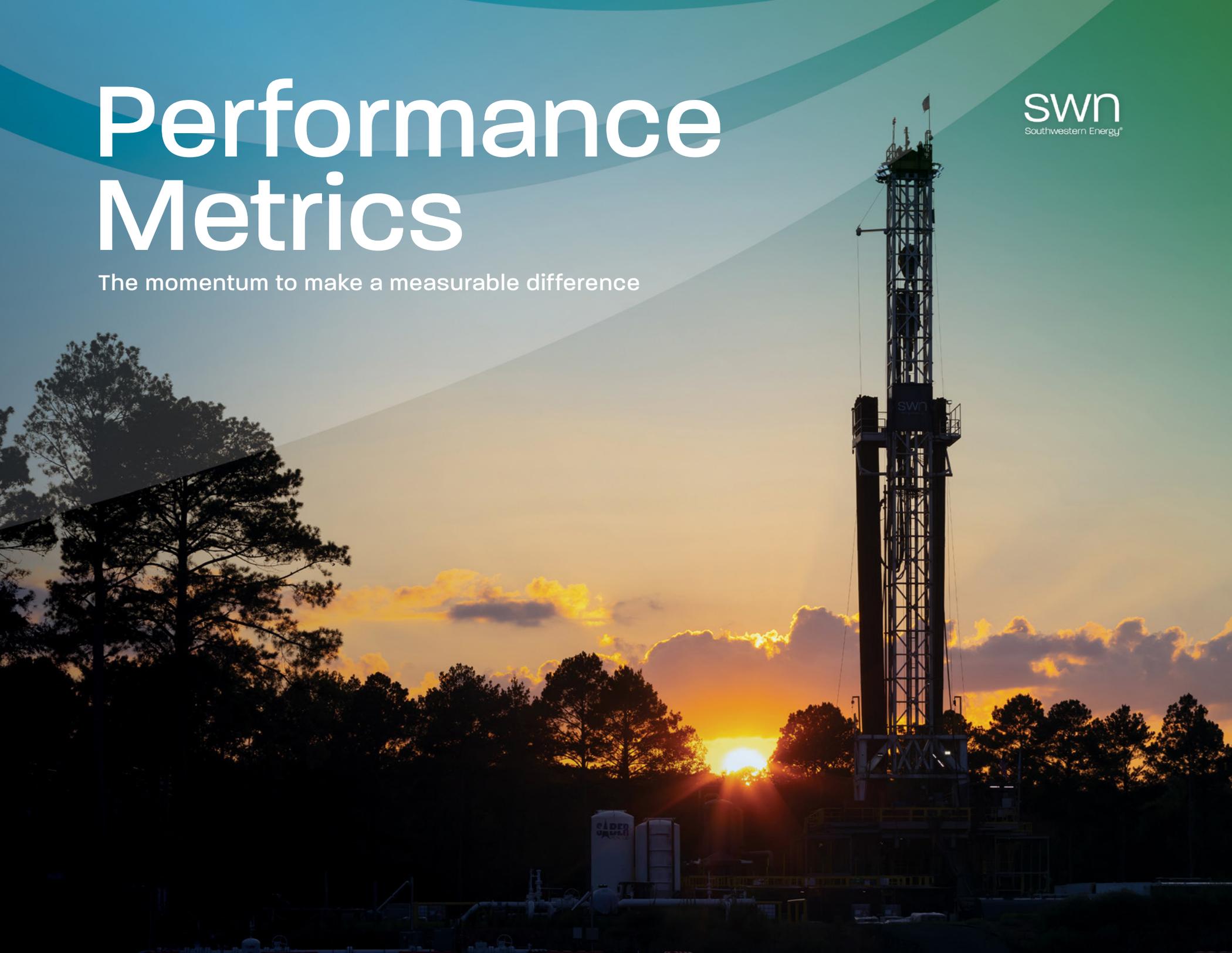
## Communities

Economic impact in local communities • Proactive community engagement • Impacts on community infrastructure and quality of life • Community health and wellness • Fresh Water Neutral's Impact in Communities

# Performance Metrics

The momentum to make a measurable difference

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# Performance Metrics

Key Data Summary <sup>1,2,3</sup>	2019	2020	2021
Operating Revenues millions of U.S. dollars	\$3,038	\$2,308	\$6,667
Net Production billion cubic feet equivalent (Bcfe)	778	880	1,240
Number of Gross Producing Wells <sup>4</sup>	1,721	2,591	2,904
Estimated Proved Oil and Gas Reserves <sup>4</sup> Bcfe	12,721	11,990	21,148
Net Undeveloped Acres <sup>4</sup> millions of acres	0.29	0.52	0.49
Number of Employees <sup>4</sup>	923	900	938
Total Flowback and Produced Water That We Recycled <sup>5</sup> percent	78.10%	94.90%	45.40% <sup>6</sup>
Greenhouse Gas (GHG) Emissions Intensity <sup>7</sup> kg of CO <sub>2</sub> e/million Btu of gas produced	0.52	0.86 <sup>8</sup>	0.78
Methane Intensity (Leak/Loss Rate) <sup>8</sup> percent; SWN production operations only	0.055%	0.075% <sup>9</sup>	0.055%
Total Recordable Incident Rate for Employees per 100 employees	0.33	0.22	0.11
Total Recordable Incident Rate for Contractors per 100 contractors	0.67	0.42	0.49
Total Recordable Incident Rate SWN employees plus contractors; per 100 employees	0.56	0.36	0.39

Water Use, Recycling, & Spill Metrics <sup>10</sup>	2019	2020	2021
Freshwater Withdrawal by Source <sup>11</sup> millions of barrels			
Surface Water	37.58	40.50	47.01
Groundwater	0.06	0.26	0.05
Water Utilities	0.26	0.08	0.18
Total	37.90	40.90	47.24
Total Water Sourced millions of barrels	42.80	50.30	55.26
Total Volume That Is Recycled or Reused Downhole <sup>12,13</sup> millions of barrels	7.51	9.48	8.03
Total Water Sourced That Is Recycled Water <sup>14</sup> percent	17.60%	18.90%	14.60%
Flowback and Produced Water That We Recycled <sup>15,16,17</sup> percent	78.10%	94.90%	45.40%
Cumulative Conservation and Operational Offsets <sup>18</sup> millions of barrels	69.50	57.80	47.25
Tier 1 and 2 Unplanned Discharges spills <sup>19</sup> total volume in barrels	95	36	134

GHG Emissions Metrics <sup>20</sup>	2019	2020	2021
Scope 1 GHG Emissions CO <sub>2</sub> e; thousand metric tons	516	1,057	1,548
Carbon Dioxide CO <sub>2</sub> ; thousand metric tons	292	659	1,071
Methane CH <sub>4</sub> ; thousand metric tons	8.94	15.86	19.06
Nitrous Oxide N <sub>2</sub> O; thousand metric tons	0.002	0.003	0.004
GHG Emissions Intensity <sup>21</sup> kg CO <sub>2</sub> e/MMBtu gas produced	0.52	0.86	0.78
Methane Intensity (Leak/Loss Rate) <sup>22, 23</sup> percent; SWN production operations only	0.055%	0.075% <sup>24</sup>	0.055%
Total Methane Emitted <sup>25</sup> thousand metric tons; SWN production operations only	8.94	15.86	19.06
Scope 2 GHG Emissions CO <sub>2</sub> e; thousand metric tons	-	-	5.91
Carbon Dioxide CO <sub>2</sub> ; thousand metric tons	-	-	5.89
Methane CH <sub>4</sub> ; thousand metric tons	-	-	0.00042
Nitrous Oxide N <sub>2</sub> O; thousand metric tons	-	-	0.000059

GHG Emissions by Source Categories metric tons CO <sub>2</sub> e	2019	2020	2021
Combustion Equipment	-	612,183	958,294
Natural Gas Pneumatic Devices	-	293,365	347,233 <sup>26</sup>
Dehydrators	-	63,065	44,033
Atmospheric Storage Tanks	-	28,345	86,657
Well Venting for Liquids Unloading	-	28,144	43,675
Equipment Leaks	-	15,910	32,175
Associated Natural Gas Venting and Flaring	-	7,747	5,122
Natural-Gas-Driven Pneumatic Pumps	-	6,459	26,574
Reciprocating Compressors	-	650	1,346
Flare Stacks	-	591	3,337
Blowdown Vent Stacks	-	28	0

Social Performance Metrics	2019	2020	2021
Charitable Giving <sup>27</sup> U.S. dollars	\$904,162	\$825,936	\$734,980
SWN Matching Gifts	\$361,513	\$301,228	\$187,665

Governance Metrics	2019	2020	2021
Independent Board Members	7 of 8	8 of 9	8 of 9
Board Member Diversity	50%	44%	44%
Women Board Members	2 of 8	2 of 9	2 of 9
Diverse Board Members	4 of 8	4 of 9	4 of 9
Average Tenure of Board Members	4.90	5.33	6.30

Safety Performance Metrics <sup>28</sup>	2019	2020	2021
Total Recordable Incident Rate (TRIR) for Employees per 100 employees	0.33	0.22	0.11
TRIR for Contractors per 100 contractors	0.67	0.42	0.49
TRIR — ONE Team SWN employees plus contractors; per 100 employees	0.56	0.36	0.39
Days Away Restricted or Transferred (DART) Incident Rate for Employees <sup>29</sup> per 100 employees	0.25	0.11	0.00
DART Incident Rate for Contractors per 100 employees	0.20	0.23	0.31
DART Incident Rate — ONE Team employees plus contractors; per 100 employees	0.21	0.20	0.23
Recordable Vehicle Incident Rate <sup>30</sup> per 1,000,000 miles driven by employee	1.44	0.57	1.13

Workforce Performance Metrics <sup>31</sup>	2019	2020	2021
Employees Total	923	900	938
Women	230	207	216
Men	693	693	722
Minorities and Women As a Percentage of Workforce			
Minorities	13.0%	12.0%	14.0%
Women	25.0%	23.0%	23.0%
Minorities and Women As a Percentage of Management <sup>32</sup>			
Minorities	7.0%	9.0%	8.0%
Women	19.3%	17.0%	16.0%
Employees by Age			
Under 30	14.0%	14.0%	11.0%
30-50	65.0%	67.0%	69.0%
Over 50	21.0%	19.0%	20.0%
Employees With Military or Veteran Status	8.0%	7.0%	7.0%

# Environment

swn  
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## Maximum performance-minimum impact

We believe natural gas is foundational to a lower-carbon energy future. We are working to help secure its role as a long-term, responsibly developed energy source — and enhance the resilience of our business — by responsibly producing our assets and continuously reducing our environmental footprint.

### 2021 KEY METRICS

**Eliminated  
associated  
natural  
gas flaring**

**100%**

of SWN wells to be certified as low-emissions, responsibly sourced gas by year-end 2022

**9%**

reduction in GHG emissions intensity in 2021

**6th**

year in a row of achieving fresh water neutrality



# Climate Change & Emissions

Addressing climate change is one of the greatest challenges we confront as a society. At the same time, we are facing concerns about the global supply of reliable, affordable energy, which is critical to supporting economic growth, opportunity and increased standards of living. Geopolitical conflicts have highlighted issues in the energy supply chain, and global population growth continues to drive increasing energy demands. We believe that natural gas is fundamental to addressing these intertwined challenges.

## Strategy

As a natural gas company with a long track record of responsible operations and strong emissions performance, SWN is uniquely positioned to help support a lower-carbon energy future and the global supply of reliable, secure, affordable energy.

We believe that clean-burning natural gas is foundational to a lower-carbon future. It also presents opportunities in the short term to eliminate higher-emissions energy sources around the globe while meeting the growing demand for reliable energy. The Energy Information Administration (EIA) projects global energy demand to grow by 47% over the next 30 years.<sup>33</sup> According to the EIA, global demand for coal-fired power generation increased by nearly 6% and comprised about 33% of power generation in 2021.<sup>34</sup> Switching all global coal-fired generation to natural gas would reduce global GHG emissions by more than 20%, nearly equivalent to the combined emissions of the U.S., Canada, Japan, South Korea, Australia and New Zealand. This is why we believe natural gas has an essential role to play in helping the world address the intertwined challenges of climate change and energy security. In addition, utilizing natural

gas to power industries such as electrical generation and steel production results in significantly less emissions of pollutants, including nitrogen oxides (NOx), carbon monoxide (CO), sulfur oxides (SO<sub>x</sub>) and particulate matter (PM), than coal or fuel oil plants, and essentially eliminates acid rain.

With our focus on natural gas, growing access to global LNG markets and long-term track record of being both a low-cost and low-emissions energy provider, 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. In fact, our approach to addressing the risks and opportunities of climate change is a central element of our overall business strategy: We seek to deliver affordable, reliable, responsibly produced natural gas.

This approach is central to the sustainability and resilience of our business as well as our ability to deliver value to our stakeholders. As illustrated by our recently updated scenario analysis (see [page 22](#)), thanks to our focus on low-cost and low-emissions assets and operations we are on a pathway to meet the expectations of the Paris Agreement. Approximately 97% of our assets remain producible

through 2050, even in a net-zero scenario. In addition, our emissions intensity is already well ahead of the upstream industry, and we are positioned well to achieve the intensity required by the Sustainable Development Scenario (SDS) and the Net Zero Emissions by 2050 Scenario (NZE).<sup>35</sup> Our goal to reduce GHG emissions intensity by 50% by 2035 puts us on a pathway to meet the Paris Agreement goal of keeping the global temperature rise at no more than 1.5 degrees Celsius.



**Generating Resilient Free Cash Flow**

We seek to generate resilient free cash flow through responsible development of our core positions in the two premier U.S. natural gas basins. We are now the second largest domestic natural-gas-focused producer, following three strategic acquisitions completed in 2020 and 2021. These acquisitions position the Company well to capitalize on the central role of natural gas in the global energy transition.

**Access to Domestic & Global Markets**

Our expanding access to domestic and global markets is central to our ability to support the global energy transition, advance energy security and meet growing global energy demands. Natural gas produced from our Appalachian operations can be sold in regional, national and global markets through our portfolio of low-cost transportation. With our recent Haynesville acquisitions, we expanded our global market reach with direct access to the Gulf Coast and LNG corridor. LNG will continue to play an increasingly important role in delivering the benefits of clean-burning natural gas to global markets. Approximately 65% of our total production has transport access to the growing Gulf Coast demand centers, including nearly one-third of our production being sold to the LNG markets.

With our global market reach, it is increasingly important to exceed the regulatory requirements both within the United States and abroad. Increasing regulation around the globe means that not all gas molecules will be treated the same, and SWN's efforts to reduce emissions, as well as certify and continuously monitor its wells ensure a differentiated competitive advantage and access to these growing domestic and global markets.

**Responsible, Low-Emissions Energy Provider**

The vital role of natural gas as a foundational fuel for the future can only be achieved if it is accompanied by an industry commitment to responsible energy development. This is a centerpiece of our climate and business strategies.

We have a long track record of being a responsible, low-emissions energy provider. In 2018, we were the first company in our industry to obtain a stringent, third-party certification for responsibly sourced gas, which includes requirements for robust methane emissions reduction. In 2021, we were one of the first in our industry to commit to 100% of our production being certified to this standard, which we already achieved in our Appalachian assets. We are on track to fully certify our Louisiana production by the end of 2022.

We have led the way in reducing methane emissions. Our low 0.055% methane emissions intensity rate represents a 26% year-over-year reduction for the Company as a whole compared to 2020. We also have significantly lower GHG emissions intensity than most of our industry peers, achieving a 4.56 mt CO<sub>2</sub>e/MBOE in 2021, a 9% reduction compared to 2020.

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. At this time, we remain focused on reducing our own impact while assessing the potential use of offsets in the future.

**100% of SWN Wells Certified as Low-Emissions, Responsibly Produced Gas by Third-Party**

In 2021, SWN pledged that 100% of our wells will be certified to Project Canary's TrustWell<sup>®</sup> Standard for responsibly sourced gas, including continuous emissions monitoring. As of March 2022, all our existing unconventional wells in Appalachia have been certified — 99% of them to the highest possible Platinum Standard. We are on track to complete certification of our Louisiana wells by the end of 2022.

The TrustWell<sup>®</sup> Standard provides independent third-party 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; fresh water conservation and produced-water recycling; waste and chemical management; well integrity; spill prevention; emergency response; worker safety; and community engagement. Platinum-certified facilities are more responsible than 90% of other operators.

Certification provides our stakeholders with objective and independent third-party data affirming SWN's sustainable approach to responsible natural gas production. Together with our continuous emissions monitoring systems (see page 19), well certifications provide measured, credible and verifiable evidence of our commitment to protecting the environment, our workforce and our communities.

100%

of SWN's Appalachian wells are certified through TrustWell's<sup>™</sup> responsible gas program

99%

of Appalachian wells are certified at the highest level, Platinum

## Emissions-Reduction Efforts

Reducing methane emissions has long been a target of our efforts, and we are among the leaders in our industry in this area. We have focused on reducing operational methane emissions, in particular methane leaks, because this is critical for advancing the climate competitiveness of natural gas and maximizing its contribution to addressing climate change. We are also leaders in reducing flaring, and eliminated all routine flaring of associated natural gas in 2021. As we grow through strategic acquisitions, we are committed to integrating our emissions-reduction best practices across our new operations. For example, in 2021, we reduced methane intensity for assets acquired in 2020 by nearly 25% from 0.137% to 0.103%.

Moving forward, we are increasingly focused on reducing CO<sub>2</sub> emissions from combustion and other operational activities while maintaining our strong performance on methane and flaring emissions.

In 2021, we implemented a cross-functional, leadership-level team focused on identifying and implementing high-impact emissions-reduction efforts. This group is particularly concentrating on assessing our new emissions profile and emissions-reductions pathways after SWN's significant expansion through strategic acquisitions in the past two years.

### Reducing Methane Emissions

For more than a decade, SWN has been leading the industry in reducing methane emissions. Minimizing methane emissions is a key focus for SWN. Doing so isn't just good environmental stewardship; it is good business because methane is the chief component of natural gas. Accountability for methane reductions goes all the way to the top of SWN's organization, as 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 50 companies working to reduce methane emissions 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.<sup>36</sup>

*SWN achieved our production sector ONE Future 2025 target of 0.28% seven years ago and has surpassed this target annually since. In 2021, we achieved a methane intensity of 0.055%.<sup>37</sup>*

Our ability to continually exceed this aggressive target stems from our early leadership in implementing methane emissions-reduction technologies. Additionally, we have integrated environmental stewardship — including a consistent focus on identifying and reducing sources of methane emissions — into our company culture and operations.

We are always seeking ways to further reduce our emissions, as well as encouraging others in the industry to do so. 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 — including reduced emission completions, low-emission pneumatic device replacement, 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.

Identifying and repairing methane leaks quickly across our operations is also an important element of our approach to 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 of the program

across the company, providing a single point of accountability and maintaining consistent implementation in all 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 SWN peers 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.

100%

of our operational production facilities surveyed for potential methane leaks in 2021

100%

of our compressor stations surveyed for potential methane leaks in 2021

99.7%

of identified leaks were repaired<sup>38</sup>

**The elements of our LDAR program are as follows:**

- 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 sooner.
- Leak detection surveys using optical gas imaging cameras completed at least annually. 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 leak detection surveys to help ensure repairs are made effectively and to drive improvements in maintenance and repair practices.

### Enhancing Emissions Measurement to Advance Emissions Reductions

We are improving emissions measurements across our operations and collaborating across our industry to help drive more targeted and impactful emissions-reduction efforts. For example, in 2021, we began implementing continuous methane monitoring on our well pads. This industry-leading approach will help us better measure and understand methane emissions and sources to help us more effectively target our methane emissions-reduction efforts. We are installing Canary X solar-powered continuous methane monitoring devices on all SWN pad locations in our Appalachian and Haynesville operations, and have committed to installation of them on all of our well pads by 2024.

These monitors are an element of our responsibly sourced gas certification (see [page 17](#)). Information from these monitors is collected in a dashboard, so we can assess trends daily and respond accordingly. We are also implementing detection alarms to alert personnel about methane emissions concentrations.

In 2021, we joined with industry and academic partners to advance emissions quantification, measurement, reporting and verification (QMRV) technologies and processes. As part of this effort, we are supporting the use of ground-based, drone, aerial and satellite monitoring technologies to measure methane emissions across our operations. These efforts will help us better identify emissions sources and develop more effective, targeted emissions-reduction initiatives.



*\*Pictured above is the Project Canary X-Legend.*

**Eliminating Routine Flaring**

As a natural gas producer primarily, SWN has historically had low flaring rates. Our average flaring rate over the past five years is 0.008%. 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 have committed to maintain going forward. We are working to reduce nonroutine flaring to the maximum extent feasible and 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. In 2021, we implemented a near-zero-idle fracturing fleet in our Appalachian operations. This system shuts engines off if they are standing idle for more than five minutes. We are also implementing idle reduction on fleet vehicles.

**Progress on Environmental Partnership Commitments**

<p><b>100%</b></p> <p>of manual liquids unloading processes are monitored to reduce emissions</p>	<p><b>100%</b></p> <p>of pneumatic controllers are no- or low-emission bleed</p>	<p><b>0%</b></p> <p>routine flaring of associated natural gas, which eliminates CO<sub>2</sub> and combustion criteria emissions</p>
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## Technologies/Practices SWN Uses to Minimize Emissions, by Operational Phase

### Completions and Workovers

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

### Gas Gathering/Treatment

- Engines equipped with lean emission control
- Leak detection including use of infrared cameras to identify leaks
- Flash tank vessels on glycol dehydration units
- BTEX condensers and combustion control on some glycol regeneration still vent off-gas streams
- Electric motor-driven glycol pumps
- Catalytic converters
- Air/fuel ratio controllers

### Production Activities

- Tankless facilities
- Instrument air-driven pneumatic controllers/devices and pumps
- Maintenance practices
- Low NOx burners
- Vapor capture and recovery
- Continuous leak detection, including use of infrared cameras to identify leaks and Project Canary monitors to alert the operators of 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



## Scenario Analysis

We undertake climate-specific scenario analyses as part of our efforts to understand and manage 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. We regularly undertake extensive analyses of our proved reserves development potential under a range of possible future regulatory and emissions scenarios. We performed an updated scenario analysis in 2022 using 2020 data.

The results of this analysis support the resilience of SWN's assets and operations as part of a lower-carbon future. Thanks to our focus on low-cost and low-emissions assets and operations, virtually all of our assets remain producible through 2050, even in a net-zero scenario.

*Further, our CO<sub>2</sub> emissions intensity is well below the 2020 average among oil and gas producers globally. Our goal to reduce absolute and intensity-based GHG emissions 50% by 2035 puts us on a pathway to meet the Paris Agreement goal of limiting global average temperature rise to 1.5 degrees Celsius.*

## 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.<sup>39</sup>

Following the guidance of the 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 SDS, which represents an energy demand pathway aligned with the Paris Agreement goal of maintaining global temperature increases well below 2 degrees Celsius.
- The NZE, which represents an energy demand pathway aligned with maintaining a global temperature rise of 1.5 degrees Celsius.

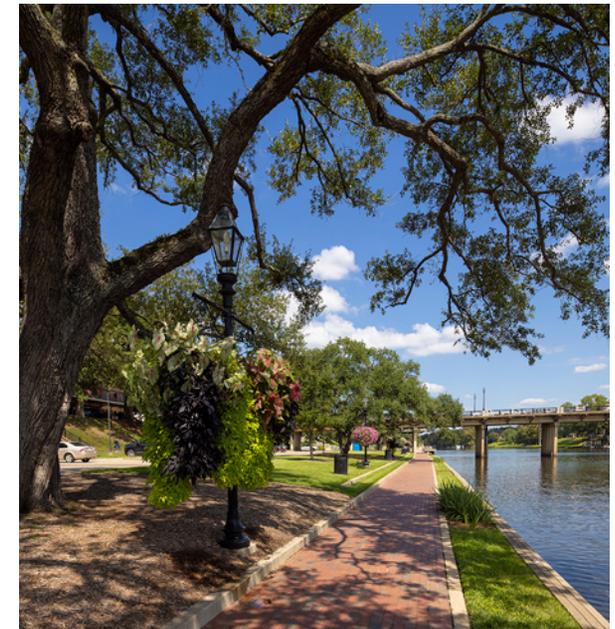
Both of these scenarios assume a reduction in fossil fuel consumption and an increase in renewables and other alternative energy sources to achieve the Paris Agreement's climate goals. Based on these scenarios, IEA developed an emissions-based "budget" for the amount of natural gas that could be produced 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 marginal 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<sub>2</sub> 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 time 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 thus they are 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, just 3% of SWN's resources are considered "out of budget" under these scenarios.*

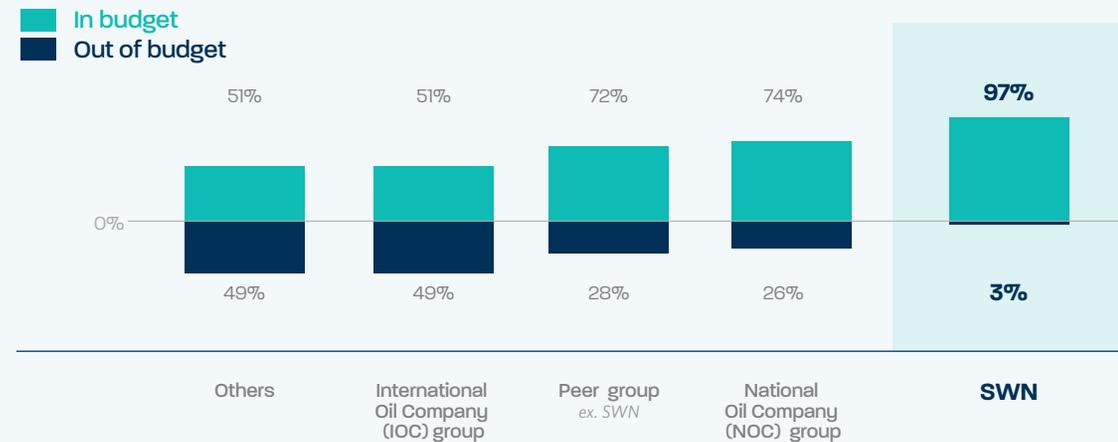
Though the NZE is a more stringent scenario, pure play natural gas producers like SWN benefit under this scenario due to a predicted decrease in the production of "associated gas," or gas that is produced in association with oil production, which leaves more of the natural gas production budget to pure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

Overall, SWN's resilience under the SDS and NZE is very strong relative to other primarily gas producers, who 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.

