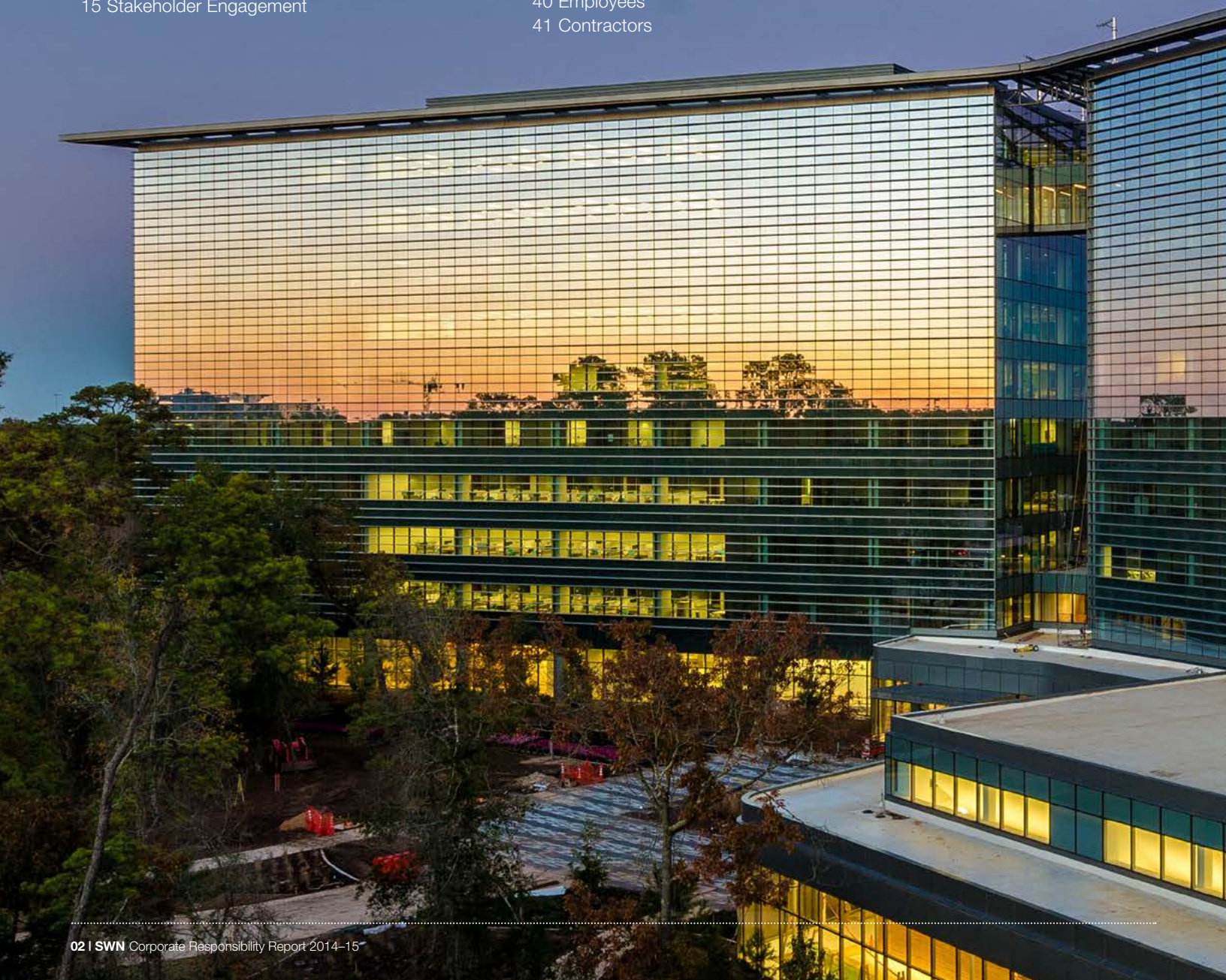

swn
Southwestern Energy®
A Clear Vision
SWN Corporate Responsibility Report 2014–15

CONTENTS



WELCOME

At Southwestern Energy (SWN), creating Value+ is our core mission, implemented through our culture of continuous improvement, innovation and responsibility. We are committed to creating value for our shareholders. We believe this is best achieved by focusing not only on economic excellence and operational efficiency, but also on providing a safe and healthy workplace for our people, acting with integrity, being respected members of the communities in which we operate, and being good environmental stewards by helping solve challenges such as water quality and availability and minimizing our impacts on air quality and climate. In short, we know we can create greater value for our shareholders by bringing value to a broader group of stakeholders, including the communities where we work and live. This corporate responsibility report provides insight into the nature of our operations, how we conduct our business, and our goals, strategy and performance.

About This Report

This report was prepared in accordance with the Global Reporting Initiative (GRI) G4 Guidelines at the Core level. A separate GRI index, including specific reporting boundaries, can be found online at **www.swn.com/cr**. More information on the GRI Guidelines is available at **www.globalreporting.org**. This report includes 2014 data as well as prior years' data and context around our most material issues. Unless otherwise noted, it covers all of our operations, which are currently located in the United States and Canada.

A team led by SWN's Senior Vice President of V+ Resource Development, which included subject matter experts from across the company, was responsible for developing and finalizing this report. Prior to publication, the report was reviewed and approved by SWN's leadership team – including our Chief Executive Officer; President and Chief Operating Officer; Chief Financial Officer; and the President of V+ Development Solutions – as well as by the Health, Safety, Environment and Corporate Responsibility Committee of our Board of Directors.

MESSAGE FROM OUR CEO

Southwestern Energy has grown rapidly in recent years by applying innovative approaches to the exploration and development of unconventional natural gas resources. In 2008, we were barely among the top 30 largest producers of natural gas in the lower 48 states; today we're the third largest. In December 2014 and January 2015, we completed acquisitions of additional assets in West Virginia and Pennsylvania.

Some were surprised that we made these investments at a time of low and falling product prices, but we understand that the quality of the assets provides the crucial first step to success. My perspective is that quality, combined with our expertise, creates the ability to consistently provide great returns for our shareholders, even in a price environment that many consider low.

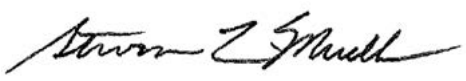
Our commitment to the environment can be seen in how we conduct our core business. Through dialogue with external stakeholders, we have identified two ambitious goals: becoming freshwater neutral and helping our industry to achieve a methane leakage and loss rate of less than 1 percent of production for the entire natural gas supply chain.

Safety is also an essential part of who we are. We are continually reviewing how we work, with the target of achieving zero injuries and accidents. But the real goal is to make safety like breathing – to make it a natural, everyday part of each person in every situation.

We are also committed to engaging with the communities in which we operate. With the technological changes in our industry, we're now developing vast gas reservoirs that will produce for years to come. We aim to build relationships that last, operating responsibly and creating value for our shareholders, our people and our communities.

> Innovation has been a key driver behind the execution and success of our operations. We apply that same innovation to solving challenges in our industry.

SWN has been a key industry leader in the development of unconventional resources, and innovation has been a key driver behind the execution and success of our operations. We apply that same innovation to solving challenges in our industry. Our V+ Development Solutions group was formed to do just that. It's not just about competitive advantage; it's about finding long-term solutions for the entire industry.



Steven L. Mueller
CEO and Chairman