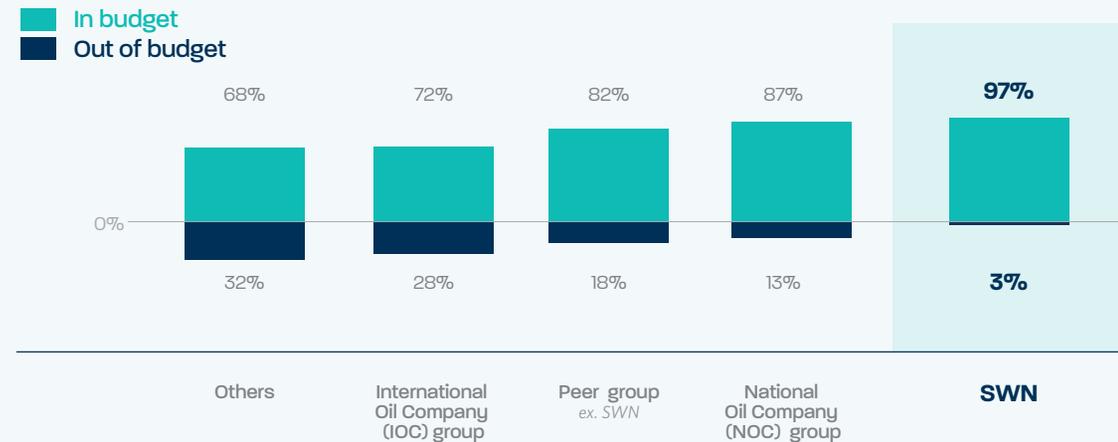
This analysis illustrates the economic viability of SWN's assets under scenarios that meet the goals of the Paris Agreement.

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

**Net-Zero Emissions by 2050 Scenario**



**Sustainable Development Scenario**

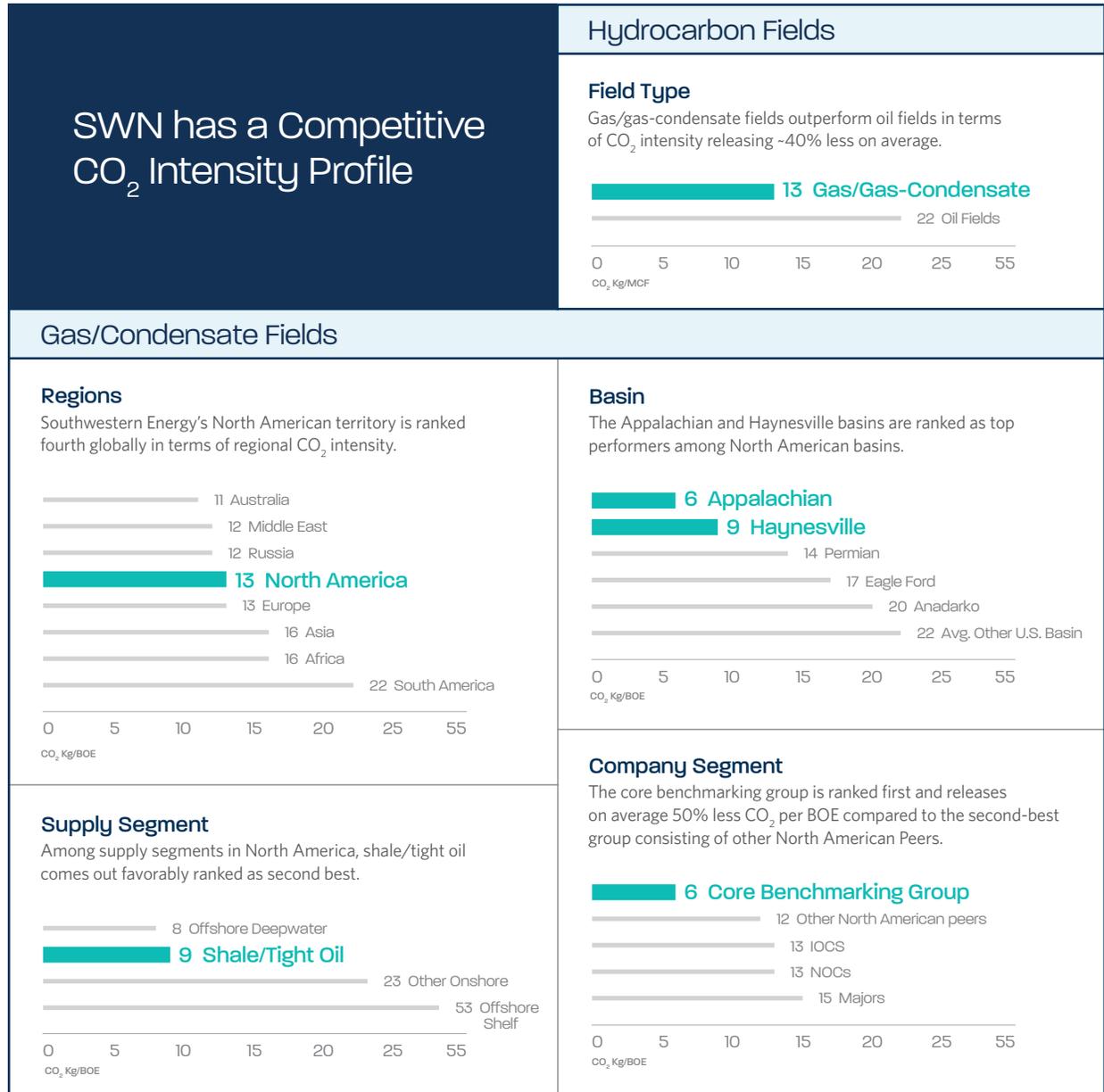


\*Includes all potential hydrocarbon production during the period; only includes upstream economics, Source: Rystad Energy research and analysis, Rystad Energy UCube

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%<sup>40</sup> 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 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<sub>2</sub> intensity than producers with other focus areas.



SWN has also been an early adopter and innovator in reducing emissions from our operations (see [page 18](#)), further improving the emissions competitiveness of our resources. SWN's 2020 CO<sub>2</sub> intensity was well below the global average of 18 kg CO<sub>2</sub>/BOE (as reflected in the chart at the bottom right of this page). This low-emissions intensity means we are nearly in alignment with the upstream production-related CO<sub>2</sub> 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.

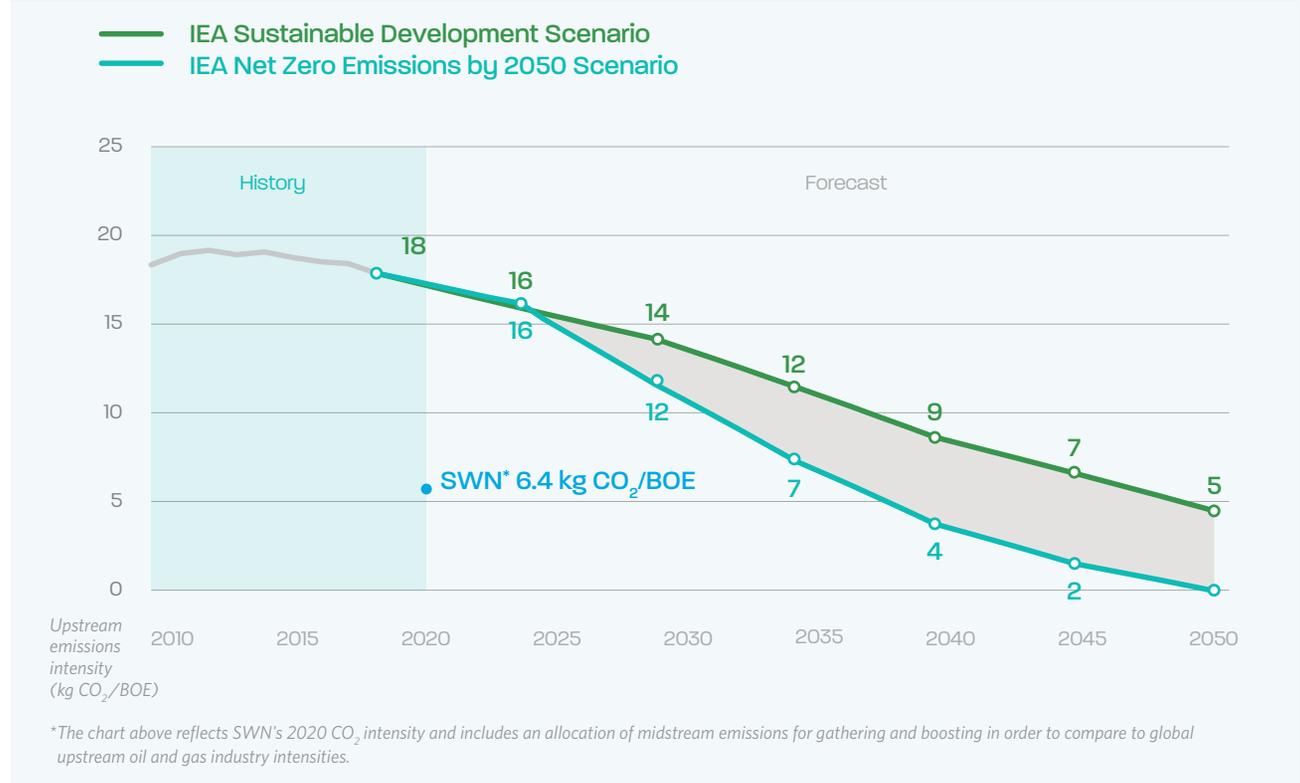


**SWN Is Not Likely To Spend Capital on Assets That Will Be "Stranded"**

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<sub>2</sub> Intensity vs. SDS and NZE Emissions Glide Paths**



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 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	<ul style="list-style-type: none"> <li>- Increased emissions regulations</li> <li>- Mandated cost of carbon</li> <li>- Enhanced emissions reporting obligations</li> </ul>	<ul style="list-style-type: none"> <li>- Increased costs</li> <li>- Reduced competitiveness of SWN's products</li> <li>- Increased cost of capital</li> </ul>	<ul style="list-style-type: none"> <li>- Proactive emissions-reduction activities to lower emissions of SWN products</li> <li>- Enhanced emissions measurement technology including continuous methane monitoring</li> </ul>
	Technological	<ul style="list-style-type: none"> <li>- Customer substitution of existing products and services with lower-emissions options</li> <li>- Costs to transition to lower-emissions technology</li> </ul>	<ul style="list-style-type: none"> <li>- Reduced demand for SWN's product</li> <li>- Reduced revenue</li> <li>- Increased costs</li> </ul>	<ul style="list-style-type: none"> <li>- Proactive investment in emissions-reduction activities</li> <li>- Focus on natural gas as lower-carbon fuel</li> </ul>
	Market	<ul style="list-style-type: none"> <li>- Changing customer behavior</li> <li>- Increased cost of raw materials (energy, water)</li> </ul>	<ul style="list-style-type: none"> <li>- Reduced demand for SWN's products</li> <li>- Increased costs</li> <li>- Repricing of estimated reserves</li> <li>- Increased cost of capital</li> </ul>	<ul style="list-style-type: none"> <li>- Proactive emissions-reduction activities to lower emissions of SWN products</li> <li>- Freshwater-reduction efforts</li> <li>- Focus on natural gas as lower-carbon fuel</li> </ul>
	Reputation	<ul style="list-style-type: none"> <li>- Shifts in consumer preferences</li> <li>- Stigmatization of sector</li> <li>- Increased stakeholder concern</li> </ul>	<ul style="list-style-type: none"> <li>- Reduced access to talent and capital</li> <li>- Increased cost of capital</li> <li>- Reduced demand for SWN's product</li> </ul>	<ul style="list-style-type: none"> <li>- Proactive emissions-reduction activities to lower emissions of SWN products</li> <li>- Transparent communication on strategy and performance</li> </ul>
Physical	Acute & Chronic	<ul style="list-style-type: none"> <li>- Increased severity of extreme weather events</li> <li>- Changes in weather patterns</li> </ul>	<ul style="list-style-type: none"> <li>- Increased operating costs</li> <li>- Reduced revenue</li> <li>- Increased cost of capital</li> <li>- Increased insurance costs</li> </ul>	<ul style="list-style-type: none"> <li>- Emergency preparedness planning in facility design and operational plans</li> <li>- Freshwater-reduction efforts</li> </ul>

## Governance

### Board Oversight of Climate-Related Topics

The Board of Directors employs a multipronged approach to oversight of climate-related risks and opportunities and the Company's response to them. The Board receives regular updates from management and outside experts on the global and domestic energy outlook. In 2021, 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.

Direct oversight of climate-related matters rests with the HSE&CR Committee of the Board of Directors. The HSE&CR Committee monitors our effectiveness in complying with our HSE Policy, which includes a commitment to reduce emissions. The committee reviews HSE targets and our performance against them, including our methane emissions targets. The 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. The committee also oversees this report.

Other Board committees are actively engaged in understanding and managing climate-related risks and opportunities and the Company's response. For example, the Audit Committee oversees the Company's ERM process, which includes consideration of climate-related risks. (See Corporate Governance on [page 72](#) for more information on our Board of Directors.) The Compensation Committee determines executive compensation metrics linked to ESG issues, which, in 2021, included a new metric related to reducing methane intensity (see [page 77](#)).

### Management Oversight of Climate-Related Topics

SWN's ESG Committee, comprised of a cross-functional team of senior executives and managers, 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 committee coordinates climate-related activities across SWN's functions and operating areas and oversees our efforts to integrate management of climate-related risk and opportunities into our business strategy and decision-making. The committee engages third-party experts on climate and climate-related risks to inform its decision-making processes.

The ESG Committee also guides the Company's efforts to identify and manage climate-related risks and opportunities, including our climate-specific scenario analysis process, and coordinates with our ERM function. 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 81](#) for more on this committee.) Our Chief Financial Officer (CFO) oversees our ERM program, which incorporates climate-related risks. Our Vice President (VP) of HSE, who reports to our Chief Operating Officer (COO), directly oversees emissions-reduction activities.<sup>41</sup>

To help drive accountability for reducing our emissions, which is a key element of our climate and business strategies, we added an emissions-reduction goal in 2021 to our executives' and all employees' annual incentive compensation metrics. Specifically, we set and achieved a goal to reduce methane intensity by 10%, including for assets we acquired in 2020. For 2022, our executives' and employees' annual incentive compensation includes a goal to reduce methane emissions intensity by another 10%.

*Executives' annual incentive compensation includes a metric to reduce methane emissions by 10%.*



## Metrics & Targets

We are committed to ongoing reductions in our GHG emissions and to transparently reporting on our progress. In 2021, we continued to improve the transparency of our reporting by including Scope 2 emissions and year-over-year data for Scope 1 GHG emissions by gas type and source. See the Performance Metrics (page 12) for full emissions performance data.

2021 Scope 2 GHG Emissions

# 5.91

thousand metric tons of CO<sub>2</sub>e

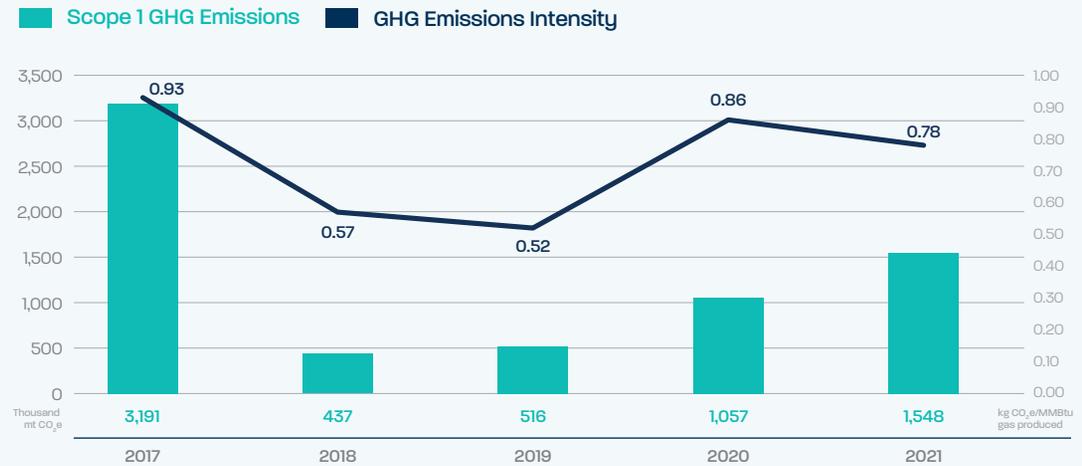
For nearly a decade, we have used methane emissions-reduction goals to drive our emissions performance. For the past seven years, we have continually remained well under the ONE Future production sector target of 0.28% methane intensity.<sup>42</sup> To further advance our performance, we committed to and surpassed a goal in 2021 to reduce methane intensity by 10%. We have set a goal to reduce methane intensity by another 10% in 2022.

*We are proud to announce a goal to reduce absolute and intensity-based Scope 1 GHG emissions 50% by 2035 as measured from the 2021 baseline.*

We set this goal following an analysis of our expanded operations, including two strategic acquisitions in 2021. We developed this target to meaningfully contribute to reducing emissions and to support the Paris Agreement goal to limit the average global increase in temperature above pre-industrial levels to well below 2 degrees Celsius.

## Scope 1 GHG Emissions

### Scope 1 GHG Emissions and Intensity



## Methane Emissions Intensity



\*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.

Our absolute 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 and would still seek to achieve our intensity target.

*This goal puts SWN 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.*

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

We are also investigating carbon capture and storage (CCS) technologies to assess their feasibility and relevance for helping us reduce our operational emissions. For example, we have entered into a commercial agreement with a midstream provider to capture, transport and sequester CO<sub>2</sub> from up to 300,000 Mcf per day of gas (after in-service of the project) from our Haynesville assets. If the CCS portion of the project becomes operational, it is expected to generate carbon offsets that can be applied to our Scope 1 emissions and result in a net reduction in emissions.

GHG Emissions Goals			
2021 Goal	Status	2022 Goal	Status
Maintain or surpass ONE Future production sector target of <b>0.28%</b>	Surpassed: <b>0.055%</b> methane intensity	Reduce absolute and intensity-based Scope 1 GHG emissions <b>50%</b> by 2035	On Track
Reduce methane emissions intensity vs. 2020 by <b>10%</b>	Achieved: <b>26%</b> reduction in methane intensity companywide	Reduce methane intensity by <b>10%</b> in 2022	On Track
Eliminate flaring of associated natural gas	Achieved	Maintain zero routine flaring of associated natural gas	On Track

Furthermore, SWN is now 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 the Ohio, Pennsylvania and West Virginia tri-state area. Appalachian Energy Future is aiming its efforts toward educating local and regional leaders and groups on the benefits of tri-state hub development and addressing important policy, regulatory and related topics. SWN joined nine other members of this alliance that connects companies from the energy, infrastructure and industrial sectors with community leaders and regional stakeholders to support the advancement of an equitable energy transition that can create opportunities for the region to flourish.

**Investing in Continuous Improvement**

Our commitment to ESG performance is evident in our growing investment in programs related to our ESG priorities, including approximately \$5 million in 2021 and up to an estimated \$20 million in 2022, which includes the following:

- \$3.9M** spent in 2021 toward our methane emissions initiatives
- \$5M** estimated spend for 2022 to continue our methane emissions initiatives
- \$2M** estimated spend for 2022 to continue our water neutrality project
- \$12M** estimated spend for 2022 and 2023 for Project Canary

# Water

SWN is committed to responsibly managing water resources, which are vital to the communities and ecosystems in which we operate as well as to our own operations. We minimize our use of fresh water as much as possible, primarily through water reuse and recycling. The centerpiece of our water management approach is our goal to be Fresh Water Neutral, which means that for every gallon of fresh water we use, we recycle that gallon through aquatic environmental conservation projects or treatment technologies that return beneficial fresh water to the environment. We have achieved this goal — which is unprecedented in the oil and gas industry — for the past six years.

## 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. SWN employs advanced analytics to optimize water usage and

recycles 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.

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. Due to our entry into

Haynesville, SWN’s overall water use increased from 2020 to 2021. SWN’s average water use per well also increased in Appalachia, attributable to increased lateral lengths and evolving fracturing fluid designs that require more water per well.

Average Water Demand per Well in 2021 by Barrel (bb)

**Appalachia** = 579,783 (bb)



**Haynesville** = 547,316 (bb)<sup>43</sup>

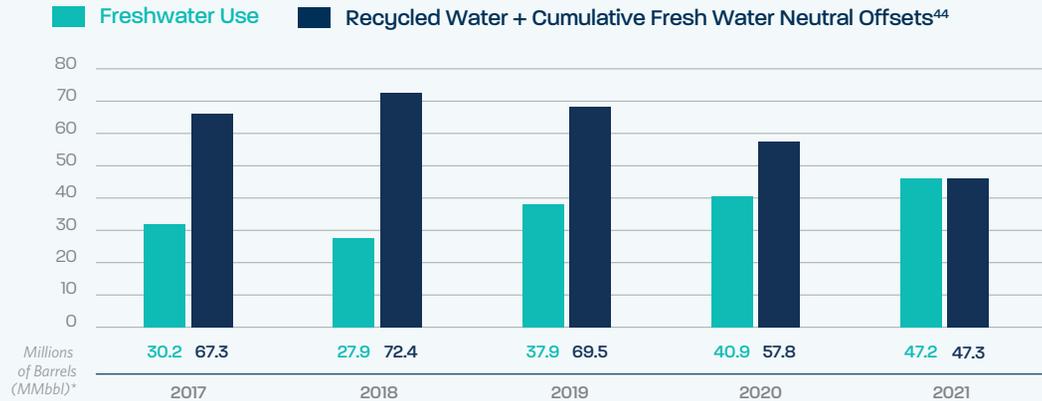


## Fresh Water Neutral

While we are among the leaders in our industry for reducing the use of fresh water through recycling and reducing water use, we take responsible water use significantly further. We are unique in our industry for our commitment to Fresh Water Neutral operations, a goal we have achieved every year since 2016. In 2022, we are integrating our newly acquired Haynesville assets into this commitment.

We believe that striving for Fresh Water 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, builds our social license to operate and helps us address potential climate-related and other water-related risks.

### Companywide Freshwater Use Compared to Fresh Water Neutral Offsets From Conservation Projects + Operational Offsets, in Millions of Barrels (MMbbl)\*



\* 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 in 2022.

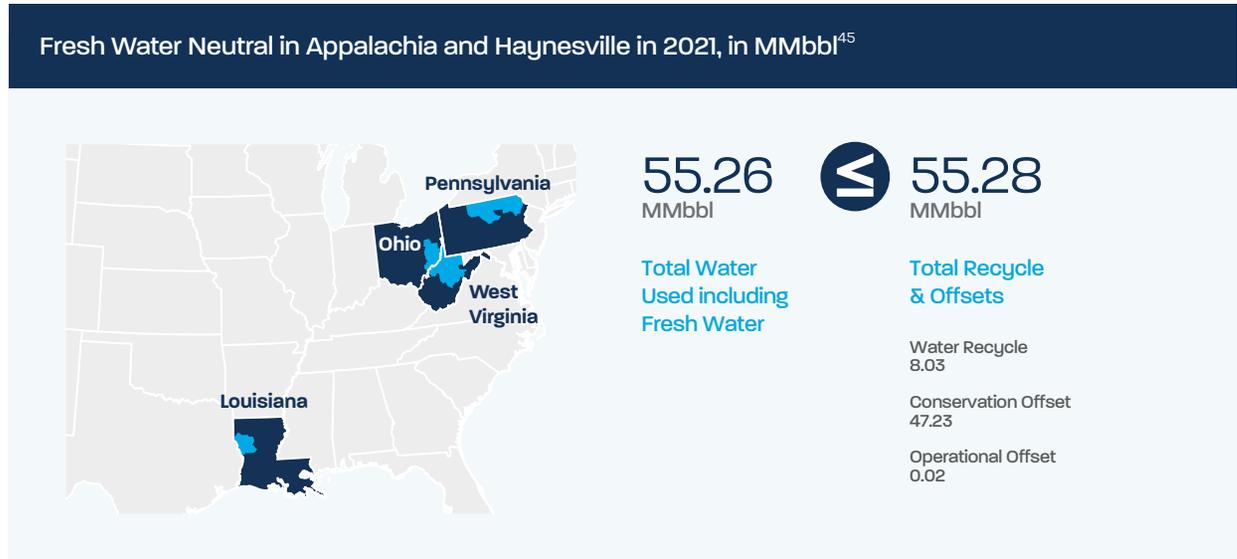
### Fresh Water Neutral Formula

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 **Fresh Water Neutral** operations.

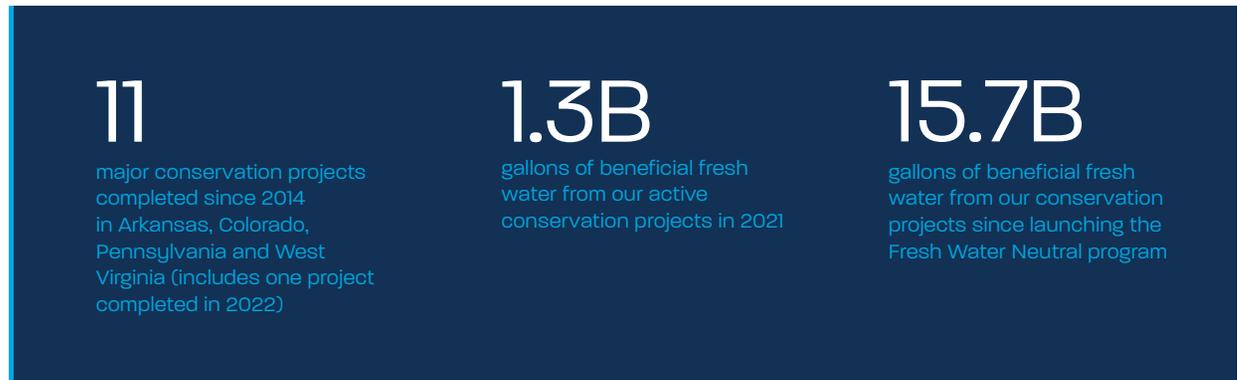


To meet our Fresh Water Neutral commitment, SWN undertakes conservation projects in our operational areas to provide the freshwater benefits that match or exceed our operational freshwater usage. We work with government agencies, nonprofit partners and local community organizations to restore wetlands, improve water quality and aquatic habitat, and contribute to natural watershed functions by protecting and increasing aquatic 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 Fresh Water Neutral program to offset freshwater usage in our operations.

SWN will identify and support freshwater projects in Haynesville watersheds moving forward. Due to regulatory limitations on the reuse of produced water in Louisiana and the challenges of quickly setting up location-specific water conservation projects for acquisitions made in 2021, we used credits from previous water conservation projects to achieve freshwater neutrality in our Haynesville assets in 2021. Moving forward, we are working to increase opportunities for produced-water recycling in Louisiana to reduce our freshwater use and identifying locally relevant water conservation projects to offset freshwater use in our Haynesville operations.



<sup>45</sup>Includes Haynesville from September 1 through December 31



## 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. We manage this produced water safely and responsibly through storage, transport, reuse/recycling and, when necessary, disposal.

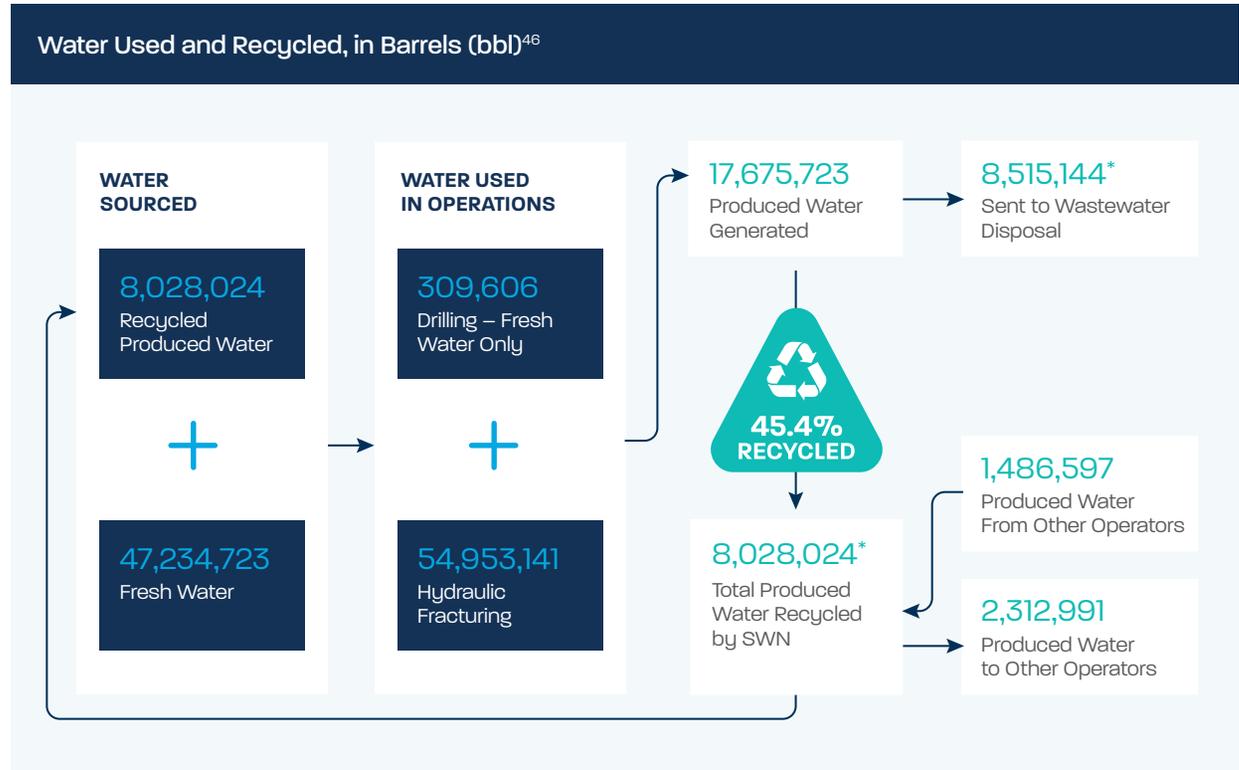
### Recycling Produced Water

We recycle produced water back into our operations as much as feasible, which reduces our need for fresh water. We have increased produced-water recycling rates across our operations through 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 64](#).)

Our ability to reuse produced water is limited in our recently acquired Haynesville and Appalachia assets due to infrastructure and regulatory limitations. However, we are taking a proactive approach to expanding water reuse infrastructure and opportunities in Louisiana, including working with other operators and industry groups to promote regulations that support water recycling and environmental responsibility across the industry.

If we are not able to reuse our produced water within our operations, we work to safely share it with others in our industry. In 2021, we shared a total of 2.3 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.

When we dispose of produced water, we do so in approved saltwater injection wells and through vetted third-party service companies. For data on our freshwater sources (i.e., surface water, groundwater and water utilities) by operating region, please see Performance Metrics on [page 11](#)).



\*Note: not a closed system sum. Includes captured rainfall that is collected and managed with produced water. Also affected by storage and operational timing.



### Produced-Water Storage and 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 berms 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 collect 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 impound it with produced water. This process is conducted in accordance with state regulations, which allow for this option when captured rainfall meets certain criteria.

### Wastewater Disposal

In the event that 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 or seawater or to municipal water treatment systems. In Louisiana, we truck our produced water to 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 2021, 8.5 million barrels of wastewater were disposed of from our primary operating areas. This amount increased compared to 2020 due to limitations on recycling water in the Haynesville assets we acquired in 2021. We are working to increase reuse opportunities for these assets.

### 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. These BMPs meet or exceed applicable regulations and are updated regularly as new technologies, practices and information become available.

Examples of BMPs include baseline water quality testing; monitoring each phase of drilling, completion and production; and verifying the mechanical integrity of steel casings.<sup>48</sup>

When planning wells, we investigate historical drilling activity in the vicinity to ensure 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 are instituting a baseline water testing program in Haynesville, beginning with wells that will be drilled in the fourth quarter. 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.

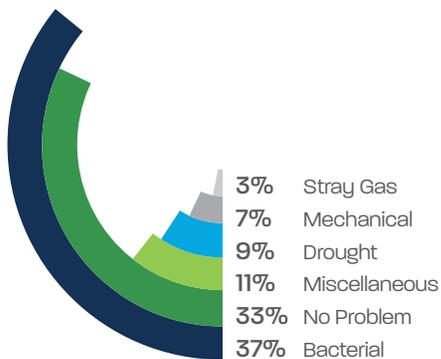


## Our Record

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 87 unconventional wells during 2021, bringing our total number of unconventional wells drilled through year-end 2021 to 5,942. Since 2005, we have recorded 263 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, 171 were in Arkansas,<sup>49</sup> 69 were in Pennsylvania, 22 were in West Virginia and 1 was in Colorado. As the chart below illustrates, investigations ultimately revealed that 33% of claims found no water quality problems<sup>50</sup> and 56% of claims were conclusively attributed to the well itself (37% bacteria,<sup>51</sup> 9% drought, 3% stray gas<sup>52</sup> and 7% mechanical failure<sup>53</sup>). 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.”<sup>54</sup>

Please see [page 62](#) for more about our approach to community engagement and concerns.

## Well Water Impairment Claim Findings



## Right Products Program

SWN’s Right Products program helps us to better understand and address any potential risks associated with fracture fluid additives. As part of this program, 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.

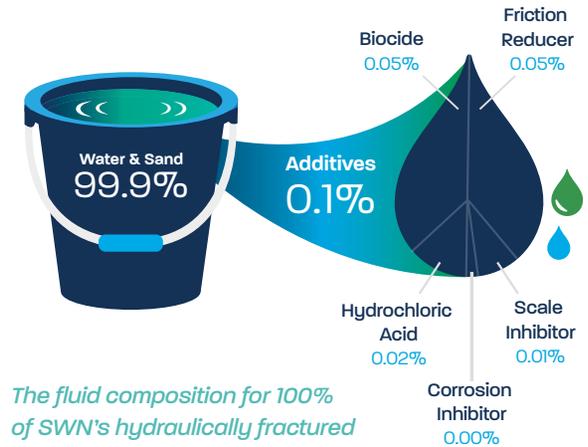
Each product is given a numerical score in the Right Products hazard assessments. Our third-party toxicologist works with our suppliers to ascertain details as to a product’s chemical makeup. SWN then receives the final score for the product and a corresponding summary report. Based on these results, 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, these decisions are elevated for senior leadership consideration.

## Right Products Program Scoring Results



## SWN’s Unique Approach to Fracturing Additives

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.



*The fluid composition for 100% of SWN’s hydraulically fractured wells is included in the voluntary [FracFocus Chemical Disclosure Registry](#).*

Source: Southwestern Energy, Ground Water Protection Council

# Land

**At SWN, we aim to be a good steward of the land and ecosystems in and around our operations. Throughout our operations, we work to minimize surface impacts, prevent spills, reduce waste and protect biodiversity.**

## Surface Impacts & Biodiversity

SWN's overall goal is to leave the land where we operate in better condition than we found it. 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 (15+ 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.

When the time comes to plug the final well on a pad, we focus on restoring the location to its original condition unless otherwise directed by the landowner. SWN employs best practices that guide the development and ultimate closure of our well pad sites and ensure we comply with applicable regulations. We set aside sufficient funds to address closure and rehabilitation.

## Preventing Spills

SWN has implemented operational practices to help ensure careful management of a variety of fluids associated with our operations, including natural gas liquids, fracturing fluid and produced water, as well as recycled water and condensate.

*We have spill prevention controls and spill response plans 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 during drilling and completion operations that are of shorter duration. 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<sup>55</sup> serve as a performance measure that affect our employees' compensation and bonuses.

In 2021, Tier 1 and Tier 2 spills totaled 134 barrels. Approximately 98% of the barrels spilled were due to two incidents. One incident was a buried pipeline with a missing plug leaking produced water. The other incident was a produced-water spill from a leaking tank.

The remainder of the spills were small spills of produced water, glycol 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.

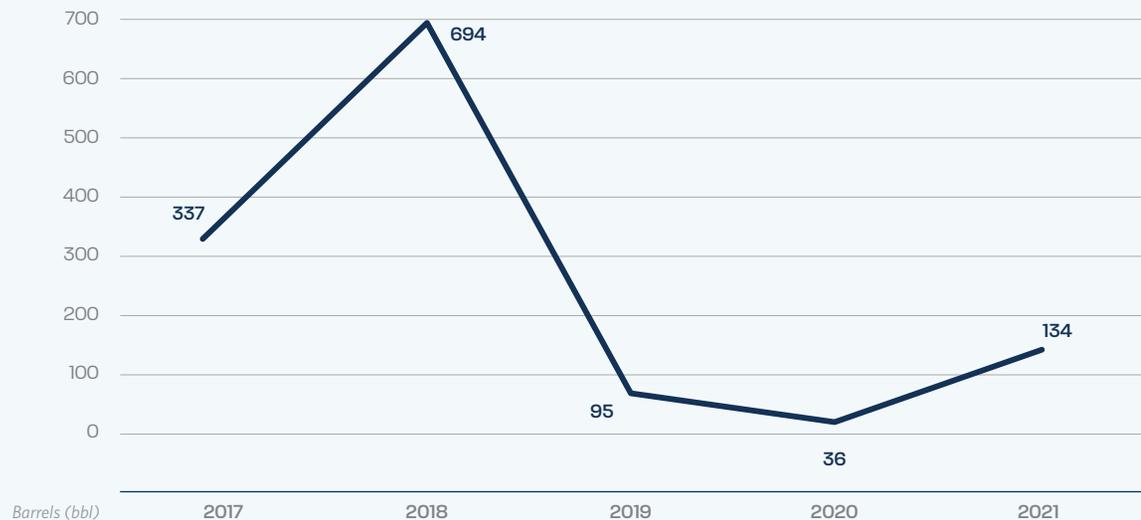
We also benchmark ourselves against our peers based on Total Produced Fluid Spill Rate (TPSR). The TPSR is calculated as the barrels of produced fluid spilled outside primary containment divided by 1,000,000 barrels of fluid produced.

## Protecting Sensitive Species & Habitats

SWN's assets overlap with the habitat of several bat species, including three listed by the U.S. Fish and Wildlife Service as endangered or threatened. In 2018, we put 50 acres of land under conservation to provide a habitat for threatened and endangered bats and installed bat boxes to encourage colonization of the area. In 2019, we began a monitoring program for bats in areas where we implemented conservation measures after operations, and that monitoring continued during 2021. Monitoring of the bat boxes will continue until 2024.

Several of the conservation efforts we have undertaken as part of our Fresh Water Neutral work have had the effect of restoring habitats for threatened or endangered species (for more information, see Fresh Water Neutral on [page 31](#)).

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



## 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 consistent approach is driven by the companywide waste management policy and individual waste management plans for each operating region. We also provide waste management and other waste-related training for all relevant personnel.

*SWN's waste management policy and plans undergo an annual review to ensure we stay aligned with any changes in state or local regulations.*

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. 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, we are unable to reuse drill cuttings in our Appalachian operating areas due to regulations; however, in 2022 we have been able to recycle drill cuttings in Haynesville. We will continue to explore beneficial use 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. See the Health & Safety section for more on how we protect our employees from NORM (HSE Programs and Training on [page 41](#)).



# Health & Safety

swn  
Southwestern Energy®

Protecting the planet starts with protecting people

Our commitment to safeguarding our employees, contractors and the communities where we operate is a core value that underpins everything we do. This commitment is supported by robust programs, tools and training to help us make sure that everyone associated with our operations returns home safely every day.

## KEY 2021 METRICS

40%

reduction in employee and contractor TRIR in the past five years

186

hazard hunts conducted with senior leadership from outside the division in 2021

169

joint SWN/contractor leadership safety meetings in 2021

16,776

hours of health, safety and environment training

# Occupational Safety

SWN prioritizes visible leadership engagement to drive continuous improvement in safety performance. Our leaders, including senior management, are evaluated on — and held accountable for — the health and safety performance of their teams. The SWN Board of Directors includes safety considerations in every business decision, and safety is never secondary to commercial concerns. (See Health, Safety & Environmental Management on [page 85](#) for more details.)

Over the past three years, our company has grown through acquisitions of Montage Resources, Indigo Natural Resources and GEP Haynesville. As our company grows through acquisitions, we are focused on integrating our health and safety practices into our new operations so that we are all working as ONE Team to adhere to SWN's high standards. Successfully, safely and efficiently onboarding the new employees and contractors and providing them with the training they need has been a central focus of our safety efforts in 2021 and early 2022.

## Safety Management Standards & Systems

Our commitment to safety is embedded in our Health, Safety and Environmental Policy and our HSE management system (see [page 85](#)), through which we operationalize this commitment.

Our safety management approach is also articulated for all employees and contractors in our HSE Handbook. This handbook lays out specific roles and responsibilities for management, employees and contractors, as well as details on internal rules, standards and regulatory requirements for occupational safety, vehicles and motorized equipment, and occupational health/industrial hygiene.

As part of our integration of new acquisitions in 2021 and early 2022, we have updated this handbook in electronic form, incorporating input from operating regions and functions across the company including regional division leaders, HSE, Operations, Human Resources, Regulatory and Legal. In 2022, we are relaunching an electronic version of the handbook along with required employee training and signed acknowledgment of the understanding of and agreement to follow handbook content. This electronic version enables us to easily revise the handbook, as we regularly update our policies and safe work procedures. As part of the HSE Handbook updating process, in 2021 we also began updating and enhancing our safety policies

and standards, which are integrated within. We began this process by conducting a gap assessment to ensure that our processes are responsive to the hazards faced by our growing company. Updates are being developed by a cross-functional operations team to integrate on-the-ground knowledge of hazards and effective mitigations. A special Executive Steering Committee was put into place to review and approve the new standards.

In 2021, we also implemented an enhanced safety management software solution that centralizes and integrates our existing standards, processes and systems into one place, including training modules; internal and regulatory inspections, assessments and audits; and incident management and corrective action tracking. The new system also automates safety-related workflows across the enterprise, including assigning roles and responsibilities. It provides increased visibility into safety performance and compliance across the company to further drive accountability and continuous improvement.

### Assurance & Assessments

Our HSE assurance process requires 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. The assurance assessments allow us to standardize and replicate best practices, as well as identify contractors with effective HSE systems. See Health, Safety & Environmental Management ([page 85](#)) and Contractor Management ([page 60](#)) for more detail.

### Incident Management

SWN uses a robust incident management system database to track, analyze, report and follow up on HSE incidents. The goal of our incident management program is to identify trends and hazards to avoid incidents before they happen.

We analyze recordable incidents by type so that we can determine the most common incident types and develop targeted training. We track and report on near hits as well as actual incidents as part of our proactive approach to improving HSE performance, and we share learnings across our own and our contractors' workforces. As part of this process, all critical or "high-potential" near hits undergo a formal investigation and analysis to formulate corrective actions and prevent recurrence. In 2021, 103 near hits were reported and reviewed to improve hazard identification and minimization. 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 103 near hits, four were designated as high-potential near hits that could pose a risk of high-consequence injury.



In 2021, we further enhanced our incident management program as part of an enterprise-wide safety management software update. The new software allows us to integrate tracking and reporting of incidents, safety performance data, near hits and leading indicators, including behavior-based safety observations, inspections and JSEA results, to help us more effectively assess hazards and incident root causes and identify corrective actions and lessons learned. The updated system also enhances our ability to assign and track the implementation of corrective actions to help avoid future incidents. Other benefits of the updated system include:

- Real-time data on incidents and near hits, including photos and documentation
- Real-time reporting on safety inspections and immediate sharing across the company of any identified hazards and corrective actions taken
- Immediate reporting to leadership on incidents, hazard identifications and corrective actions
- Customized and automated reports and dashboards to help advance our analytics and forecasting capabilities

### Hazard & Risk Identification & Mitigation

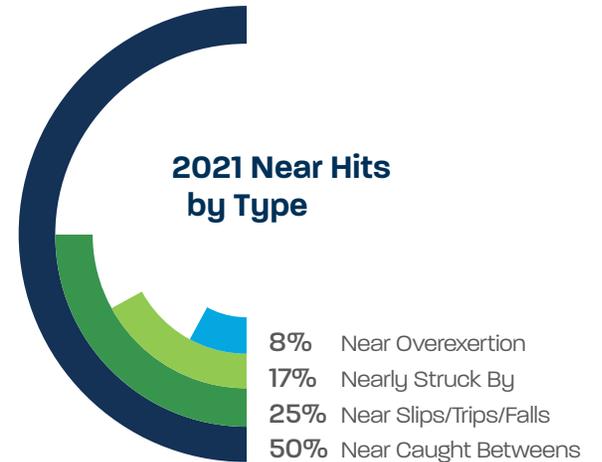
We have implemented a comprehensive suite of programs to build a culture of safety in which all our employees and contractors work together as ONE Team to keep each other safe. Empowering our people to identify and mitigate hazards and risks to avoid safety incidents before they happen is at the core of our approach.

### Behavior-Based Safety

Behavior-based safety (BBS) — or the understanding that operational safety performance is dependent on individual and team behavior — is an important foundation for our safety culture and crucial to preventing incidents from occurring. Through BBS, every SWN employee and contractor is empowered to directly protect not only their own safety, but also the safety of their co-workers, workspaces and operational sites. Individuals are trained to be

observant and identify safe and unsafe behaviors. They then are given a mechanism to engage immediately in critical conversations about the behaviors they observe.

Vital to the program is that all observations 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. This reporting initiates appropriate follow-up, including implementation of identified process improvements. We also use information gained through safety observations to identify trends and behavior patterns, mitigate risks and prevent incidents before they happen, and share lessons learned across the company. In 2021, we recorded 12,674 behavior-based safety observations.



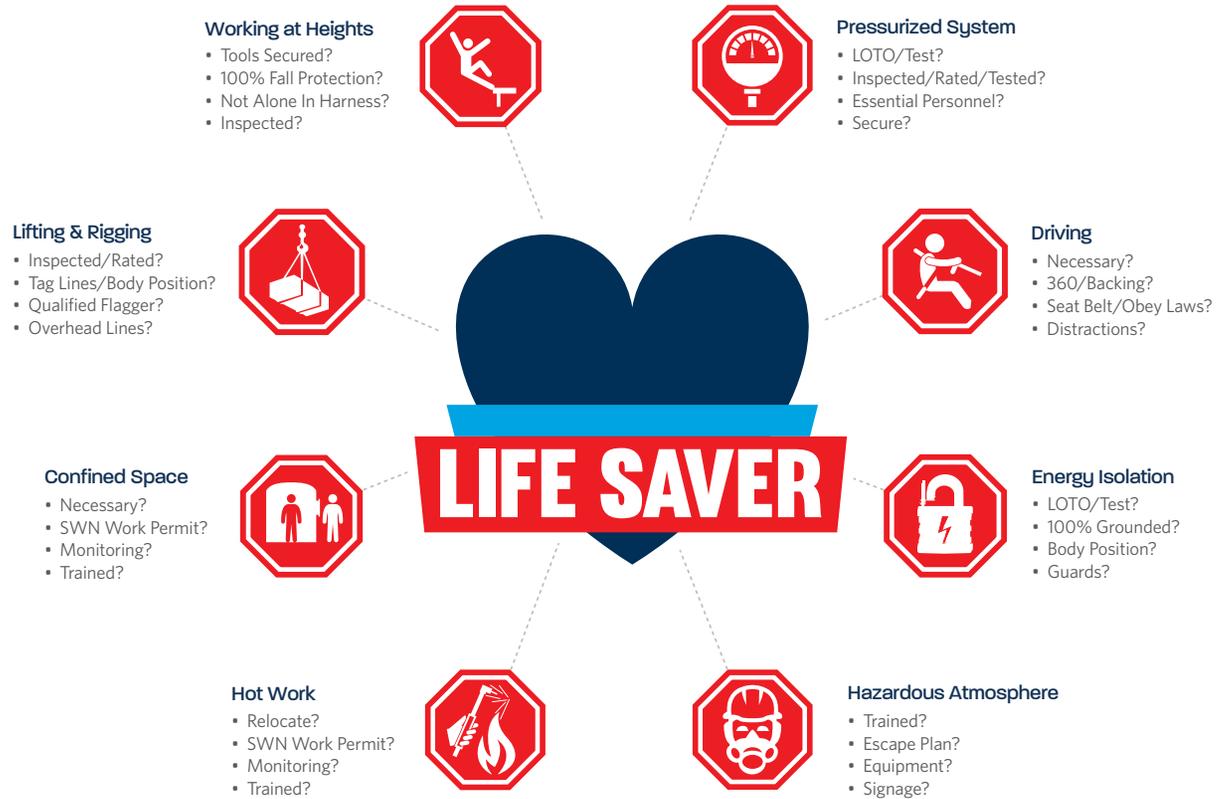
### Zero-In on Safety

In 2021, to help advance our goal of zero safety incidents, we asked all SWN employees and contractors to “zero in on safety” by creating their own personalized safety commitment focused on job-related at-risk behaviors and then producing a personalized plan to achieve their safety focus. We are tracking individual commitments and actions and sharing lessons learned across the organization.



## Life Saver Rules

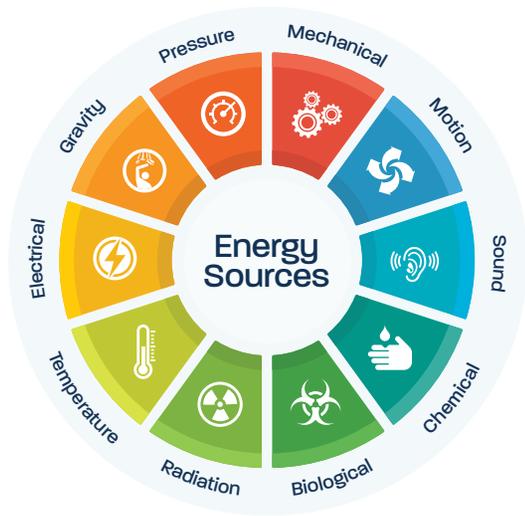
Life Saver Rules is a tool to help our team members identify work activities with higher potential risks and provide clear and concise directions on safely performing these tasks. The rules focus on the eight highest-risk activities performed daily, such as working in a confined space, hazardous atmosphere or at heights. A series of pictograms was created to remind workers of related risks and how to avoid them. These appear on stickers, tip sheets and pocket guides. SWN implemented Life Saver Rules initially in 2017, and relaunched it in 2021 to support the integration of workers from our new acquisitions.



## 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.

The tool provides a systematic way for work crews to assess the hazards related to their work task and helps SWN leadership verify that the hazards associated with any given work task have been addressed.



### Hierarchy of controls

MOST EFFECTIVE

- Elimination
- Substitution
- Engineering Controls
- Administrative Controls
- Personal Protective Equipment

LEAST EFFECTIVE

## Job Safety & Environmental Assessments

SWN's workforce undertakes Job Safety and Environmental Assessments (JSEAs) to identify, mitigate and eliminate HSE risks before beginning a job. JSEAs incorporate a range of hazard identification tools and processes including the Hazard Awareness Tool, Life Saver Rules, and checklists and standard steps to break jobs down into tasks, identify potential risks and mitigations for each element of the job, and build in pauses at appropriate times to review that the job is proceeding according to plan.

While all relevant employees participate in JSEAs, they are led by specially trained employees who help ensure the process is followed. A key component of their training is using open-ended questions and other methods to get the team engaged in the process and connected to our commitment to one another's safety. JSEA leaders provide direct support in the field, coaching in real time and a focus on higher-risk activities. A top priority for these individuals is to identify and mitigate critical hazards, especially those that can result in a serious injury or fatality.

### 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 & 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 assess applicable risks and behaviors and then report back to SWN leadership to share learnings and develop ideas for improvement. They also provide on-site HSE training, coaching and feedback to field workers.

## Safety Training

Training plays a key role in supporting our strong safety culture and performance. SWN provides a wide range of HSE training to fortify this culture.

In 2021, we integrated our safety training program into a new enterprise-wide safety management software system, which provides direct access to virtual training and allows managers to track training completions. Also in 2021, we updated our Safety Compliance Training Matrix to provide greater transparency on training expectations and requirements; this is posted on the intranet site for all employees to view.

### Safety Leadership Training

SWN's hands-on Safety Leadership Training series provides preparation, education and skills for leaders to successfully drive and improve HSE culture and performance. Topics include the importance of setting clear expectations, coaching, instilling accountability in employees and managing high-risk activities.

### Training Assurance Program

Our Training Assurance Program (TAP) is a required HSE training program for all SWN and contractor employees working in the field. In 2021, we implemented a new badging program for contractors (see Contractor Management on [page 60](#)) that shows verification of completing the TAP onboarding process. All contractors must have TAP verification embedded in their badge before entering a site.

### 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 [page 43](#)).

### Driver Safety

In 2021, SWN drivers logged approximately 6.2 million miles on company business. All employees who operate a vehicle for company business must take and pass a driver training course every two years. In addition, SWN invested in an in-vehicle monitoring and real-time feedback system for all SWN vehicles, which allows for immediate behavior modification and notifies management of recurring problems.

### Short-Service Employee Training and Mentoring

"Short-service employees" are field employees who have had less than six months of service with the 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 employees to help them understand SWN's HSE culture as well as the Company's expectations and requirements for their role. Each individual 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.

### 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 reoccurrence across all operating areas. The integrated safety management system is utilized 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.



## Occupational Safety Performance

SWN measures safety performance using a range of leading and lagging indicators. Leading indicators include metrics for training, leadership commitment, employee involvement and the quality of incident investigations. Lagging indicators include incidents, near misses and DART Incident Rate. 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 [page 42](#)). We are committed to continuous improvement and hold all employees — including senior management — accountable for this goal with year-over-year safety performance targets.

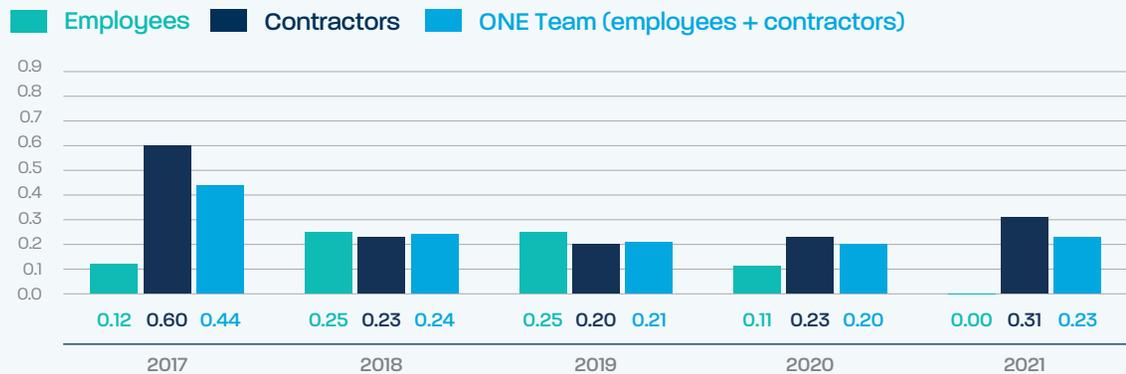
In 2021, we maintained a generally consistent safety performance, even as we were integrating new assets and people. TRIR and the DART Incident Rates for our own employees decreased significantly compared to 2020. However, these increased for contractors, offsetting these improvements in our overall ONE Team — or total workforce — rates. We are continuing to strengthen our safety programs and integration of new workers to help improve our safety performance (see [page 41](#) for information on our overall safety programs and [page 60](#) for information on contractor management).

### 2021 TRIR & DART

#### Total Recordable Incident Rate (TRIR)



#### Days Away, Restricted or Transferred (DART) Incident Rate



# 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.**

The AIM program is based on three pillars — design integrity, technical integrity and operational integrity — to help ensure assets perform the required functions safely and reliably across their life cycle. Specific elements of our AIM program across these pillars include the following:

- **Design integrity** focuses on developing designs that comply with all technical and process safety standards. SWN has built a foundation of comprehensive engineering standards that guide our design and construction processes. 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 as per code and standards. For example, we develop inspection and testing plans for fabricated equipment and undertake third-party inspections during the equipment fabrication process to confirm compliance with requirements.

- **Operational integrity** focuses on confirming that equipment is functioning within the appropriate operating envelopes and that preventive maintenance programs are in place. We undertake pre-startup safety reviews for new wells and significant modifications to existing equipment to verify that they are built and installed per design requirements. For operating equipment, we implement proactive maintenance programs and undertake risk-based inspections. Heightened focus is given to inspections of equipment or sites with higher risks for potential impact to human health and safety and/or the environment. We also use robust processes and administrative controls, such as Management of Change and documented Standard Operating Procedures.

As part of AIM, SWN focuses on continuous improvement and developing preventive and corrective actions. 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 also undertake regular audits of our AIM system. We plan to audit our asset and operational integrity program in 2022. In addition, SWN undertook asset integrity reviews and inspections as part of our recent acquisitions, including the Haynesville assets. We have since developed AIM plans for these assets.

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. The program comprises 13 core elements and SWN has committed to applying these elements to safeguard our employees, the environment and the communities in which we operate. In 2021, we undertook an internal audit and gap analysis against these elements, and we have created an ongoing plan to address gaps.

# 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. Some of our key risk management and mitigation programs include the following:

## Addressing Hydrogen Sulfide Risks

In 2021, we developed a hydrogen sulfide (H<sub>2</sub>S) program as part of the integration of our Haynesville assets, which are our first operating areas to be designated as H<sub>2</sub>S gas fields. To protect workers, we have implemented on-site H<sub>2</sub>S and wind direction monitoring and established protocols for wearing individual H<sub>2</sub>S monitors and other personal protective equipment.

## Preventing Exposure to Silica Dust

We take the following measures to reduce or eliminate worker exposure to crystalline silica dust on SWN operational sites:

- Use of appropriate equipment, including respirators.
- Use of engineering controls and best practices, which are refined and improved through ongoing evaluation.
- Use of new sand delivery methods with closed, mobile boxes that can be trucked directly to completion sites.
- Use of sand storage silos with built-in dust control as well as automated sand hoppers, closed cab blenders and improved dust control on sand belts.

In addition, we use a proactive medical surveillance program for employees with potential silica exposure that includes maintaining detailed work histories and performing physical examinations, chest X-rays and spirometry.

## Managing Naturally Occurring Radioactive Materials

NORM can be found in our operational areas. We have proactively addressed NORM in accordance with applicable federal and state regulations. Well locations at higher risk of accumulating NORM are identified, and detailed NORM management and control plans are developed as required by applicable law. Any services we use to remove or dispose of NORM are conducted by contractors and/or facilities that are properly vetted and approved in accordance with applicable law and the SWN HSE assurance process. (See the Environment section on [page 39](#) for more on NORM.)



## 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 at least annually 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 of our operating locations, involving local emergency responders as appropriate.**

We work with local emergency responders to develop preparedness, response and business resumption plans for all SWN-operated facilities. For example, as part of our integration of the Haynesville assets, we worked with local fire departments and emergency responders to set up geographic information system (GIS) locations of our wells so they will be identifiable in the event of an incident. We also provided training for first responders on topics relevant to our industry including H<sub>2</sub>S, well control and well site fires.

In 2021, we enhanced our emergency management software as part of our enterprise-wide safety management software update to improve the functionality of our emergency response program and the ability to monitor and maintain plans. This system includes an integrated database to manage frequently updated response plan information, a single-source document management system for all response plans and documentation tools to manage our emergency response program, with a “snapshot” of all plans, people responsible and date of the last update. It also includes tools to manage most emergencies and document all exercises through an interactive database-driven interface from any geographic location with system access.

SWN's Emergency Preparedness Program identifies three specific phases to emergency response — planning, response and recovery. We use an Emergency Mass Notification System (EMNS) as the hub for timely and targeted information. The system enables workers to efficiently send and receive critical information through text messages, phone calls and emails. In the event of a potentially hazardous situation, targeted notifications are sent to personnel who could be affected. The system can also be used to assess and confirm the safety status of personnel.

We have Severe Weather Assessment Teams to track severe weather in our operating areas and prepare emergency response plans for severe weather. The teams consist of a representative from each department and are facilitated by HSE. All updates and recommendations are relayed to SWN's ELT. We also utilize Severe Weather Assessment 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.

In 2021, we made several improvements to our severe weather planning tools. For example, we now have a direct connection to professional meteorologists to answer

weather questions and provide advance notice of severe weather in our target areas. They provide valuable seasonal outlooks that we integrate into our operational plans. We are also offering employees customizable, automated local weather alerts based on their location and preferences for when and how they wish to be notified.

Because the integration of our Haynesville assets has increased the risks of tropical storms for our operations, SWN now provides regular tropical weather updates throughout the active season to help make informed decisions.



# 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.**

## Health Resources

Employees have access to benefit management tools, resources and lifestyle programs to help keep them as healthy as possible. To help make important health-related decisions, SWN employees can use a dynamic questioning tool that recommends the best benefit packages for themselves 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 nurse line or through their MDLive virtual physician program.

## Well-Being Resources

SWN provides support tools by promoting general employee well-being. A few examples follow:

- Free, annual biometric and health screenings and follow-up services are offered at all SWN office locations. In addition to receiving screening results, participants are given information on the impacts of unaddressed health risks and key questions to ask their doctors.

- Weight-loss management and chronic illness programs provide employees with convenient and flexible tools to manage their care at home through our partnership with Blue Cross Blue Shield of Texas.
- Access to programs to support pregnancy and adoption assistance are provided.
- Through our confidential Employee Assistance Services program, employees receive support for themselves and their family, with access to professionals regarding topics such as child or eldercare resources, financial planning assistance, legal services, behavioral health and many others. This program allows eight annual face-to-face visits for each employee and their family members.
- Voluntary identity theft protection is provided, which includes educational resources for employee and family coverage.





## Continued COVID-19 Response

Since the COVID-19 pandemic began, many of SWN's health and well-being activities have focused on keeping our ONE Team employees, contractors and their families safe. This includes expanding health care services to implement protocols consistent with the recommendations of the Centers for Disease Control and Prevention. As the pandemic continues, we have modified our approach as conditions change.

In 2021, our ongoing response included:

- COVID-19 vaccinations on-site for all employees and their family members
- Priority testing for all employees and their family members
- Employee support call center staffed around the clock by SWN human resources specialists
- Nurse home visits
- On-site testing
- Isolation pay

See Southwestern Energy Company's [2022 proxy statement](#) for additional details on how we have responded to COVID-19.

# Workforce

**swn**  
Southwestern Energy\*

## Fostering equity and developing the next generation

We are committed to creating a safe, inclusive and nondiscriminatory workplace where all people are respected and valued. We do this by focusing on diversity and inclusion starting at the recruitment process, providing ongoing training and development and following a rigorous process for assessing and selecting contractors.

### 2021 KEY METRICS

**23%**

of employees are women

**14%**

of employees are racial/ethnic minorities

**36%**

of new hires from 2021 are diverse

**100%**

of employees receive annual performance reviews

# 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 needed to excel.**

## Recruitment & Onboarding

We recruit and select employees with exceptional technical and functional skills. But this is only part of the equation. We also look for individuals who are driven to collaborate, help deliver results as a team, show a genuine care for others and demonstrate a desire to do the Right Thing at all times.

SWN actively recruits and seeks candidates in our areas of operation as part of a commitment to hiring locally and expanding economic opportunity in our communities. We also recruit through a range of channels to attract candidates that will increase our workforce diversity. (See Diversity & Inclusion on [page 56](#) for more information on our D&I efforts.)

SWN offers summer internships to college-level candidates and uses that talent pool to fill open positions in our rotational programs. Similarly, 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.

All new employees participate in the R2 journey ("The Right People doing the Right Things"), which provides a comprehensive look at who we are as a company and the importance of our culture.

## Training & Development

Our employee development programs aim to provide SWN employees with the right tools, training and resources to be successful and grow. SWN offers a variety of training programs, including in-house training conducted by knowledgeable and experienced team members as well as external training opportunities conducted by specialists in the industry.

In 2021, we enhanced our offerings by introducing Udemy Learning, an on-demand virtual learning platform where employees can create their own learning programs based on their areas of interest. Through Udemy, employees can take both high-level technical training offerings to ensure they have the technical knowledge and skills that the business demands as well as classes to develop business acumen and leadership skills.

In addition, our numerous health, safety and environmental trainings provide opportunities to bolster employees' skills and careers while further enhancing our safe workplace. (See [page 41](#) in our Health & Safety section for more details on these programs.)

Employees also learn and grow through goal-setting and performance reviews, and employees work with their managers to set goals at the beginning of each year. SWN conducts annual reviews at every level of the Company from the field level up. Through this process leaders across functions and geographies give feedback on employees, which results in identifying high-potential employees, a critical step to our company's succession planning.



## Employee Engagement & Retention

SWN measures employee engagement through a biannual survey, which is administered by a third-party vendor. In our 2021 survey, SWN's average employee participation of 90% was well above the overall industry's participation norm, according to Arthur J. Gallagher & Co. the third-party experts who implemented our survey. The results of the survey are analyzed, and an action plan is created and implemented based on feedback from the survey. In 2021, the top strengths reflected in the survey were that employees feel trust in senior leadership to lead into the future, receive encouragement to try new approaches for greater impact and that SWN is a safe place to work.

We measure employee turnover as a key indicator of employee satisfaction. In 2021, SWN's attrition rate was 14%. We aim to help our employees build and grow their careers at our company for the long term. To this end, we are committed to providing our employees with the resources that will lead to this outcome. These include 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.

**We also offer our employees competitive wages and a comprehensive benefits plan including:**

- An attractive 401(k) plan
- Paid vacation, holidays and benefit hours
- Family medical, dental and vision insurance
- Health care and/or dependent care reimbursement accounts
- Long-term disability insurance
- Life insurance and business travel insurance
- An employee assistance program
- Educational assistance
- A matching gift program



# Diversity & Inclusion

**At SWN, we strive to ensure that every person is treated equitably and with 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 2021, SWN continued to develop its D&I strategy. This included D&I training with officers, finalizing a strategic road map and enhancing analytics of employee demographics. In the same year, SWN expanded its efforts through targeted talent acquisition to attract diverse candidates. For example, SWN partnered with ALLY Energy, an industry organization that works with companies that are committed to advancing the work of diverse talent, to actively recruit on their platform to extend our reach to talent with diverse backgrounds.

In addition, SWN is working to engage students in underrepresented areas of the country in science, technology, engineering and math (STEM) education, with a focus on educating the industry workforce of the future. 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. (See [page 67](#) for more details on local economic impacts.)

Internships are another way SWN builds a diverse workforce. This starts with university recruiting targeted at candidates from diverse backgrounds for internship positions. These interns are our candidate pool for hiring new graduates into our rotational programs. To ensure that these opportunities are open to numerous students across the country, we post our internships on our website and other sites that attract candidates from underrepresented populations. (See the Recruitment & Onboarding section on [page 54](#) for more details about our internship program.)

## D&I Survey Key Results

In 2021:

**36%**

of new hires were diverse

**43%**

of the women participants in the women's development program engaged with organizations that are supporting inclusion

We consider diversity and inclusion to encompass how we treat people as well as the opportunities we provide, which includes pay equity.

*In 2021, for the same job title, the average women salary equaled the average men salary.*

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

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

As we scale our programs, we continue to equip our leaders with the tools to understand and champion SWN's D&I vision and initiatives. This includes a D&I rollout beginning in the fall of 2022, of sessions and dialogue for directors and managers alongside our officers. In 2022, we also conducted an enterprise-wide "digital conversation" survey to get a better understanding of employees' perspectives and experiences around D&I.



## 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

A vital part of SWN's operating philosophy is fostering our ONE Team culture, which is based on the principle that everyone who does work for, or on behalf of, SWN — whether employee or contractor — must function as a team, working side by side to achieve the same goals. Due to the type of work we do, 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 doing work for SWN is held to the same high standards and understands that our respective success depends on working together.

## Working as One to Get to Zero

ONE Team is centered around Working as One to Get to Zero incidents. We do this by helping new contractors get up to speed. In past years, thanks to our strong culture of safety and our comprehensive HSE management system, SWN employees had record safety performances. But contractor safety performance had not kept pace. This led to a realization that our contractors needed a better understanding of our culture, standards and expectations. Since then, we have focused our contractor engagement and management efforts on building a culture and environment for our employees and contractors based on open and honest communication, collaboration and shared accountability for results.

## 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.

## Strengthening Our ONE Team Culture

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. SWN employees are expected to “own” their job duties and their workspaces, as well as the obligations they have to one another to work safely and make sure everyone goes home without incident. Ensuring that SWN contractors share our expectations and obligations is the essence of our ONE Team culture.

In 2021, we reinforced our commitment to this ONE Team culture by guaranteeing that all SWN contractors have the training, tools and help they need to achieve desired operational and HSE results. We also host events that necessitate SWN and contractor involvement and engagement at all levels, from employees driving

our operations in the field to senior leadership. We supplement and reinforce these official ONE Team events with dedicated contractor onboarding and one-on-one SWN/contractor meetings throughout the year that foster improved collaboration.

To ensure employee and contractor alignment on HSE issues, we continue to hold joint employee/contractor HSE meetings and other joint on-site meetings focused on specific safety topics. 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 behaviors. 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 for more information on [page 45](#).) In addition, we integrate

SWN contractors into many HSE trainings and programs, including our required Training Assurance Program (see [page 46](#)), and we offer them other safety training resources as well. (See the Health & Safety section on [page 41](#) for more information on these and other HSE efforts.)

SWN is gaining positive results from our ONE Team culture, and has observed an increased willingness to identify and discuss risks, hazards and other issues and develop solutions collaboratively.



# Contractor Management

As is common and often necessary in our industry, SWN uses contractors at field sites. True to our ONE Team culture and approach (see [page 58](#)), we seek to work with contractors who strive to be The Right People doing the Right Things. As part of SWN's contractor selection and assurance process, we rigorously screen and assess all of our contractors, holding them accountable to the high standards we demand.

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. We follow 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 perform our own assessments to hold contractors accountable for following the same HSE expectations and standards to which we hold our employees.

In 2021, as SWN acquired new assets we also successfully integrated a significant number of contractors, some new and some we had worked with before. With such a big influx of new contractors and new companies, we are working diligently to ensure that all contractors are equipped with the right trainings, qualifications and understanding of the SWN culture. In Haynesville, for instance, we have set up a local contractor management program to support those working there.

In 2021, SWN rolled out several new programs and policies to increase safety for contractors and everyone who works in proximity to them.

One such program places a greater focus on the requirement for all contractors on location to carry

scannable badges which verify training compliance with TAP in the field, provide field engagement with our contractors and provide visibility into real-time information and actions. Another program is a requirement for contracting companies that provide us with contingent workers to deliver updated training qualifications for Occupational Health and Safety Administration (OSHA) compliance and MEDIC First Aid. These trainings are provided via ISN and are verifiable by SWN.

SWN has also rolled out a tool to help gain a better idea of the subcontractors on our locations and who is responsible for them. This tool connects subcontractors with both prime contractors and SWN, providing visibility into SWN safety requirements and ensuring completion of the required TAP training. It also allows subcontractors to obtain HSE alerts, enter person-hours and connect with SWN directly for specific items. Another new program is the "working alone" policy, which requires all our contracting companies to provide a written policy or program that addresses how they ensure the safety of people who are working alone.

In 2021, we have also focused on improving case management, requiring that all of our contractors have a third-party case manager, which can help reduce the number of recordable injury counts for both SWN and contracting companies by properly assessing cases and providing proper actions.

# Communities

Empowering people to empower the planet

Being a good neighbor is foundational to how SWN does business. We seek to have a sustainable positive impact in the communities where we live and work. Our proactive approach is built around listening to residents and local leaders to help us understand and respond to their needs and concerns.

## 2021 KEY METRICS

**\$642M+**

paid in local and state taxes<sup>56</sup> and payroll in our primary operating areas of Pennsylvania, West Virginia, Louisiana and Ohio over the past five years<sup>57</sup>

**\$2.2B+**

paid in royalty and working interest payments over the past five years

**\$922,646**

contributed in 2021 through charitable and corporate matched donations

# Community Engagement

**SWN takes a proactive approach to engaging with our stakeholders. Community relations professionals within each of SWN's operating areas are responsible for identifying and engaging with local stakeholders, including local officials, citizens, businesses, nonprofit organizations, emergency responders, and landowners and mineral owners.**

While we tailor our community engagement efforts to what is important locally, some key elements of our approach remain the same. Throughout every stage of our operations and everywhere we work, we share information openly, seek community feedback and work to understand, anticipate and resolve community concerns.

We also build on what we've learned from communities over the years by continually sharing best practices and new lessons learned across the company. We always strive to add lasting value, whether by building a local workforce, engaging with schools and community groups, supporting emergency responders, or fulfilling other unique needs at each location.

## Community Engagement Process

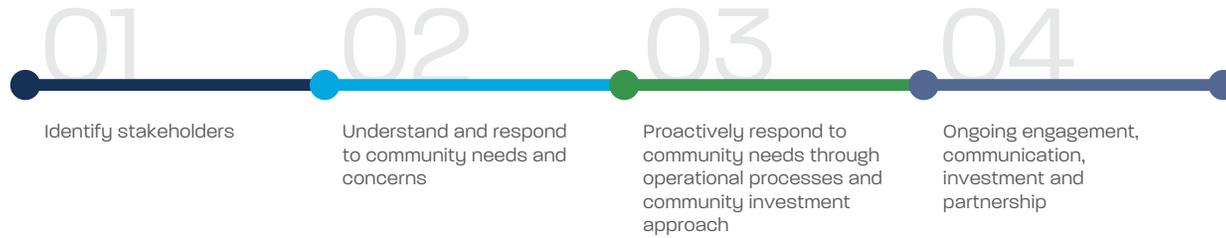
We assess potential impacts of our operations on local communities and consult with community members to understand their concerns and needs as an early step in our engagement process, which enables us to tailor our engagement efforts to each community. For example, in 2021, SWN began evaluating how to integrate our Haynesville assets into our community engagement program. As part of this effort, we are identifying and

building relationships with local stakeholders. We will work with local organizations to undertake a community needs assessment, and seek to understand and address potential impacts on and concerns of local residents. We are also bringing in best practices that have been honed for years in other operating areas, such as helping to build a local workforce and minimizing our impacts on roads and traffic. Finally, we are identifying new opportunities for reducing our footprint and making positive contributions to local needs, including working with local elected officials to allow for produced-water reuse — which is an important element of our approach to conserving water resources — and identifying new partnerships for community investment.

*Throughout every stage of our operations and everywhere we work, SWN's approach to community engagement is transparent, open, proactive and responsive. We work with local residents to understand and address community needs and concerns and find mutually beneficial ways to address them.*



## Community Engagement Process



## Protecting Cultural Resources & Engaging With Tribes

SWN is committed to the recognition and safeguarding of human rights, including the rights of Indigenous peoples, wherever we operate. SWN's [Human Rights Policy](#) guides our approach to protecting historical, cultural and archaeological resources. This policy is consistent with international principles, including the Universal Declaration of Human Rights. We are sensitive to the protection of tribal sites and resources. We screen for potential heritage sites when making development plans, and we engage Native American nations where our activities may impact their lands. At this time we are not operating in areas with protected tribal sites. We currently own property in West Virginia that contains a burial mound, which we plan to donate to the Osage Nation.



# Minimizing Local Impacts

SWN's regional community relations teams lead our efforts to understand and address local community concerns to help ensure community issues are addressed proactively, effectively and efficiently. SWN's community relations teams work with regional and state community foundations, nonprofits and economic development organizations to develop, assess and gather feedback to help us create sustainable community engagement plans.

## Responding to Community Concerns

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

We want to make it easy for stakeholders to communicate with us. At any time, community members and employees can anonymously report any operational, safety or community concerns via SWN's hotline. We aim to follow up on all issues raised through this process within 24 hours.

## Road Safety, Traffic and Road Maintenance

As a good neighbor, we focus on minimizing the impact of SWN's vehicles on the roads surrounding our operations. We make sure that our drivers are properly trained and we verify that safe practices are used on an ongoing basis (see [page 46](#)).

We conduct road impact and modeling studies and develop operational plans to avoid and mitigate potential impacts. 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 and/or narrow, winding roadways, and other hazards. Moving forward, SWN will be engaging local governments surrounding our Haynesville assets on road maintenance and traffic planning, bringing in best practices from our other operations.

**81.7%**

of fresh water carried by pipelines companywide in 2021

**98.3%**

of fresh water carried by pipelines in Appalachia division in 2021

**1.7M+**

truckloads averted off the roads since 2015, due to use of water pipelines in Appalachia

We limit the number of trucks on the road through strategic logistics planning. SWN's Centralized Logistics Operations Center plans efficient routes that avoid both high-traffic periods as well as bridges and roads not built for heavy truck traffic to minimize traffic, road impacts and vehicle emissions.

SWN's pipeline system in Pennsylvania and West Virginia minimizes the use of trucks for transporting fresh water. In 2021, 98.3% of fresh water used in Appalachia was transported via pipeline. We also use pipelines to share water with other operators nearby, further reducing truck traffic, road impairment and pollution while ensuring steady access to water resources. Our Haynesville assets engage in robust water sourcing and distribution. We aim to support modernizing regulations to enable greater produced-water reuse and sharing among operators to increase the conservation, resilience and sustainability of our water management.

We also support road maintenance to offset impacts that vehicles associated with our operations may have on local roads. Each year, SWN and the natural gas industry pay millions of dollars in state taxes, impact fees and maintenance fees, which are often used to restore and maintain highways and secondary roads. We also work with local road departments to help support road maintenance with our own equipment. We use several methods to reduce dust generated by vehicles traveling on gravel or dirt roads. Some methods can minimize dust for months, even during high-volume activity. We encourage all residents and SWN personnel to report areas in need of dust control through our 24-hour call center.

### Compressor Noise

Compressors that pressurize natural gas so it can be transported through pipelines are key to SWN's operations. However, compressors can be noisy. To help mitigate noise impacts in the communities where we operate, we conduct modeling for sound impact prior to beginning operations and employ noise abatement solutions as necessary. This systematic approach allows us to design our facilities to reduce noise impacts on the surrounding community.

#### Some of the ways we control noise levels in our operations include:

- Locating compressors to minimize impacts on people and nature
- Conducting sound impact assessments where relevant to proactively understand if additional sound mitigation efforts are needed
- Constructing buildings or walls around compressor equipment to mitigate sound
- Operating nonstandard compressor exhaust systems with extra sound-reduction capabilities
- Using high-efficiency coolers with fans that run at slower speeds to reduce noise
- Installing larger piping to reduce gas velocity and reduce high-pitched sounds

In our Haynesville assets, we are proactively engaging with local leaders to help develop more effective local noise ordinances based on best practices developed in our Appalachian regions.

### Environmental Concerns

Community members want to know how our operations will impact the environment, including water resources, air quality, land, parks and ecosystems. As described in the Environment section ([page 15](#)), we have developed industry-leading programs to preserve water resources ([page 34](#)), protect water quality and reduce air emissions ([page 18](#)) from our operations. We are also working hard to minimize our operational footprint and surface impacts ([page 37](#))- for example, by preventing spills and protecting biodiversity.

#### How We Handle Feedback

SWN's goal is to anticipate and address community needs proactively. If something does arise, we work with the community to address the issue immediately. Our 24-hour feedback hotline connects callers with SWN personnel who have the knowledge and authority to address and resolve issues, and we follow up as needed to provide updates on progress. We respond to all calls within 24 hours, and to most much sooner. We use a companywide routing and tracking system for community feedback to help us monitor the effectiveness of our efforts, capture learnings, spot trends and proactively coordinate solutions.

## Spotlight: Fresh Water Neutral's Impact in Communities

Our Fresh Water Neutral commitment does more than return fresh water back to the environment, it also delivers significant community benefits in the areas that we operate. Through fresh water neutral projects, we contribute to the health and well-being of people and communities by improving water quality, restoring river systems, increasing local biodiversity, and expanding recreational uses.

Here are just a few examples of our how we create a positive community impact through fresh water neutral projects across the country:

### Pennsylvania: Fall Brook AMD Treatment Project

Located in north central Pennsylvania, Fall Brook is a tributary of the Tioga River. Over time, it was severely degraded by acid mine drainage (AMD), water runoff contaminated with iron, manganese, and aluminum due to past coal mining (none of which was caused by SWN).

SWN took a lead role in the Fall Brook AMD Treatment and Restoration Project, agreeing to fund and oversee construction of a water treatment system and establish a trust fund to support ongoing maintenance.

This project increased recreational activities, improved aesthetics and property values, and cleaner water flowing through the streams of Pennsylvania.

*The volumetric benefit of this project is 11 million barrels of freshwater per year.*

### West Virginia: West Fork River Dam Removal

The West Fork River in West Virginia flows through Upshur, Lewis, Harrison, Marion, and Fairmont Counties where it joins the Tygart River to form the Monongahela, one of West Virginia's largest rivers. Three dams from the early 1900's did not provide significant flood control, creating stagnant flow areas along the river that allowed algal blooms to flourish and impacted local aquatic life.

SWN provided funding to support the removal of the dams and stabilization of the West Fork River. As a result, the free-flowing stream allows for increased fish movement and reduced the water temperature, which supports a renewed fish spawning habitat. It also restored a suitable habitat for other species, including 25 species of freshwater mussels.

*The volumetric benefit of this project is 8.8 million barrels of freshwater per year.*

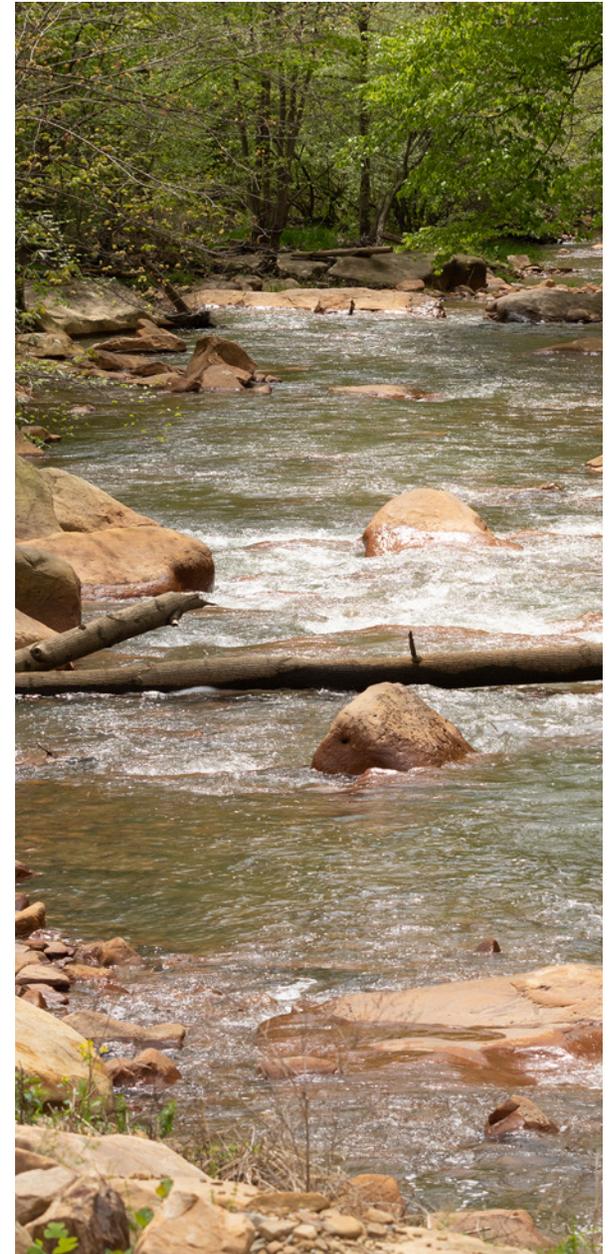
### Arkansas: Upper Little Red River Reforestation and Floodplain Restoration

The Upper Little Red River flows through White, Van Buren, Searcy, Stone, and Cleburne Counties in Arkansas. The area was historically forested, but portions were cleared for agriculture over the years. These areas were inundated with fescue and supported low levels of biodiversity.

The project sought to restore 550 acres back to forest by planting tree seedlings, allowing for greater water retention and infiltration. SWN provided funding for the purchase of 139 acres of the project, site preparation, and planting of trees in the floodplain.

This project, completed in partnership with the Nature Conservancy, resulted in increased local biodiversity and reduced runoff, which degrades the quality of the stream channel.

*The volumetric benefit of this project is 13.2 million barrels of freshwater per year.*



# Economic Impacts

Energy development brings communities significant economic benefits. SWN creates jobs with higher-than-average wages and makes direct payments to local landowners through mineral leases and royalties. Through taxes and impact fees we fund important government services, including schools, as well as infrastructure improvements, emergency preparedness, public safety and affordable housing.

In West Virginia, approximately 75% of our property taxes go to local schools. In Pennsylvania, the impact fees assessed on our wells are used to offset the statewide impact of drilling and to fund the Marcellus Legacy Fund, which in turn provides grants to Pennsylvania counties for highway, road and bridge improvements; environmental stewardship, water and storm-water systems; and emergency response.

We also make direct contributions to schools, nonprofits and community groups through charitable giving. For more on our contributions, please see Giving & Volunteering on [page 69](#).

Commodity prices may change over time, but SWN is steadfast in its support of long-term economic stability in the communities where we operate.

## Appalachia



**\$401.9M**  
paid by SWN in state and local taxes\* since 2017

**\$2.1B**  
paid by SWN in royalty and working interest payments since 2017

**\$232.2M**  
paid by SWN in total payroll since 2017

## Haynesville†



**\$4.5M**  
paid by SWN in state and local taxes in 2021

**\$69.2M**  
paid by SWN in royalty and working interest payments in 2021

**\$3.3M**  
paid by SWN in total payroll in 2021

\* 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, so this graphic only includes 2021 data. The royalty and working interest payments paid are for the period of September 1, 2021 through December 31, 2021.

## Developing a Local Workforce

We have committed to hiring locally, and developing and maintaining a local workforce is a key priority within our community engagement efforts. This not only supports our goal to make a lasting positive impact on our communities, but also makes business sense. Local employees provide valuable insight and perspective on community needs and concerns.

SWN develops and sponsors programs that highlight careers in the oil and gas industry and provide educational opportunities for those who wish to pursue a future in the industry. We invest in developing expertise in the communities where we operate to expand access to opportunities provided by our operations for the local workforce while supporting hiring needs for our own operations as well as our industry.

### Supporting Higher Education in Petroleum Technology

SWN supports and develops petroleum technology training programs in our primary operating areas. We have been active supporters of Lackawanna College's School of Petroleum and Natural Gas in Pennsylvania for the past decade. Our partnership with the college has included establishing scholarship funds, donating equipment for instructors, serving as guest lecturers and providing real-world field experiences on SWN sites. In 2021, SWN continued this long-term engagement by making a donation toward the new Tunkhannock Center Drilling and Production Lab.

### Supporting STEM Education

SWN works with schools and nonprofits in our communities to promote STEM programs. These efforts help students prepare for highly skilled, high-wage jobs across industries, including ours. In 2021, SWN committed to funding travel grants for an immersive, weeklong STEM adventure camp, E3: Energy, Environment, and Excitement Summer Camp at the West Virginia University Davis College of Agriculture, Natural Resources and Design. E3 is designed to provide underrepresented minority students an opportunity to participate in energy awareness and job opportunity curricula and activities.

### Mobile Oilfield Learning Unit

The Appalachian Mobile Oilfield Learning Unit (MOLU) is a traveling educational exhibit that includes hands-on activities covering important elements of oil and gas exploration and production that teach key math and science concepts. SWN joined five other oil and gas operators in Pennsylvania to develop the first Appalachia-specific MOLU, building on our support of a similar, non-region-specific unit. Though we were only able to visit one school in 2021 due to the COVID-19 pandemic, we plan to continue this program in 2022.

### SWN STEM Grants

Since 2018, Southwestern Energy has worked in partnership with the Community Foundation for the Ohio Valley to provide mini grants to support K-12 STEM activities at schools in the West Virginia counties in which we operate. In 2021, SWN partnered with the Foundation for Appalachian Ohio to expand this program to three counties in that state. Other STEM endeavors funded by SWN include support for the Wyalusing Public Library in Pennsylvania, activities at Boys & Girls Country in Houston, sponsorship of an educational exhibit contained within the Houston Museum of Natural Science and the IPAA Educational Foundation.

*“Southwestern Energy comes to Lackawanna College with a similar goal of building a skilled workforce in northeastern Pennsylvania in the energy sector. The company’s proven leadership in the industry and commitment to creating a positive impact in the communities they serve makes them an ideal partner.”*

- Susan Gumble, Program Director for Lackawanna College, School of Petroleum and Natural Gas



**\$174,000**  
 contributed to support skilled workforce development and STEM education

## Committed to Fresh Water Neutral

Fresh Water Neutral projects deliver significant environmental and community benefits to the areas in which we operate, as well as offsetting the fresh water we use in our operations. In the Muddy Creek watershed in West Virginia, SWN helped to restore a creekbed that had been contaminated by acid mine drainage (AMD). Although SWN had no role in the mining activities or resulting contamination, we helped finance the project that restored millions of barrels of fresh water per year to the environment. This is just one of many restoration projects that SWN has contributed to, which help divert and treat polluted waters and restore fresh water to river systems and their aquatic habitats.

# Giving & Volunteering

Investing in our communities through philanthropy and volunteering is integral to our company culture. SWN's approach to giving, which we call Social Energy, maximizes our impact across these focus areas: education, well-being, emergency response, clean air and water, family and support of military service members. Social Energy reflects local needs and includes company-funded charitable contributions, support for employee volunteerism and gift matching of employee donations.

We support employee engagement and harness our team members' enthusiasm to contribute by coordinating donations and volunteering efforts. For example, we matched SWN leaders with the boards of local nonprofits to extend the benefits of our financial

contributions. We also match employee donations to eligible charities up to \$15,000 per employee each year.<sup>58</sup> In 2021, SWN employees were not able to participate as in-person volunteers due to COVID-19 restrictions.



## Susquehanna County Fun Club

The Susquehanna County Career & Technology Center Fun Club is usually an after-school program that focuses on exercise, nutrition, food preparation and more. When gathering in person was not an option in 2021, SWN helped the program pivot to continue serving these children. SWN helped fund gift bags that included anxiety relief toys, seeds, educational brochures and more for every fifth and sixth grade student at Elk Lake Elementary School.

“Unfortunately, with COVID this year, we are not able to take the kiddos back to our classrooms with us. So, we were very fortunate to get a very large donation to the Susquehanna County Career & Technology Center that allowed us to make over 200 gift bags for the kids.”

- Jessica Warner, Susquehanna County Career & Technology Center paraprofessional



### Supporting Food Security in Our Communities

In 2021, the COVID-19 pandemic prevented SWN from gathering employees for holiday celebrations. We turned that disappointment into a positive impact on our communities by donating \$200,000 to food banks across our network.

**\$4.9M<sup>59</sup>**

in total charitable giving since 2017

**\$1.9M**

in matching gifts from SWN employees since 2017

**\$11.9M**

contributed over the life of our Fresh Water Neutral conservation initiative program to protect and restore waterways

# Governance

Delivering a lower-carbon future the right way, every day

At Southwestern Energy, strong and responsible corporate governance practices are embedded into everything we do. We strive to meet the highest standards for managing risk and operating responsibly across the enterprise, including our approach to corporate governance, ethics and integrity, CCR, governance, enterprise risk management and cybersecurity.

**SWN**  
Southwestern Energy®

## 2021 KEY METRICS

**44%**

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

**66%**

of our Board Directors have experience in HSE and/or corporate responsibility

**15%**

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

# Corporate Governance

Strong corporate governance is a cornerstone of responsible corporate citizenship. Our ELT, led by the CEO, is responsible for managing the Company's operations under the oversight of the Board of Directors (the "Board").

## Board Committees

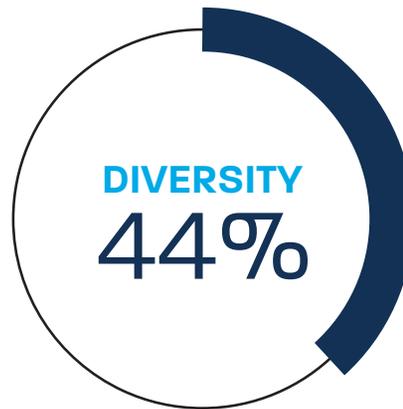
Our Board includes the following committees, which are composed entirely of independent directors:

- HSE&CR Committee
- Audit Committee
- Compensation Committee
- Nominating and Governance Committee

Please see [page 80](#), Corporate Responsibility Oversight & Enterprise Risk Management, for additional information regarding Board oversight of ESG matters.

## Board Diversity & Tenure

We seek Board members who bring a diversity of perspectives and backgrounds. As of May 2022, 44% of our nine Directors were diverse in gender, ethnicity or nationality. The average tenure of our Board members is between six and seven years, which we believe helps ensure fresh thinking and new perspectives.



- 2 Women
- 1 Native American
- 1 French National

## 6.3 YEARS<sup>†</sup> Average Tenure



1-4 years



5-7 years



8+ years

<sup>†</sup> As of May 19, 2022.

## 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

In addition to diversity of perspective and backgrounds, we seek Board members with specific skills and expertise in areas such as health, safety, the environment and corporate responsibility. The far-reaching skill set of our Board helps us to reach our goal of creating long-term, sustainable value, as well as protecting the health and safety of the environment and our employees, contractors and communities.

Skill/Experience	Description	Directors
<b>CEO Experience</b>	Experience as a CEO for a publicly listed company provides unique perspectives to the Board as well as mentorship for the Company's CEO.	4 of 9
<b>Corporate Governance</b>	Understanding governance best practices and experience from service on other public boards assists the Board with the implementation of best practices as well as navigating governance issues as applied to the Company.	6 of 9
<b>Energy Industry</b>	Extensive knowledge of and experience in our industry, including commercial aspects of the business, markets, operational challenges, regulatory and strategy, aids the Board in understanding the issues that may face the Company.	8 of 9
<b>Enterprise Risk Management</b>	The scale, scope and complexity of the Company's business raises a multitude of interdependent risks, which can vary over time. Experience in effectively identifying, prioritizing, assessing and managing a broad set of risks can help the Board appreciate, anticipate and oversee the Company in managing the risks that face its business.	7 of 9
<b>Financial Experience</b>	Substantial experience in financial reporting, accounting and capital markets relevant to a large, publicly traded company and knowledge of internal controls and testing is valuable in order to promote effective capital allocation, robust controls and oversight.	6 of 9

Skill/Experience	Description	Directors
<b>Gas/Oil Markets Expertise</b>	Extensive knowledge of domestic and global energy commodities markets contributes valuable perspective on issues specific to the Company's risk exposures.	5 of 9
<b>Health, Safety, Environment &amp; Corporate Responsibility</b>	Experience in industry regulations and health, safety and environmental best practices in the energy or other industrial operations strengthens the Board's oversight and understanding of the risks facing the Company, its workforce and the environment.	6 of 9
<b>Human Capital Management &amp; Compensation</b>	Understanding compensation factors and components that influence the attraction and retention of a workforce helps the Board oversee the Company's efforts to attract and retain a competitive workforce.	9 of 9
<b>Industrial Operating &amp; Workforce Management Experience</b>	Significant experience overseeing energy or other industrial operations as a senior executive at a public company or other major organization provides insight into the specific operational challenges facing the Company.	5 of 9
<b>Investor Perspective</b>	Experience as an investor in energy securities contributes to the Board's understanding of shareholder value and investor concerns and perceptions.	2 of 9
<b>Large or Complex Organizations</b>	Experience as an executive in larger, more complex organizations provides valuable insights to the Board regarding best practices and challenges the Company may encounter with increasing scale.	8 of 9
<b>Mergers and Acquisitions Experience or Assessment</b>	Understanding of, and experience with execution and evaluation of mergers and acquisitions of both private and public companies provides valuable perspective and insights to the Board.	8 of 9
<b>Related Industry Experience</b>	Experience in industries with which the Company deals provides the Board with a broader strategic understanding of and the ability to anticipate changes related to the Company's business.	3 of 9
<b>Strategy</b>	Significant experience developing or implementing a strategic vision as a senior executive provides the Board with valuable insights into oversight of strategy and resource allocation.	7 of 9

## Corporate Governance Principles & Best Practices

To help achieve the highest standards of corporate governance, the Board has adopted corporate governance principles that serve as the framework for the Board and its committees. SWN's Corporate Governance Guidelines are revised from time to time in response to changing regulatory requirements. Under the guidelines, a majority of the members of the Board are required to be independent of the Company's executive leadership and significant shareholders. 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 participate in every scheduled meeting. The Board is elected annually by SWN shareholders. In addition to the governance principles set out in the Corporate Governance Guidelines mentioned above, the Board follows many governance best practices as illustrated in the box to the right.

### 2021 Board Meeting Attendance

The Company's Corporate Governance Guidelines state that directors are expected to attend all or nearly all Board meetings, meetings of the committees of the Board on which they serve, and the Annual Meeting. During 2021, our Board met 15 times (5 regular and 10 special meetings).



### 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 <http://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

## Corporate Governance Best Practices

### Adoption of Best Practices

- Annual "Say-on-Pay" vote
- Majority voting in director elections
- Annual election of all directors
- Proxy access
- Ability to call special meetings
- Active shareholder engagement program
- No supermajority voting standards
- All directors independent except CEO

### Boardroom Culture

- Disciplined decision-making
- Long-term outlook
- Focus on Company risks and mitigation
- Practices for increasing Board diversity
- Engagement with management, asking the difficult questions
- Willingness to engage deeply and respectfully in the boardroom
- Value-focused
- Conducts annual peer assessments

## Stakeholder Engagement

We focus our sustainability priorities and disclosures on the issues and opportunities 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 2021, we reached out to every institutional investor for whom we were able to gather contact information, representing a combined 84% of outstanding shares as of December 31, 2021.

Detailed throughout this report are our approaches to managing ESG-related issues. The following represents the key stakeholders and initiatives that influenced the development of our material ESG priorities and continue to play an influential role in driving SWN's long-term value and success:

### Investors

- Annual report, quarterly reports and earnings calls
- In-person meetings with institutional investors, including analyst conferences
- Meetings with investors who are specifically interested in environmental, social or governance issues
- Additional regular investor contact through our Investor Relations function, including active engagement and soliciting feedback
- Continuous monitoring of relevant and emerging ESG issues important to investors in media and investor publications

### Employees

- SWNet (intranet)
- Town hall meetings
- Support and networking groups, including diversity groups
- Safety training
- Performance management
- "Career Matters" conversations

- Wellness programs
- Leadership and professional development programs
- Ethics hotline
- Day-to-day interactions
- Employee engagement surveys

Please see Workforce section on [page 53](#) for more information.

### Contractors

- ONE Team events and communications
- Safety Stand Down days and safety training
- Monthly safety meetings at SWN sites
- Special project meetings at SWN sites to address specific health, safety and environment issues and corrective actions
- Operational reviews by division management
- Vendor forums and audits
- SWNlink communications, including operational announcements and quarterly newsletters
- ISNetworld, a third-party service for hiring, communications and management for contractors

Please see Contractor Management on [page 60](#) for more information.

### Customers

- Regular contact through our Marketing group

### Landowners and Holders of Mineral Rights

- Access via SWN.com website
- Direct conversations and negotiations — individually and in small groups
- Monthly payment statements to royalty owners
- Semiannual newsletters
- Landowner hotline

**Local Communities** (including residents, elected officials, community and civic groups, economic development organizations, emergency responders)

- Regular contact via SWN community liaisons
- "Everyday Heroes" events for first responders (annually in our operating areas)
- Employee volunteerism
- Feedback hotlines
- Charitable engagement through event sponsorship, board membership and scholarships

Please see the Communities section, beginning on [page 61](#) for more information.

### State- and Federal-Level Government Officials

- Participation in select SWN health, safety and environment meetings
- Legislative and regulatory engagement

Please see the Governance section, beginning on [page 71](#) for more information.

### Environmental Organizations and Universities

- Partnership in and funding of specific workforce development projects
- Joint research projects
- Resources for technical assistance
- Direct communication with relevant SWN employees
- Training and collaboration

For additional information regarding our 2021 shareholder engagement, please see our [2022 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. Annually, the Compensation Committee and the full Board, with assistance from an independent compensation consultant, review and approve target compensation for the executive officers by setting base salaries and long-term and annual incentive targets.

### Highlights of the executive compensation program include the following:

- A significant stock ownership requirement
- A compensation recoupment or "clawback" policy applicable to all executive officers that allows us to recover incentive compensation that was paid or granted in the three-year period prior to the restatement, regardless of whether misconduct caused the restatement
- A maximum payout that limits annual incentive bonuses or performance units
- CEO salary that constitutes no more than 12% of the target compensation package, with the remainder generally being equity based or otherwise contingent upon Company and individual performance
- Long-term incentive compensation that aligns executive and shareholder interests to achieve long-term performance objectives and constitutes the major component of at-risk compensation
- Each executive officer employed at will and expected to demonstrate exceptional personal performance to continue serving as a member of the executive team

- Cash severance in connection with a change-in-control paid only if an actual or constructive termination of employment also occurs
- No repricing of stock options without shareholder approval
- No pledging or hedging of Company securities
- No automatic base salary increases
- No tax gross-ups

To sustain the trust we've built with our stakeholders and to maintain the alignment with their interests, we annually solicit feedback on our compensation programs through our Say-on-Pay proposal. On average over the past three years, investors have voted in favor of our compensation programs 88% of the time, and in 2022, 92% voted in favor of the proposal.

### Highlights of the non-employee director compensation

The non-employee director compensation, which is annually reviewed and recommended by the Nominating and Governance Committee and approved by the Board, includes:

- A significant stock ownership requirement
- An annual cash retainer and equity incentive award for service as a director
- An annual cash retainer for each chairman of a committee
- An annual fee paid quarterly to the Board Chairman in cash or common stock

Additional information regarding our executive compensation programs and non-employee director compensation can be found in [SWN's 2022 proxy statement](#).

## 2021 Compensation Highlights

In response to specific shareholder feedback, we made several key changes to our compensation program for 2021:

### Annual Salary:

- No increases for the second consecutive year

### Annual Bonus:

- Replaced the "Production" metric with a "Proved Developed F&D cost" metric\*
- Added an ESG metric, "Methane Intensity"\*
- Increased the weighting of HSE/ESG metrics to 15% from 10%

### Long-Term Incentives (LTIs):

- Reduced LTI award grants by 20% for the CEO, COO and Senior VPs
  - Replaced return on average capital employed (ROACE) with return on capital employed (ROCE)
  - Added a "Reinvestment Ratio" metric to place further emphasis on free cash flow generation
- \*Responsive to specific shareholder feedback.

# 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, Chris Lacy, 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.

*In 2021, 100% of all employees and full-time contingent workers completed the required ethics training courses.*

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 2021, we received 32 complaints through this hotline, all of which were assessed and resolved.



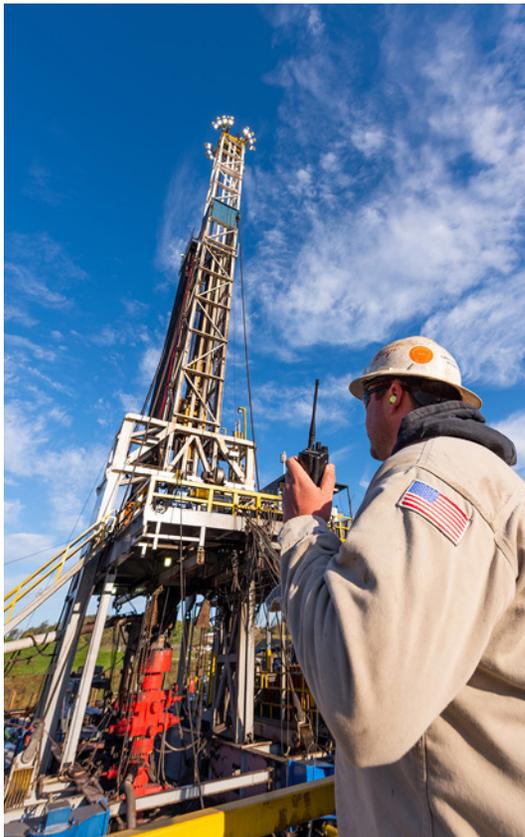
## Public Policy Engagement

Southwestern Energy'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. For example, in 2021 we proactively worked with industry partners and policymakers to sustain and enhance methane regulations so that regulatory agencies are able to monitor our industry and better protect the environment. In Haynesville, we are collaborating with policymakers on regulatory modernizations enabling more efficient produced-water reuse and sharing among adjacent operators. Also in Haynesville, we contributed best practice operating strategies to regional policymakers, enhancing local ordinances based on lessons learned from our other operating areas.

We 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 regulations.



# 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, matters involving members of the Board and succession planning.
- The **Compensation Committee** reviews compensation and human resources matters.
- 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.

To formalize senior management’s role in driving our ESG efforts, in early 2021 the Company created an **ESG Steering Committee**, composed of cross-functional senior executives and managers. The ESG Committee, which reports directly to the Company’s ELT, is tasked with:

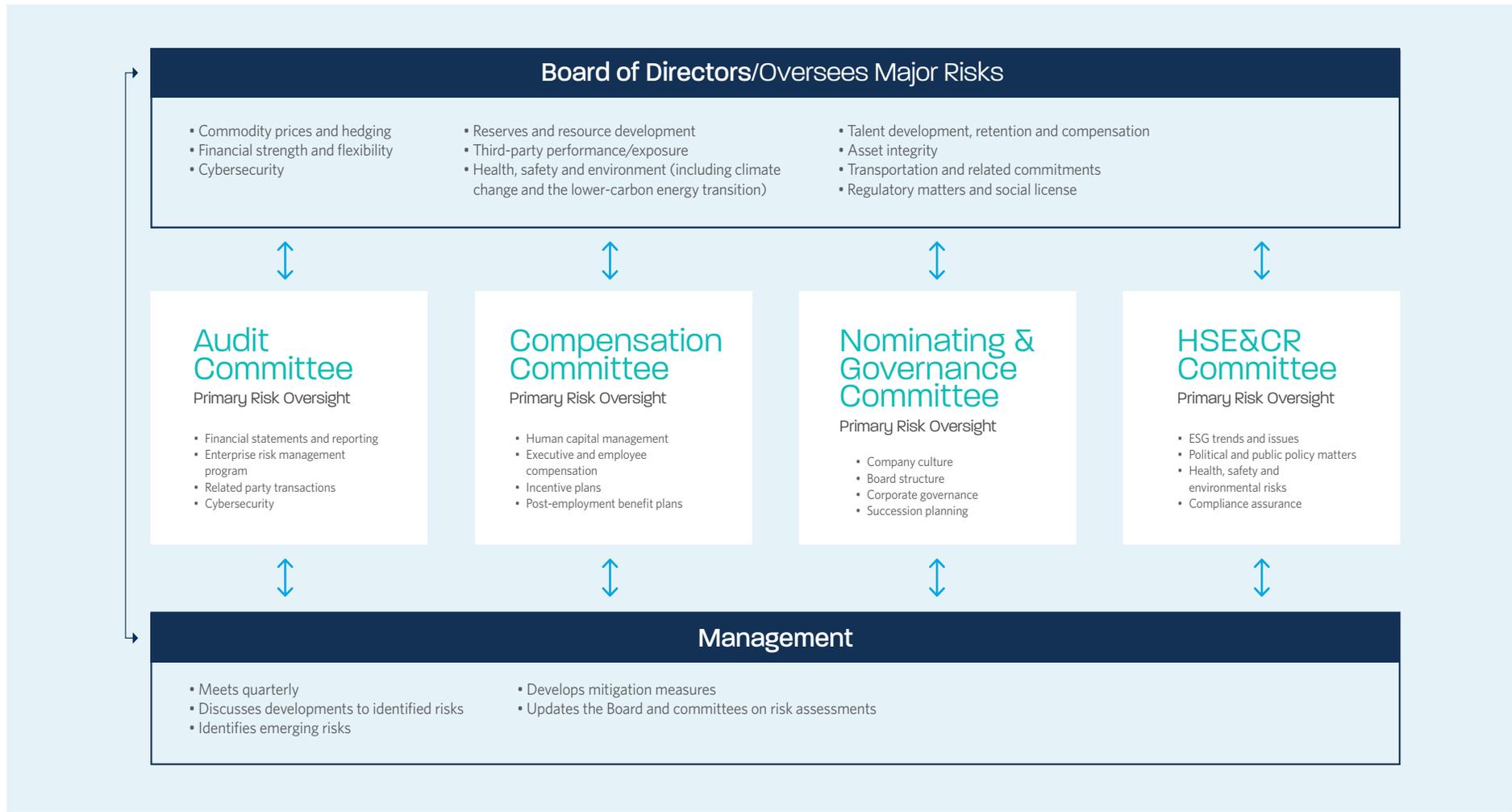
- Advancing the company’s ESG strategy and performance by recommending policies and practices to the ELT.
- Assessing current and emerging ESG matters that may impact the Company, its business, operations or performance, or are otherwise pertinent to the Company and its stakeholders, and bringing these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

#### Compensation Linked to ESG Performance

For example, to underpin accountability for ESG performance, we expanded ESG-related metrics in our executives’ bonus compensation. This was achieved by adding a methane intensity goal to existing ESG metrics focused on Total Recordable Incident Rate and Total Produced Fluid Spill Rate. Also in 2021, the weighting of ESG components increased from 10% to 15% of the total bonus compensation.

## Enterprise Risk Management

A primary responsibility of SWN's Board of Directors and ELT is ensuring processes are in place to identify and properly manage risks to the Company and its business. This includes risks and opportunities associated with climate change and other ESG-related topics (see [page 26](#) for more on our approach to climate-related risks and opportunities). The chart below illustrates how the Board and management oversee risks:



We follow a rigorous ERM 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. For example, in 2021, we elevated availability and costs of goods and services from a monitored risk to a top risk, given the continued supply chain interruptions and inflationary pressures. Also in 2021, we integrated our newly acquired Haynesville assets into our risk management process.

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.



## Cybersecurity

Cybersecurity is a critical risk for our Company and the stability of our nation's energy system. 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 opened 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 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 after 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 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 look for new ways to assess our programs to help maintain our organizational resilience. For example, in 2021, we began participating 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 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 are key to protecting our assets and participate in cybersecurity awareness campaigns, tests and training. In 2021, we added a cybersecurity module to our required annual ethics training and it is also a topic included under our Health & Safety

training program. In 2022, we began implementing a stand-alone cybersecurity training module for all staff who connect or log in, which includes at least monthly lessons and competency assessments. 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

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

### ESG-Specific Policies and 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 way to assure 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.

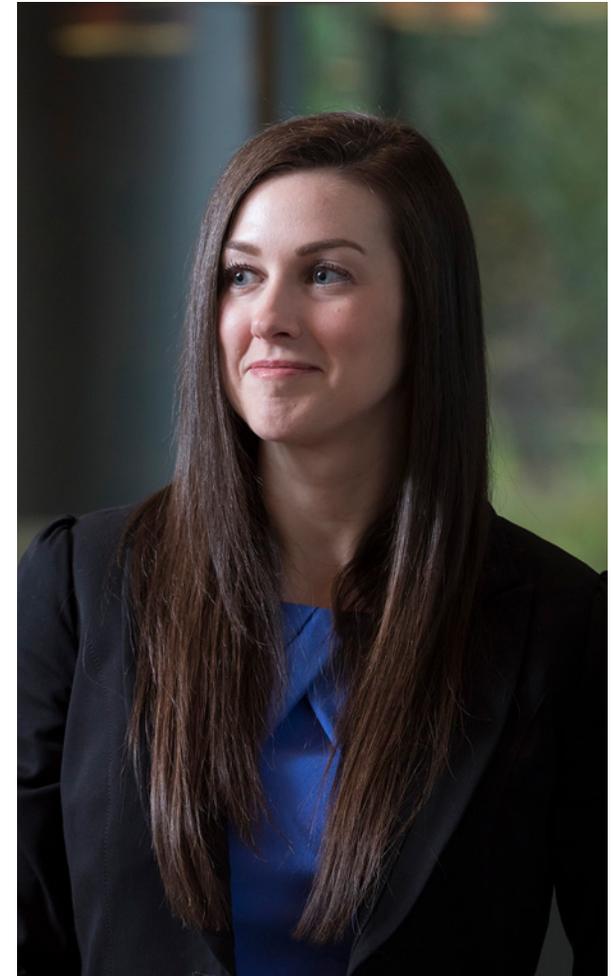
#### **Section 406 Code of Ethics**

Requires each company registered with the Securities and Exchange Commission to disclose whether or not 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](#)
- [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 [2022 Proxy Statement](#) for more information on our approach to corporate governance.



## Health, Safety & Environmental Management

### HSE Policy & Management System

Our approach to managing HSE topics is governed by SWN's [HSE Policy](#), which underscores our commitment to protecting employees, contractors, communities and the environment in all areas where we conduct business. It is the responsibility of every SWN employee to deliver on our commitment to this policy and 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. In 2021, we implemented an updated HSE management system software program that provides a one-stop shop for HSE standards, procedures processes and other guidance, training, safety and environmental hazard assessments, as well as for tracking and reporting HSE targets, metrics and data; lessons learned; and corrective action. This new tool is designed to support improved efficiency, accountability, communication and compliance across our operations (see Health & Safety section on [page 41](#)).

### 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 regularly 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 VP of Health, Safety, Environmental and Regulatory (HSER), who reports to our Chief Operating Officer, directly manages HSE issues and reports to the Board. This VP is a member of the ELT and participates in weekly meetings with the CEO, CFO, General Counsel and other senior executives, and is also a member of the ESG Committee, which advises the ELT on ESG issues and strategy. In addition, the VP of HSER meets with the Board of Directors' HSE&CR Committee members during the quarterly committee meeting, which includes a review of HSER performance metrics, trends and significant incidents including investigative findings and corrective actions.

The Corporate HSE Area Manager oversees SWN's dedicated HSE and Regulatory teams, which are 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.

### 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 participation in site visits) and lagging indicators (e.g., Total Recordable Incident Rate).

In addition, safety and environmental performance are factors in the performance-based element of every SWN employee's annual bonus, which is established by the Board's Compensation Committee (see [page 80](#)).

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 identify 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 and 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 environment 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 2019 does not include any data from Fayetteville Shale, because the assets were divested. 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 in September 2021. As such, data from each year is not comparable to previous years' data.
- [2] This report includes 2021 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 and SWN reuse of produced water from other operators. In 2019, volume recycled includes the reuse of SWN produced water by other operators. In 2020 and 2021, the volume does not include the reuse of SWN produced water by other operators.
- [4] As of December 31 for the respective year.
- [5] Volume recycled in 2019 includes SWN reuse of SWN produced water, SWN reuse of produced-water from other operators and reuse of SWN produced water by other operators. The volume recycled in 2020 and 2021 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 percent recycled from 2020 to 2021 decreased due to restrictions that inhibit or prevent recycling in some of our operating areas. Additionally, when SWN acquired Indigo in September 2021, there was no infrastructure or 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 in 2022.
- [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 (Btu)/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). In accordance with U.S. Environmental Protection Agency (EPA) greenhouse gas reporting requirements, assets that were acquired in 2020 are reported, resulting in an increase from 2019 to 2020.
- [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. All volumes show Haynesville water data only for the time following acquisition, September 1, 2021 through December 31, 2021. Finally, 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] In 2019, this volume also includes use of SWN-produced water by other operators. In 2020 and 2021, 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 generated by SWN, as well as flowback and produced water provided from other operators to SWN and used in SWN's hydraulic fracturing operations.
- [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] In 2019, the percentage includes SWN-produced water provided to other operators for reuse. In 2020 and 2021, SWN-produced water provided to other operators for reuse is not included in the percentage due to regulatory requirements.
- [17] 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 in 2022.
- [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] Some of the increase in Scope 1 GHG emissions from 2020 to 2021 is attributed to the Haynesville assets purchased by SWN during 2021. In accordance with EPA GHG reporting requirements, the emissions from the properties acquired were included in the calculation for the entire year of 2021. The emissions intensity and leak/loss rate data are based on gross operated production. The GHG calculations — reported in carbon dioxide equivalents (CO<sub>2</sub>e) — include CO<sub>2</sub>, methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O). Certain GHG emissions are based on EPA emissions factors. The production CO<sub>2</sub>e emissions reflect emissions reported to the EPA under Subpart W of the Greenhouse Gas Mandatory Reporting Rule (GHGMRR). CO<sub>2</sub>e emission offsets were not utilized or represented in the GHG gross Scope 1 or 2 emission calculations. Approximately 99% of our production and midstream operations are subject to reporting under Subpart W. In accordance with EPA GHG 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 GHG 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 from SWN (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 Natural Resources and GEP, with producing wells in Louisiana. In accordance with EPA GHG reporting requirements, the emissions from the properties acquired were included in the calculation for the entire year of 2021.
- [24] 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. 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. A gigagram is equivalent to a thousand metric tons.
- [26] 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. 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.
- [27] Charitable donations for 2019 and 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 their 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 <https://www.bls.gov/iif/oshval.htm>) — 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 man-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] Energy Information Administration. (August 17, 2022). Retrieved from Energy Information Administration: <https://www.eia.gov/outlooks>.
- [34] Energy Information Administration. (August 17, 2022). Retrieved from Energy Information Administration: <https://www.eia.gov/outlooks>.
- [35] Based on the IEA's Sustainable Development Scenario, IEA 2021 *World Energy Outlook*.
- [36] For more information on ONE Future and the target-setting process, please see: <https://onefuture.us/>.
- [37] 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. In calendar year 2021, SWN acquired Indigo Natural Resources and GEP, with producing wells in Louisiana. In accordance with EPA GHG reporting requirements, the properties acquired were included in the calculation for the entire year of 2021.
- [38] All leaks are ultimately repaired. However, less than 1% of leaks in 2021 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.
- [39] Source: Technical Supplement: *The Use of Scenario Analysis in Disclosure of Climate-Related Risks and Opportunities*, Task Force on Climate-related Financial Disclosures.
- [40] This includes proved developed producing reserves as defined by the SEC.
- [41] Currently our Area Manager of HSE is filling the vacant role of VP of HSE.
- [42] The methane intensity (methane leak/loss rate) is calculated by dividing the mass of methane emissions by the mass of gross methane production. In calendar year 2021, SWN acquired Indigo Natural Resources and GEP, with producing wells in Louisiana. In accordance with EPA GHG reporting requirements, the properties acquired were included in the calculation for the entire year of 2021.
- [43] Water demand per well for Haynesville is for September 1, 2021, through December 31, 2021, for the assets that SWN acquired from Indigo. No volumes are reported for previous years or prior to September 1, 2021, as SWN did not own the assets at that time.
- [44] 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.
- [45] The total reuse and offset volume of 55.28 million barrels in 2021 is companywide and includes offsets in the ARK-LA-TX basin. The Haynesville data included in this graphic is from September 1, 2021, through December 31, 2021.
- [46] 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.
- [47] 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 2019, the percentage includes SWN-produced water provided to other operators for reuse. In 2020 and 2021, SWN-produced water provided to other operators for reuse is not included in the percentage.
- [48] Casing is hollow steel pipe. See a video (<https://www.youtube.com/watch?v=KFY8DM4VJ6Q>) that details our horizontal drilling and fracturing practices and how we seek to ensure wellbore integrity.
- [49] We divested our Arkansas assets on December 3, 2018.
- [50] "No problem" includes situations where the complaint is only due to aesthetics (e.g., naturally occurring iron or manganese).
- [51] Naturally occurring bacteria in water wells is common in our areas of operation.
- [52] 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.
- [53] "Mechanical" refers to a mechanical or equipment problem with the given water well (e.g., a broken pump).
- [54] The "miscellaneous" classification as used herein encompasses any claim not falling within another claim classification (e.g., brine contamination and diminution).
- [55] 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.
- [56] "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.
- [57] We divested our Fayetteville Shale assets in Arkansas in December 2018. As such, tax dollars associated with that asset are not included in the five-year total. Haynesville data is included where available from September 1, 2021, to December 31, 2021.
- [58] Matching requires a minimum \$100 donation from SWN employees.
- [59] Charitable contributions do not include industry association fees or political contributions.

# Appendix 2021 - 22

## OUR PRIMARY OPERATING COMPANIES, SUBSIDIARIES AND OPERATING UNITS

### Exploration and Production (E&P) Operations and Services

- SWN Production Company, LLC, conducts exploration, drilling and production activities, primarily in Pennsylvania and West Virginia
- SWN Production (Louisiana), LLC, conducts exploration, drilling and production activities, primarily in Louisiana
- SWN Production (Ohio), LLC, conducts exploration, drilling and production activities, primarily in Ohio
- SWN E&P Services, LLC, provides oilfield products and services
- SWN Drilling Company, LLC, operates drilling rigs

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 regards 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 2021-22 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 reporting boundaries.

### Midstream Services

- SWN Midstream Services Company, LLC, oversees the marketing and transport of natural gas, primarily for SWN. Key subsidiaries include the following:
- SWN Energy Services Company, LLC, which markets and transports natural gas, crude oil and natural gas liquids

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Task Force on Climate-related Financial Disclosures (TCFD) Index	p. 104
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## 2021-22 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 (2016): Core

option. However, we report many additional indicators not required for Core level reporting. See the Reporting Boundaries table ([page 109](#)) for a list of GRI topics we have found to be material to our company and stakeholders. This is the 8th 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, they have been subject to internal quality assurance procedures.

General Disclosures	
Disclosure Number and Title	Page/Response/Omission
<b>GRI 102: General Disclosures 2016</b>	
<b>Organizational Profile</b>	
102-1 Name of the organization	Strategy/Our Strategy ( <a href="#">p. 7</a> ) <a href="#">About</a>
102-2 Activities, brands, products, and services	Strategy/Our Strategy ( <a href="#">p. 8</a> ) <a href="#">Operations</a>
102-3 Location of headquarters	Spring, Texas
102-4 Location of operations	Strategy/Our Strategy ( <a href="#">p. 8</a> ) <a href="#">Operations</a> <a href="#">2021 10-K</a> (pp. 10-12)
102-5 Ownership and legal form	<a href="#">2021 10-K</a> (p. 10) <i>Southwestern Energy Company is a publicly held company. Our common stock is traded on the New York Stock Exchange under the symbol “SWN.”</i>
102-6 Markets served	Strategy/Our Strategy ( <a href="#">p. 7</a> ) <a href="#">Operations</a>
102-7 Scale of the organization	Key Performance Metrics/Key Data Summary ( <a href="#">p. 11</a> ) <a href="#">Operations</a> <a href="#">2021 10-K</a> (pp. 10-21, 31-32, 51-52)
102-8 Information on employees and other workers	Key Performance Metrics/Workforce Performance Metrics ( <a href="#">p. 14</a> ) Workforce/2021 Key Metrics ( <a href="#">p. 53</a> ) Workforce/Diversity & Inclusion ( <a href="#">pp. 56-57</a> ) Workforce/Contractor Management ( <a href="#">p. 60</a> ) <i>SWN does not employ a significant number of seasonal workers.</i>
102-9 Supply chain	<i>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 1,600 outside suppliers. Of these, 78% are contractors/ service suppliers, 15% supply materials, 3% are consultants, and 4% 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 2021 was approximately \$1.15 billion</i>
102-10 Significant changes to the organization and its supply chain	<a href="#">2021 10-K</a> (pp. 21-22, 93-98)

<p><b>102-11</b> Precautionary Principle or approach</p>	<p>Governance (<a href="#">p. 71</a>)</p> <p><i>We do not apply this principle formally across all of our risk management decisions, but it does inform our thinking.</i></p>
<p><b>102-12</b> External initiatives</p>	<p>Environment/Climate Change &amp; Emissions (<a href="#">pp. 16-29</a>)  <a href="#">Industry Memberships</a></p>
<p><b>102-13</b> Membership of associations</p>	<p><a href="#">Industry Memberships</a></p>
<p><b>Strategy</b></p>	
<p><b>102-14</b> Statement from senior decision-maker</p>	<p>Message from the CEO (<a href="#">p. 3</a>)</p>
<p><b>102-15</b> Key impacts, risks, and opportunities*</p>	<p>Message from the CEO (<a href="#">p. 3</a>)                  Strategy/Key Issues (<a href="#">p. 9</a>)                  Governance/Ethics &amp; Integrity (<a href="#">pp. 78-79</a>)  <a href="#">2021 10-K</a> (pp. 34-51)</p>
<p><b>Ethics and Integrity</b></p>	
<p><b>102-16</b> Values, principles, standards, and norms of behavior</p>	<p>Our Core Values (<a href="#">p. 4</a>)                  Strategy (<a href="#">pp. 6-9</a>)                  Governance/Ethics &amp; Integrity (<a href="#">pp. 78-79</a>)  <a href="#">Business Conduct Guidelines</a>  <a href="#">Corporate Governance</a>  <a href="#">Corporate Responsibility</a>  <a href="#">Code of Ethics for Section 406 Officers</a></p>
<p><b>102-17</b> Mechanisms for advice and concerns about ethics*</p>	<p>Governance/Ethics &amp; Integrity (<a href="#">pp. 78-79</a>)  <a href="#">Business Conduct Guidelines</a></p> <p><i>We have developed a detailed, confidential complaint procedure to facilitate the reporting of concerns or complaints by our employees and other interested parties regarding the company's accounting practices.</i></p>
<p><b>Governance</b></p>	
<p><b>102-18</b> Governance structure</p>	<p>Governance (<a href="#">pp. 71-75</a>)  <a href="#">2022 Proxy Statement</a> (pp. 4-6)</p>
<p><b>102-19</b> Delegating authority*</p>	<p>Governance (<a href="#">pp. 71-75</a>)</p>
<p><b>102-20</b> Executive-level responsibility for economic, environmental, and social topics*</p>	<p>Governance (<a href="#">pp. 71-75</a>)</p>
<p><b>102-21</b> Consulting stakeholders on economic, environmental, and social topics*</p>	<p><a href="#">2022 Proxy Statement</a> (pp. 8, 26-27)</p>
<p><b>102-22</b> Composition of the highest governance body and its committees*</p>	<p><a href="#">Board of Directors</a>  <a href="#">2022 Proxy Statement</a> (pp. 4-8, 12-13, 22-25)</p>
<p><b>102-23</b> Chair of the highest governance body*</p>	<p><a href="#">2022 Proxy Statement</a> (p. 26)</p> <p><i>The Chairman of the Board is not an executive officer.</i></p>

102-24 Nominating and selecting the highest governance body*	<a href="#">2022 Proxy Statement</a> (pp. 14-19, 27) <a href="#">Corporate Governance Guidelines</a> (pp. 5-8)
102-25 Conflicts of interest*	<a href="#">2022 Proxy Statement</a> (pp. 27-28)  <i>Our Board members are subject to our <a href="#">Business Conduct Guidelines</a>, which cover conflicts of interest and also limit membership on other boards. Board members are also subject to the independence requirements of the New York Stock Exchange, including the strengthened requirements relating to Audit, Compensation, Governance, and Nominating committees.</i>
102-26 Role of highest governance body in setting purpose, values, and strategy*	Governance (pp. 71-75) <a href="#">2022 Proxy Statement</a> (p. 5) <a href="#">Corporate Governance Guidelines</a> (pp. 1-2)
102-28 Evaluating the highest governance body's performance*	<a href="#">2022 Proxy Statement</a> (p. 26)
102-29 Identifying and managing economic, environmental, and social impacts, and social impacts*	<a href="#">2022 Proxy Statement</a> (p. 5)
102-30 Effectiveness of risk management processes*	Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 80-86) <a href="#">2022 Proxy Statement</a> (p. 5)  <i>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.</i>
102-31 Review of economic, environmental, and social topics*	See note for 102-30.
102-32 Highest governance body's role in sustainability reporting*	<a href="#">Corporate Responsibility/Our Corporate Responsibility Reporting</a>
102-33 Communicating critical concerns*	Governance (p. 75) <a href="#">2022 Proxy Statement</a> (p. 21) <a href="#">Contact the Board</a>  <i>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 <a href="#">Business Conduct Guidelines</a> and <a href="#">Code of Ethics</a>. Concerns raised by these audits are forwarded to our Chief Compliance Officer and the Audit Committee for disposition.</i>
102-35 Remuneration policies*	<a href="#">2022 Proxy Statement</a> (pp. 23, 29-47)
102-36 Process for determining remuneration*	<a href="#">2022 Proxy Statement</a> (pp. 23, 29-47)
<b>Stakeholder Engagement</b>	
102-40 List of stakeholder groups	Governance/Stakeholder Engagement (p. 76)
102-41 Collective bargaining agreements	<i>None of our employees are covered by collective bargaining agreements.</i>
102-42 Identifying and selecting stakeholders	Communities/Community Engagement (pp. 62-63) Governance/Stakeholder Engagement (p. 76)
102-43 Approach to stakeholder engagement	Strategy/Key Issues (p. 9) Governance/Stakeholder Engagement (p. 76)

<b>102-44</b> Key topics and concerns raised	<a href="#">Strategy/Key Issues (p. 9)</a> <a href="#">Environment/Climate Change &amp; Emissions (pp. 16-29)</a> <a href="#">Environment/Water (pp. 30-36)</a> <a href="#">Communities/Minimizing Local Impacts (pp. 64-65)</a> <a href="#">2022 Proxy Statement (pp. 8, 36)</a>
<b>Reporting Practice</b>	
<b>102-45</b> Entities included in the consolidated financial statements	<i>All entities in the consolidated financial statement are covered in this report.</i>
<b>102-46</b> Defining report content and topic Boundaries	<a href="#">Strategy/Key Issues (p. 9)</a> <a href="#">Appendix/Reporting Boundaries (p. 109)</a>
<b>102-47</b> List of material topics	<a href="#">Strategy/Key Issues (p. 9)</a> <a href="#">Appendix/Reporting Boundaries (p. 109)</a>
<b>102-48</b> Restatements of information	<a href="#">Key Performance Metrics (pp. 11-14)</a>
<b>102-49</b> Changes in reporting	<i>There have been no significant changes in the report scope or aspect boundaries since our last report.</i>
<b>102-50</b> Reporting period	<i>Data in this report is for the 2021 calendar year unless otherwise noted.</i>
<b>102-51</b> Date of most recent report	September 2021
<b>102-52</b> Reporting cycle	Annual
<b>102-53</b> Contact point for questions regarding the report	<a href="#">Contact Us</a>
<b>102-54</b> Claims of reporting in accordance with the GRI Standards	<i>This report has been prepared in accordance with the GRI Standards (2016): Core option</i>
<b>102-55</b> GRI content index	<a href="#">Appendix/2021-22 GRI Content Index (p. 90)</a>
<b>102-56</b> External assurance	<i>The financial data drawn from our Form 10-K have been externally assured; while other data haven't been externally assured, they have been subject to internal quality assurance procedures.</i>
<b>Topic-Specific Disclosures</b>	
<b>GRI 201: Economic Performance 2016</b>	
<b>103-1</b> Explanation of the material topic and its Boundary	<a href="#">Strategy/Key Issues (p. 9)</a> <a href="#">Appendix/Reporting Boundaries (p. 109)</a>
<b>103-2</b> The management approach and its components	<a href="#">Strategy (pp. 6-9)</a> <a href="#">Governance (pp. 71-75)</a> <a href="#">2021 10-K (pp. 53-72)</a>
<b>103-3</b> Evaluation of the management approach <sup>1</sup>	<a href="#">Governance/Corporate Responsibility Oversight &amp; Enterprise Risk Management (pp. 80-86)</a>
<b>201-1</b> Direct economic value generated and distributed	<a href="#">Key Performance Metrics/Key Data Summary (p. 11)</a> <a href="#">2021 10-K (pp. 53-72)</a>

<p><b>201-2</b> Financial implications and other risks and opportunities due to climate change</p>	<p>Strategy/Key Issues (p. 9)                  Environment/Climate Change &amp; Emissions (p. 26)                  Governance/Corporate Responsibility Oversight &amp; Enterprise Risk Management (pp. 80-86)  <a href="#">2021 10-K</a> (pp. 30-31, 40-41, 44-45)</p> <p>See note in 102-16.</p>
<p><b>201-3</b> Defined benefit plan obligations and other retirement plans</p>	<p><a href="#">2021 10-K</a> (pp. 122-127)</p>
<p><b>GRI 203: Indirect Economic Impacts 2016</b></p>	
<p><b>103-1</b> Explanation of the material topic and its Boundary</p>	<p>Strategy/Key Issues (p. 9)                  Appendix/Reporting Boundaries (p. 109)</p>
<p><b>103-2</b> The management approach and its components</p>	<p>Strategy (pp. 6-9)                  Communities/Minimizing Local Impacts (pp. 64-65)                  Communities/Economic Impacts (pp. 67-68)                  Communities/Giving &amp; Volunteering (pp. 69-70)                  Governance (pp. 71-75)</p>
<p><b>103-3</b> Evaluation of the management approach<sup>1</sup></p>	<p>Governance/Corporate Responsibility Oversight &amp; Enterprise Risk Management (pp. 80-86)</p>
<p><b>203-1</b> Infrastructure investments and services supported</p>	<p>Environment/Water/Responsible Produced Water Management (pp. 33-34)                  Communities/Economic Impacts (pp. 67-68)                  Communities/Giving &amp; Volunteering (pp. 69-70)</p>
<p><b>203-2</b> Significant indirect economic impacts</p>	<p>Communities/Economic Impacts (pp. 67-68)</p>
<p><b>GRI 204: Procurement Practices 2016*</b></p>	
<p><b>103-2</b> The management approach and its components</p>	<p>Strategy (pp. 6-9)                  Communities/Minimizing Local Impacts (pp. 64-65)                  Communities/Economic Impacts (pp. 67-68)                  Governance (pp. 71-75)</p> <p><i>SWN makes every effort to work with local suppliers at significant locations of operations.</i></p>
<p><b>103-3</b> Evaluation of the management approach<sup>1</sup></p>	<p>Governance/Corporate Responsibility Oversight &amp; Enterprise Risk Management (pp. 80-86)</p>
<p><b>204-1</b> Proportion of spending on local suppliers</p>	<p><i>We do not currently track spending based on proximity to the end destination of given products, resources, or services.</i></p>
<p><b>OG1</b> Volume and type of estimated proved reserves and production</p>	<p>Key Performance Metrics/Key Data Summary (p. 11)  <a href="#">2021 10-K</a> (pp. 12-18)</p>
<p><b>GRI 205: Anti-Corruption 2016*</b></p>	
<p><b>103-2</b> The management approach and its components</p>	<p>Strategy (pp. 6-9)                  Governance/Ethics &amp; Integrity (pp. 78-79)  <a href="#">Business Conduct Guidelines</a>  <a href="#">Anti-Corruption Compliance Policy</a></p>
<p><b>103-3</b> Evaluation of the management approach<sup>1</sup></p>	<p>Governance/Corporate Responsibility Oversight &amp; Enterprise Risk Management (pp. 80-86)  <a href="#">Business Conduct Guidelines</a></p>
<p><b>205-2</b> Communication and training about anti-corruption policies and procedures</p>	<p>Governance/Ethics &amp; Integrity (pp. 78-79)                  Corporate Responsibility Oversight &amp; Enterprise Risk Management/ESG Policies &amp; Documents (p. 84)</p>

<b>GRI 301: Materials 2016*</b>	
<b>103-2</b> The management approach and its components	Strategy (pp. 6-9) Environment/Water/Protecting Water Resources (pp. 34-36) Communities/Minimizing Local Impacts (pp. 64-65) Governance (pp. 71-86)
<b>103-3</b> Evaluation of the management approach <sup>1</sup>	Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 80-86)
<b>301-1</b> Materials used by weight or volume	Environment/Water/Protecting Water Resources (pp. 34-35) Environment/Land/Solid Waste Management (p. 39)  <i>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 <a href="#">FracFocus</a> database in all of its operating areas.</i>
<b>GRI 302: Energy 2016*</b>	
<b>103-2</b> The management approach and its components	Environment/Climate Change & Emissions (pp. 16-29) Communities/Minimizing Local Impacts (pp. 64-65) Governance (pp. 71-86)
<b>103-3</b> Evaluation of the management approach <sup>1</sup>	Environment/Climate Change & Emissions (pp. 16-29) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 80-86)
<b>302-4</b> Reduction of energy consumption	Environment/Climate Change & Emissions (pp. 16-29)
<b>GRI 303: Water and Effluents 2018</b>	
<b>103-1</b> Explanation of the material topic and its Boundary	Strategy/Key Issues (p. 9) Environment/Water (pp. 30-36) Appendix/Reporting Boundaries (p. 109)
<b>103-2</b> The management approach and its components	Strategy (pp. 6-9) Environment/Water (pp. 30-36) Communities/Minimizing Local Impacts (pp. 64-65) Governance (pp. 71-86)
<b>103-3</b> Evaluation of the management approach <sup>1</sup>	Environment/Water (pp. 30-36) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 80-86)
<b>303-1</b> Interactions with water as a shared resource	Environment/Water/Water Use (p. 30)  <i>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 <a href="#">World Resources Institute Aqueduct Water Risk Atlas</a>.</i>
<b>303-2</b> Management of water discharge-related impacts	Environment/Water/Responsible Produced Water Management/Wastewater Disposal (p. 34)
<b>303-3</b> Water withdrawal	Key Performance Metrics/Water Use & Recycling Metrics (p. 11) Environment/Water/Water Use (p. 30)
<b>303-4</b> Water discharge	Environment/Water/Responsible Produced Water Management/Wastewater Disposal (p. 34)

<b>OG5</b> Volume and disposal of formation or produced water*	Key Performance Metrics/Key Data Summary (p. 11) Key Performance Metrics/Water Use & Recycling Metrics (p. 11) Environment/Water/Responsible Produced Water Management (pp. 33-34)
<b>GRI 304: Biodiversity 2016*</b>	
<b>103-1</b> Explanation of the material topic and its Boundary	Strategy/Key Issues (p. 9) Environment/Land/Surface Impacts & Biodiversity (p. 37) Appendix/Reporting Boundaries (p. 109)
<b>103-2</b> The management approach and its components	Strategy/Key Issues (p. 9) Environment/Land/Surface Impacts & Biodiversity (p. 37) Communities/Minimizing Local Impacts (pp. 64-65) Governance (pp. 71-86)
<b>103-3</b> Evaluation of the management approach <sup>1</sup>	Environment/Land/Surface Impacts & Biodiversity (p. 37) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 80-86)
<b>304-2</b> Significant impacts of activities, products, and services on biodiversity	Environment/Water/Fresh Water Neutral (pp. 31-32) Environment/Land/Surface Impacts & Biodiversity (p. 37)
<b>304-3</b> Habitats protected or restored	Environment/Water/Fresh Water Neutral (pp. 31-32) Environment/Land/Surface Impacts & Biodiversity (p. 37)
<b>304-4</b> IUCN Red List species and national conservation list species with habitats in areas affected by operations	Environment/Land/Surface Impacts & Biodiversity (p. 37)
<b>GRI 305: Emissions 2016</b>	
<b>103-1</b> Explanation of the material topic and its Boundary	Strategy/Key Issues (p. 9) Environment/Climate Change & Emissions (pp. 16-29) Appendix/Reporting Boundaries (p. 109)
<b>103-2</b> The management approach and its components	Strategy (pp. 6-9) Environment/Climate Change & Emissions (pp. 16-29) Communities/Minimizing Local Impacts (pp. 64-65) Governance (pp. 71-86)
<b>103-3</b> Evaluation of the management approach <sup>1</sup>	Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 80-86)
<b>305-1</b> Direct (Scope 1) GHG emissions	Strategy (pp. 6-9) Key Performance Metrics/GHG Emissions Metrics (p. 12) Environment/Climate Change & Emissions (pp. 28-29)
<b>305-4</b> GHG emissions intensity	Key Performance Metrics/GHG Emissions Metrics (p. 12) Environment/Climate Change & Emissions (pp. 28-29)
<b>GRI 306: Waste 2020</b>	
<b>103-1</b> Explanation of the material topic and its Boundary	Strategy/Key Issues (p. 9) Environment/Water (pp. 30-36) Environment/Land/Solid Waste Management (p. 39) Appendix/Reporting Boundaries (p. 109)

<b>103-2</b> The management approach and its components	<a href="#">Strategy (pp. 6-9)</a> <a href="#">Environment/Water (pp. 30-36)</a> <a href="#">Environment/Land/Solid Waste Management (p. 39)</a> <a href="#">Communities/Minimizing Local Impacts (pp. 64-65)</a> <a href="#">Governance (pp. 71-86)</a>
<b>103-3</b> Evaluation of the management approach <sup>1</sup>	<a href="#">Environment/Water (pp. 30-36)</a> <a href="#">Environment/Land/Solid Waste Management (p. 39)</a> <a href="#">Governance/Corporate Responsibility Oversight &amp; Enterprise Risk Management (pp. 80-86)</a>
<b>306-1</b> Waste generation and significant waste-related impacts	<a href="#">Key Performance Metrics/Spill Metrics (p. 11)</a> <a href="#">Environment/Land/Preventing Spills (p. 38)</a> <a href="#">Environment/Land/Solid Waste Management (p. 39)</a>
<b>306-2</b> Management of significant waste-related impacts	<a href="#">Key Performance Metrics/Spill Metrics (p. 11)</a> <a href="#">Environment/Land/Preventing Spills (p. 38)</a> <a href="#">Environment/Land/Solid Waste Management (p. 39)</a>
<b>GRI 307: Environmental Compliance 2016</b>	
<b>103-1</b> Explanation of the material topic and its Boundary	<a href="#">Strategy/Key Issues (p. 9)</a> <a href="#">Appendix/Reporting Boundaries (p. 109)</a>
<b>103-2</b> The management approach and its components	<a href="#">Strategy (pp. 6-9)</a> <a href="#">Environment/Land/Solid Waste Management (p. 39)</a> <a href="#">Communities/Minimizing Local Impacts (pp. 64-65)</a> <a href="#">Governance (pp. 71-86)</a>
<b>103-3</b> Evaluation of the management approach <sup>1</sup>	<a href="#">Governance/Corporate Responsibility Oversight &amp; Enterprise Risk Management (pp. 80-86)</a>
<b>307-1</b> Non-compliance with environmental laws and regulations	<i>In 2021 we had no significant fines and no significant nonmonetary sanctions for noncompliance with environmental laws and regulations.</i>
<b>GRI 308: Supplier Environmental Assessment 2016*</b>	
<b>103-2</b> The management approach and its components	<a href="#">Communities/Minimizing Local Impacts (pp. 64-65)</a> <a href="#">Health &amp; Safety/Occupational Safety (pp. 41-47)</a> <a href="#">Workforce/Contractor Management (p. 60)</a>
<b>103-3</b> Evaluation of the management approach <sup>1</sup>	<a href="#">Health &amp; Safety/Occupational Safety (pp. 41-47)</a> <a href="#">Workforce/Contractor Management (p. 60)</a> <a href="#">Governance/Corporate Responsibility Oversight &amp; Enterprise Risk Management (pp. 80-86)</a>
<b>308-1</b> New suppliers that were screened using environmental criteria	<a href="#">Health &amp; Safety/Occupational Safety (p. 45)</a> <a href="#">Workforce/Contractor Management (p. 60)</a>  <i>We review contractor health, safety and environmental (HSE) management programs and performance, including on environmental issues, as part of a robust HSE audit program.</i>
<b>GRI 401: Employment 2016</b>	
<b>103-1</b> Explanation of the material topic and its Boundary	<a href="#">Strategy/Key Issues (p. 9)</a> <a href="#">Health &amp; Safety/Health &amp; Well-Being (pp. 51-52)</a> <a href="#">Workforce/Talent Acquisition &amp; Development (pp. 54-55)</a> <a href="#">Appendix/Reporting Boundaries (p. 109)</a>

<p><b>103-2</b> The management approach and its components</p>	<p>Strategy (<a href="#">pp. 6-9</a>)                  Health &amp; Safety/Health &amp; Well-Being (<a href="#">pp. 51-52</a>)                  Workforce/Talent Acquisition &amp; Development (<a href="#">pp. 54-55</a>)                  Governance (<a href="#">pp. 71-86</a>)</p>
<p><b>103-3</b> Evaluation of the management approach<sup>1</sup></p>	<p>Health &amp; Safety/Health &amp; Well-Being (<a href="#">pp. 51-52</a>)                  Workforce/Talent Acquisition &amp; Development (<a href="#">pp. 54-55</a>)                  Governance/Corporate Responsibility Oversight &amp; Enterprise Risk Management (<a href="#">pp. 80-86</a>)</p>
<p><b>401-2</b> Benefits provided to full-time employees that are not provided to temporary or part-time employees</p>	<p>Health &amp; Safety/Health &amp; Well-Being (<a href="#">pp. 51-52</a>)                  Workforce/Talent Acquisition &amp; Development (<a href="#">pp. 54-55</a>)</p> <p><i>We offer competitive pay and benefits. In addition to a base salary, our compensation program includes variable pay, stock-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 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 <a href="#">Careers webpage</a>.</i></p>
<p><b>GRI 403: Occupational Health and Safety 2018</b></p>	
<p><b>103-1</b> Explanation of the material topic and its Boundary</p>	<p>Strategy/Key Issues (<a href="#">p. 9</a>)                  Health &amp; Safety (<a href="#">p. 41</a>)                  Appendix/Reporting Boundaries (<a href="#">p. 109</a>)</p>
<p><b>103-2</b> The management approach and its components</p>	<p>Strategy (<a href="#">pp. 6-9</a>)                  Health &amp; Safety (<a href="#">pp. 41-51</a>)                  Governance (<a href="#">pp. 71-86</a>)</p>
<p><b>103-3</b> Evaluation of the management approach<sup>1</sup></p>	<p>Health &amp; Safety (<a href="#">pp. 41-51</a>)                  Governance/Corporate Responsibility Oversight &amp; Enterprise Risk Management (<a href="#">pp. 80-86</a>)</p>
<p><b>403-1</b> Occupational health and safety management system</p>	<p>Health &amp; Safety (<a href="#">pp. 41-42</a>)                  Governance (<a href="#">pp. 85-86</a>)</p> <p><i>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 externally audited at this time.</i></p>
<p><b>403-2</b> Hazard identification, risk assessment, and incident investigation</p>	<p>Health &amp; Safety (<a href="#">pp. 42-46</a>)                  Governance/Health, Safety &amp; Environmental Management (<a href="#">pp. 85-86</a>)</p>
<p><b>403-3</b> Occupational health services</p>	<p>Health &amp; Safety/Health &amp; Well-Being (<a href="#">pp. 49, 51-52</a>)                  Governance/Health, Safety &amp; Environmental Management (<a href="#">pp. 85-86</a>)</p>
<p><b>403-4</b> Worker participation, consultation, and communication on occupational health and safety</p>	<p>Health &amp; Safety/Occupational Safety (<a href="#">pp. 41-52</a>)                  Workforce/ONE Team Culture (<a href="#">pp. 58-59</a>)</p>
<p><b>403-5</b> Worker training on occupational health and safety</p>	<p>Health &amp; Safety (<a href="#">pp. 45-46</a>)</p>
<p><b>403-6</b> Promotion of worker health</p>	<p>Health &amp; Safety (<a href="#">pp. 41-52</a>)</p>

<b>403-7</b> Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Health & Safety ( <a href="#">pp. 41-52</a> ) Workforce/ONE Team Culture ( <a href="#">pp. 58-59</a> ) Workforce/Contractor Management ( <a href="#">p. 60</a> )
<b>403-8</b> Workers covered by an occupational health and safety management system	Health & Safety ( <a href="#">pp. 41-42</a> ) Governance/Health, Safety & Environmental Management ( <a href="#">pp. 85-86</a> ) <i>Our health and safety management systems apply to employees and contractors who work on SWN sites.</i>
<b>403-9</b> Work-related injuries	Key Performance Metrics/Safety Performance Metrics ( <a href="#">p. 13</a> ) Health & Safety/Occupational Safety ( <a href="#">p. 47</a> )  <i>We report industry-standard data related to health and safety to the American Exploration and Product Council on an annual basis.</i>
<b>403-10</b> Work-related ill health	Health & Safety ( <a href="#">p. 49</a> )
<b>GRI 404: Training and Education 2016</b>	
<b>103-1</b> Explanation of the material topic and its Boundary	Strategy/Key Issues ( <a href="#">p. 9</a> ) Health & Safety/Occupational Safety ( <a href="#">pp. 45-46</a> ) Workforce/Talent Acquisition & Development ( <a href="#">p. 54</a> ) Appendix/Reporting Boundaries ( <a href="#">p. 109</a> )
<b>103-2</b> The management approach and its components	Health & Safety/Occupational Safety ( <a href="#">pp. 45-46</a> ) Workforce/Talent Acquisition & Development ( <a href="#">p. 54</a> ) Governance ( <a href="#">pp. 71-86</a> )
<b>103-3</b> Evaluation of the management approach <sup>1</sup>	Governance/Corporate Responsibility Oversight & Enterprise Risk Management ( <a href="#">pp. 80-86</a> )
<b>404-1</b> Average hours of training per year per employee	Health & Safety/Safety Training ( <a href="#">pp. 45-46</a> )
<b>404-2</b> Programs for upgrading employee skills and transition	Health & Safety/Occupational Safety ( <a href="#">pp. 45-46</a> ) Workforce/Talent Acquisition & Development ( <a href="#">p. 54</a> )
<b>404-3</b> Percentage of employees receiving regular performance and career development reviews	Workforce/Talent Acquisition & Development ( <a href="#">p. 54</a> )
<b>GRI 405: Diversity and Equal Opportunity 2016</b>	
<b>103-1</b> Explanation of the material topic and its Boundary	Strategy/Key Issues ( <a href="#">p. 9</a> ) Workforce/Diversity & Inclusion ( <a href="#">pp. 56-57</a> ) Appendix/Reporting Boundaries ( <a href="#">p. 109</a> )
<b>103-2</b> The management approach and its components	Strategy ( <a href="#">pp. 6-9</a> ) Workforce/Diversity & Inclusion ( <a href="#">pp. 56-57</a> ) Governance ( <a href="#">pp. 71-86</a> ) <a href="#">Equal Employment Opportunity Policy</a> <a href="#">Harassment and Discrimination Policy</a>
<b>103-3</b> Evaluation of the management approach <sup>1</sup>	Governance/Corporate Responsibility Oversight & Enterprise Risk Management ( <a href="#">pp. 80-86</a> )
<b>405-1</b> Diversity of governance bodies and employees	Key Performance Metrics/Governance Metrics ( <a href="#">p. 13</a> ) Key Performance Metrics/Workforce Performance Metrics ( <a href="#">p. 14</a> ) Workforce/Diversity & Inclusion ( <a href="#">pp. 56-57</a> )  <i>44% of our Board members are diverse based on gender, ethnicity and nationality. They are all over 50 years old.</i>

405-2 Ratio of basic salary and remuneration of women to men	Workforce/Diversity & Inclusion ( <a href="#">pp. 56-57</a> )
<b>GRI 406: Non-Discrimination 2016*</b>	
103-2 The management approach and its components	Strategy ( <a href="#">pp. 6-9</a> ) Workforce/Diversity & Inclusion ( <a href="#">pp. 56-57</a> ) Governance ( <a href="#">pp. 71-86</a> ) <a href="#">Equal Employment Opportunity Policy</a> <a href="#">Harassment and Discrimination Policy</a>
103-3 Evaluation of the management approach <sup>1</sup>	Workforce/Diversity & Inclusion ( <a href="#">pp. 56-57</a> ) Governance/Corporate Responsibility Oversight & Enterprise Risk Management ( <a href="#">pp. 80-86</a> ) <a href="#">Equal Employment Opportunity Policy</a> <a href="#">Harassment and Discrimination Policy</a>
<b>GRI 411: Rights of Indigenous Peoples 2016*</b>	
103-2 The management approach and its components	Communities/Community Engagement ( <a href="#">pp. 62-63</a> ) Communities/Minimizing Local Impacts ( <a href="#">pp. 64-65</a> ) Governance ( <a href="#">pp. 71-86</a> ) <a href="#">Human Rights Policy</a>  <i>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.</i>
103-3 Evaluation of the management approach <sup>1</sup>	Governance/Corporate Responsibility Oversight & Enterprise Risk Management ( <a href="#">pp. 80-86</a> )
<b>GRI 413: Local Communities 2016</b>	
103-1 Explanation of the material topic and its Boundary	Strategy/Key Issues ( <a href="#">p. 9</a> ) Communities ( <a href="#">pp. 61-70</a> ) Appendix/Reporting Boundaries ( <a href="#">p. 109</a> )
103-2 The management approach and its components	Communities ( <a href="#">pp. 61-70</a> ) Governance/Stakeholder Engagement ( <a href="#">p. 76</a> ) Governance ( <a href="#">pp. 71-86</a> )
103-3 Evaluation of the management approach <sup>1</sup>	Communities ( <a href="#">pp. 61-70</a> ) Governance/Stakeholder Engagement ( <a href="#">p. 76</a> ) Governance/Corporate Responsibility Oversight & Enterprise Risk Management ( <a href="#">pp. 80-86</a> )
413-1 Operations with local community engagement, impact assessments, and development programs	Environment/Water ( <a href="#">pp. 30-36</a> ) Environment/Land ( <a href="#">pp. 37-39</a> ) Health & Safety/Occupational Safety ( <a href="#">pp. 41-42</a> ) Workforce/ONE Team Culture ( <a href="#">pp. 58-59</a> ) Communities ( <a href="#">pp. 61-70</a> ) Governance/Stakeholder Engagement ( <a href="#">p. 76</a> )
413-2 Operations with significant actual and potential negative impacts on local communities	Communities/Minimizing Local Impacts ( <a href="#">pp. 64-65</a> )

<b>GRI 414: Supplier Social Assessment 2016*</b>	
<b>103-2</b> The management approach and its components	Strategy (pp. 6-9) Workforce/ONE Team Culture (pp. 58-59) Workforce/Contractor Management (p. 60) Governance (pp. 71-86)
<b>103-3</b> Evaluation of the management approach <sup>1</sup>	Workforce/ONE Team Culture (pp. 58-59) Workforce/Contractor Management (p. 60) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 80-86)
<b>414-1</b> New suppliers that were screened using social criteria	Health & Safety/Occupational Safety (pp. 41-46) Workforce/Contractor Management (p. 60)
<b>GRI 415: Public Policy 2016*</b>	
<b>103-2</b> The management approach and its components	Governance (pp. 71-86)
<b>103-3</b> Evaluation of the management approach <sup>1</sup>	Strategy (pp. 6-9) Governance (p. 79)
<b>Setting Appropriate Targets and Metrics*</b>	
<b>103-1</b> Explanation of the material topic and its Boundary	Strategy/Key Issues (p. 9) Health & Safety/Occupational Safety (pp. 41-43) Environment/Climate Change & Emissions (pp. 16-29) Appendix/Reporting Boundaries (p. 109)
<b>103-2</b> The management approach and its components	Environment/Climate Change & Emissions (pp. 16-29) Health & Safety/Occupational Safety (pp. 41-43)
<b>103-3</b> Evaluation of the management approach <sup>1</sup>	Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 80-86)
<b>Managing Contractors*</b>	
<b>103-1</b> Explanation of the material topic and its Boundary	Strategy/Key Issues (p. 9) Workforce/ONE Team Culture (pp. 58-59) Workforce/Contractor Management (p. 60) Appendix/Reporting Boundaries (p. 109)
<b>103-2</b> The management approach and its components	Strategy (pp. 6-9) Workforce/ONE Team Culture (pp. 58-59) Workforce/Contractor Management (p. 60) Governance (pp. 71-86)
<b>103-3</b> Evaluation of the management approach <sup>1</sup>	Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 80-86)

<sup>1</sup> We review management of economic, social and environmental issues as part of our regular business performance review processes and make changes as needed based on these evaluations.

\* Not required for GRI Core option

## 2021-22 SASB INDEX

The [Sustainability Accounting Standards Board \(SASB\)](#) is an independent, nonprofit organization that sets standards to guide the disclosure of financially

material 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
<b>Greenhouse Gas Emissions</b>	<b>EM-EP-110a.1:</b> Gross global Scope 1 emissions, percentage methane, percentage covered under emissions-limiting regulations	Key Performance Metrics/GHG Emissions Metrics ( <a href="#">p. 12</a> ) Environment/Climate Change & Emissions ( <a href="#">pp. 28-29</a> )
	<b>EM-EP-110a.2:</b> 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	Key Performance Metrics/GHG Emissions Metrics ( <a href="#">p. 12</a> ) Environment/Climate Change & Emissions ( <a href="#">pp. 28-29</a> )
	<b>EM-EP-110a.3:</b> 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 ( <a href="#">pp. 16-29</a> )
<b>Water Management</b>	<b>EM-EP-140a.1:</b> 1) Total fresh water withdrawn, (2) total fresh water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Key Performance Metrics/Water Use & Recycling Metrics ( <a href="#">p. 11</a> ) Environment/Water ( <a href="#">pp. 30-36</a> )  <i>We do not operate in any areas of baseline water stress based on the <a href="#">World Resources Institute Aqueduct Water Risk Atlas</a>.</i>
	<b>EM-EP-140a.2:</b> Volume of produced water and flowback generated; percentage (1) discharged, (2) injected, (3) recycled; hydrocarbon content in discharged water	Key Performance Metrics/Water Use & Recycling Metrics ( <a href="#">p. 11</a> ) Environment/Water/Responsible Produced Water Management ( <a href="#">pp. 33-34</a> ) <i>There are no hydrocarbons in the water SWN discharges.</i>
	<b>EM-EP-140a.3:</b> Percentage of hydraulically fractured wells for which there is public disclosure of all fracturing fluid chemicals used	Environment/Water/Protecting Water Resources ( <a href="#">pp. 34-36</a> ) <i>SWN discloses that information to the <a href="#">FracFocus</a> database in all of its operating areas.</i>
	<b>EM-EP-140a.4:</b> Percentage of hydraulic fracturing sites where ground or surface water quality deteriorated compared to a baseline	Environment/Water/Protecting Water Resources ( <a href="#">pp. 34-36</a> )
<b>Biodiversity Impacts</b>	<b>EM-EP-160a.1:</b> Description of environmental management policies and practices for active sites	Environment/Water/Fresh Water Neutral ( <a href="#">pp. 31-32</a> ) Environment/Land/Surface Impacts & Biodiversity ( <a href="#">p. 37</a> )
	<b>EM-EP-160a.2:</b> Number and aggregate volume of hydrocarbon spills, volume in Arctic, volume impacting shorelines with ESI rankings 8-10, and volume recovered	Key Performance Metrics /Spill Metrics ( <a href="#">p. 11</a> ) Environment/Land/Preventing Spills ( <a href="#">p. 38</a> )  <i>SWN does not operate in the Arctic or near shorelines with ESI rankings 8-10.</i>
	<b>EM-EP-160a.3:</b> 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 ( <a href="#">p. 37</a> )

<b>Security, Human Rights &amp; Rights of Indigenous Peoples</b>	<b>EM-EP-210a.1:</b> Percentage of (1) proved and (2) probable reserves in or near areas of conflict	<i>SWN does not operate near any areas of conflict or have any proved or probably reserves in or near areas of conflict.</i>
	<b>EM-EP-210a.2:</b> Percentage of (1) proved and (2) probable reserves in or near indigenous land	Communities/Community Engagement/Protecting Cultural Resources & Engaging With Tribes (p. 63) <i>See note for GRI 411, 103-2</i>
	<b>EM-EP-210a.3:</b> Discussion of engagement processes and due diligence practices with respect to human rights, indigenous rights, and operation in areas of conflict	Communities/Community Engagement (pp. 62-63) Communities/Minimizing Local Impacts (pp. 64-65)  <i>See note for EM-EP-210a.1</i>
<b>Community Relations</b>	<b>EM-EP-210b.1:</b> Discussion of process to manage risks and opportunities associated with community rights and interests	Communities/Community Engagement (pp. 62-63) Communities/Minimizing Local Impacts (pp. 64-65)
<b>Workforce Health &amp; Safety</b>	<b>EM-EP-320a.1:</b> (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	Key Performance Metrics/Safety Performance Metrics (p. 13) Health & Safety/Key 2021 Metrics (p. 40) Health & Safety/Occupational Safety (p. 47)
	<b>EM-EP-320a.2:</b> Discussion of management systems used to integrate a culture of safety throughout the exploration and production lifecycle	Health & Safety/Occupational Safety (pp. 41-46) Workforce/ONE Team Culture (pp. 58-59) Workforce/Contractor Management (p. 60) Governance (pp. 85-86)
<b>Business Ethics &amp; Transparency</b>	<b>EM-EP-510a.1:</b> Percentage of (1) proved and (2) probable reserves in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	<i>Not applicable; all of SWN's operations are in the U.S.</i>
	<b>EM-EP-510a.2:</b> Description of the management system for prevention of corruption and bribery throughout the value chain	Governance/Ethics & Integrity (pp. 78-79) <a href="#">Business Conduct Guidelines</a> <a href="#">Anti-Corruption Compliance Policy</a>
<b>Critical Incident Risk Management</b>	<b>EM-EP-540a.1:</b> Process Safety Event (PSE) rates for Loss of Primary Containment (LOPC) of greater consequence (Tier 1)	Key Performance Metrics/Spill Metrics (p. 11) Environment/Land/Preventing Spills (p. 38)

ACTIVITY METRIC	PAGE/RESPONSE
<b>EM-EP-000.A:</b> Production of: (1) oil, (2) natural gas, (3) synthetic oil, and (4) synthetic gas	<a href="#">2021 10-K</a> , pp. 14, 51-52 <a href="#">Operations</a>
<b>EM-EP-000.B:</b> Number of offshore sites	<i>Not applicable; SWN does not have any offshore operations</i>
<b>EM-EP-000.C:</b> Number of terrestrial sites	<a href="#">2021 10-K</a> , pp. 49-50

## 2021-22 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
<b>TCFD-G1:</b> Board's oversight of climate-related risks and opportunities.	Environment/Climate Change & Emissions/Governance ( <a href="#">p. 27</a> ) Governance/Corporate Responsibility Oversight & Enterprise Risk Management ( <a href="#">pp. 80-86</a> )
<b>TCFD-G2:</b> Management's role in assessing and managing climate-related risks and opportunities.	Environment/Climate Change & Emissions/Governance ( <a href="#">p. 27</a> ) Governance/Corporate Responsibility Oversight & Enterprise Risk Management ( <a href="#">pp. 80-86</a> )
Strategy	
Indicator	Page/Response
<b>TCFD-S1:</b> Climate-related risks and opportunities the organization has identified over the short, medium and long term.	Strategy/Key Issues ( <a href="#">p. 9</a> ) Environment/Climate Change & Emissions/Strategy ( <a href="#">pp. 16-26</a> ) Governance/Corporate Responsibility Oversight & Enterprise Risk Management ( <a href="#">pp. 80-86</a> ) <a href="#">202110-K</a> ( <a href="#">pp. 30-31, 40-41, 44-45</a> )
<b>TCFD-S2:</b> Impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.	Environment/Climate Change & Emissions/Strategy ( <a href="#">pp. 16-26</a> )
<b>TCFD-S3:</b> Resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	Environment/Climate Change & Emissions/Strategy ( <a href="#">pp. 16-26</a> )
Risk Management	
Indicator	Page/Response
<b>TCFD-R1:</b> Organization's processes for identifying and assessing climate-related risks.	Strategy/Key Issues ( <a href="#">p. 9</a> ) Environment/Climate Change & Emissions ( <a href="#">p. 22-25, 27</a> ) Governance/Corporate Responsibility Oversight & Enterprise Risk Management ( <a href="#">pp. 80-86</a> )
<b>TCFD-R2:</b> Organization's processes for managing climate-related risks.	Strategy/Key Issues ( <a href="#">p. 9</a> ) Environment/Climate Change & Emissions ( <a href="#">p. 16-29</a> ) Governance/Corporate Responsibility Oversight & Enterprise Risk Management ( <a href="#">pp. 80-86</a> )
<b>TCFD-R3:</b> How processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.	Environment/Climate Change & Emissions/Governance ( <a href="#">p. 27</a> ) Governance/Corporate Responsibility Oversight & Enterprise Risk Management ( <a href="#">pp. 80-86</a> )
Metrics and Targets	
Indicator	Page/Response
<b>TCFD-M1:</b> Metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	Key Performance Metrics/GHG Emissions Metrics ( <a href="#">p. 12</a> ) Environment/Climate Change & Emissions/Metrics & Targets ( <a href="#">pp. 28-29</a> )
<b>TCFD-M2:</b> Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas emissions, and the related risks.	Key Performance Metrics/GHG Emissions Metrics ( <a href="#">p. 12</a> ) Environment/Climate Change & Emissions/Metrics & Targets ( <a href="#">pp. 28-29</a> )

**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/Metrics & Targets ([pp. 28-29](#))  
Environment/Water/Fresh Water Neutral ([pp. 31-32](#))  
Governance ([pp. 71-75](#))

## 2021-22 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 (2020 edition)	Page/Response
<b>Governance and business ethics</b>		
<b>Governance and management systems</b>	GOV-1: Governance approach	Governance/Corporate Governance (pp. 71-75) Governance/Ethics & Integrity (pp. 78-79) <a href="#">Business Conduct Guidelines</a> <a href="#">Corporate Governance</a> <a href="#">Corporate Responsibility</a>
	GOV-2: Management systems	Strategy (pp. 6-9) Governance/Corporate Governance (pp. 71-75) Governance/Ethics & Integrity (pp. 78-79)
<b>Business ethics and transparency</b>	GOV-3: Preventing corruption	Governance/Ethics & Integrity (pp. 78-79) <a href="#">Business Conduct Guidelines</a> <a href="#">Anti-Corruption Compliance Policy</a>
	GOV-4: Transparency of payments to host governments	Communities/Economic Impacts (pp. 67-68)  <i>SWN does not have supply contractors 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.</i>
	GOV-5: Public advocacy and lobbying	Strategy/Key Issues (p. 9) Governance/Ethics & Integrity/Public Policy Engagement (p. 79)
<b>Climate change and energy</b>		
<b>Climate strategy and risk</b>	CCE-1: Climate governance and strategy	Strategy/Key Issues (p. 9) Environment/Climate Change & Emissions (pp. 16-29) Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 80-86)
	CCE-2: Climate risk and opportunities	Environment/Climate Change & Emissions (p. 26)
<b>Technology</b>	CCE-3: Lower-carbon technology	Environment/Climate Change & Emissions (pp. 18, 20-21, 26)
<b>Emissions</b>	CCE-4: Greenhouse gas (GHG) emissions	Key Performance Metrics/GHG Emissions Metrics (p. 12) Environment/Climate Change & Emissions/Metrics & Targets (p. 28)
	CCE-5: Methane emissions	Key Performance Metrics/GHG Emissions Metrics (p. 12) Environment/Climate Change & Emissions/Metrics & Targets (p. 28)

<b>Energy use</b>	CCE-6: Energy use	Key Performance Metrics/GHG Emissions Metrics (p. 12) Environment/Climate Change & Emissions/Metrics & Targets (p. 28)
<b>Flaring</b>	CCE-7: Flared gas	Environment/Climate Change & Emissions (pp. 20, 29)
<b>Environment</b>		
<b>Water</b>	ENV-1: Freshwater	Environment/Water (pp. 30-32)
	ENV-2: Discharges to water	Environment/Water/Responsible Produced Water Management (pp. 33-34)
<b>Biodiversity</b>	ENV-3: Biodiversity policy and strategy	Environment/Land/Surface Impacts & Biodiversity (p. 37)
	ENV-4: Protected and priority areas for biodiversity conservation	Environment/Land/Surface Impacts & Biodiversity (p. 37)
<b>Spills</b>	ENV-6: Spills to the environment	Key Performance Metrics/Spill Metrics (p. 11) Environment/Water (pp. 30-36) Environment/Land/Preventing Spills (p. 38)
<b>Materials management</b>	ENV-7: Materials management	Environment/Water/Protecting Water Resources (pp. 34-36) Communities/Minimizing Local Impacts (pp. 64-65) Governance (pp. 71-75)
<b>Decommissioning</b>	ENV-8: Decommissioning	Environment/Land/Solid Waste Management (p. 39)
<b>Safety, health and security</b>		
<b>Workforce protection</b>	SHS-1: Safety, health and security engagement	Health & Safety/Occupational Safety (pp. 45-46) Workforce/ONE Team Culture (pp. 58-59) Workforce/Contractor Management (p. 60)
	SHS-2: Workforce health	Health & Safety/Occupational Safety (pp. 41-47) Workforce/ONE Team Culture (pp. 58-59)
	SHS-3: Occupational injury and illness incidents	Key Performance Metrics/Safety Performance Metrics (p. 13) Health & Safety/Occupational Safety (pp. 43, 47)  <i>We report industry-standard data related to health and safety to the American Exploration and Product Council on an annual basis.</i>
<b>Product health, safety and environmental risk</b>	SHS-5: Product stewardship	Environment/Water/Right Products Program (p. 38)
<b>Process safety</b>	SHS-6: Process safety	Health & Safety/Asset Integrity (p. 48) Workforce/ONE Team Culture (pp. 58-59) Workforce/Contractor Management (p. 60)
<b>Security</b>	SHS-7: Security risk management	Governance/Corporate Responsibility Oversight & Enterprise Risk Management (pp. 80-83)
<b>Social</b>		
<b>Human rights management</b>	SOC-1: Human rights due diligence	<a href="#">Human Rights Policy</a>
	SOC-2: Suppliers and human rights	<a href="#">Human Rights Policy</a>
	SOC-3: Security and human rights	<a href="#">Human Rights Policy</a>

<b>Labor practices</b>	SOC-4: Site-based labor practices and worker accommodation	Workforce/ONE Team Culture (pp. 58-59) Workforce/Contractor Management (p. 60)
	SOC-5: Workforce diversity and inclusion	Workforce/Diversity & Inclusion (pp. 56-57)
	SOC-6: Workforce engagement	Workforce/Talent Acquisition & Development (p. 55)
	SOC-7: Workforce training and development	Health & Safety/Occupational Safety (pp. 45-46) Workforce/Talent Acquisition & Development (p. 54)
	SOC-8: Workforce non-retaliation and grievance mechanisms	Workforce/Diversity & Inclusion (pp. 56-57)
<b>Community engagement</b>	SOC-9: Local community impacts and engagement	Communities (pp. 61-70) Governance (p. 76)
	SOC-10: Indigenous peoples	Communities/Community Engagement (pp. 62-63) Communities/Minimizing Local Impacts (pp. 64-65) <a href="#">Human Rights Policy</a>
	SOC-11: Land acquisition and involuntary resettlement	Communities/Minimizing Local Impacts (pp. 64-65)
	SOC-12: Community grievance mechanisms	Communities/Minimizing Local Impacts (pp. 64-65)
	SOC-13: Social investment	Communities/Economic Impacts (pp. 67-68) Communities/Giving & Volunteering (pp. 69-70)
<b>Local content</b>	SOC-14: Local procurement and supplier development	Communities/Economic Impacts (pp. 67-68)  <i>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.</i>
	SOC-15: Local hiring practices	Communities/Economic Impacts (pp. 67-68)

## 2021-22 REPORT BOUNDARIES

The following table lists SWN’s most material issues and their boundaries. As part of our materiality analysis (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 material issue.

Material Issue	GRI Standard	Relevant Value Chain Stage	Primary Affected Stakeholders
<b>Economic Performance</b>			
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
<b>Governance</b>			
Setting appropriate metrics and incentives	None	Exploration, development, gathering and processing	Employees and contractors
Risk management	GRI 103 - Management Approach 2016	Exploration, development, gathering and processing	Employees, contractors, investors, local communities
Regulation/compliance	GRI 307: Environmental Compliance 2016	Exploration, development, gathering and processing	Employees and local communities
<b>Environment</b>			
Environmental management, policies, targets and metrics	GRI 103 - Management Approach 2016	Exploration, development, gathering and processing	Employees and contractors
Environmental performance monitoring	GRI 303: Water and Effluents 2018 GRI 305: Emissions 2016	Exploration, development, gathering and processing	Local communities
Climate-related risks and opportunities and emissions reductions	GRI 305: Emissions 2016	Exploration, development, gathering and processing	Local communities, product end users
Spill prevention and management; asset integrity	GRI 303: Water and Effluents 2018 GRI 306: Waste 2020	Exploration, development, gathering and processing	Employees, contractors, and local communities
Water quality, sourcing and wastewater management	GRI 303: Water and Effluents 2018	Exploration, development, gathering and processing	Local communities
Wellbore integrity	GRI 303: Water and Effluents 2018 GRI 306: Waste 2020 GRI 413: Local Communities 2016	Exploration and development	Local communities
<b>Communities</b>			
Community health and wellness	GRI 413: Local Communities 2016	Exploration, development, gathering and processing	Local communities

Material Issue	GRI Standard	Relevant Value Chain Stage	Primary Affected Stakeholders
Economic impact in local communities	GRI 203: Indirect Economic Impacts 2016 GRI 413: Local Communities 2016	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	Exploration, development, gathering and processing	Local communities
Proactive community engagement	GRI 413: Local Communities 2016	Exploration, development, gathering and processing	Local communities
<b>Workforce</b>			
Health and safety	GRI 403: Occupational Health and Safety 2018	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	Exploration, development, gathering and processing	Employees and contractors
Diversity and inclusion	GRI 405: Diversity and Equal Opportunity 2016	Exploration, development, gathering and processing	Employees
Managing contractors	None	Exploration, development, gathering and processing	Contractors



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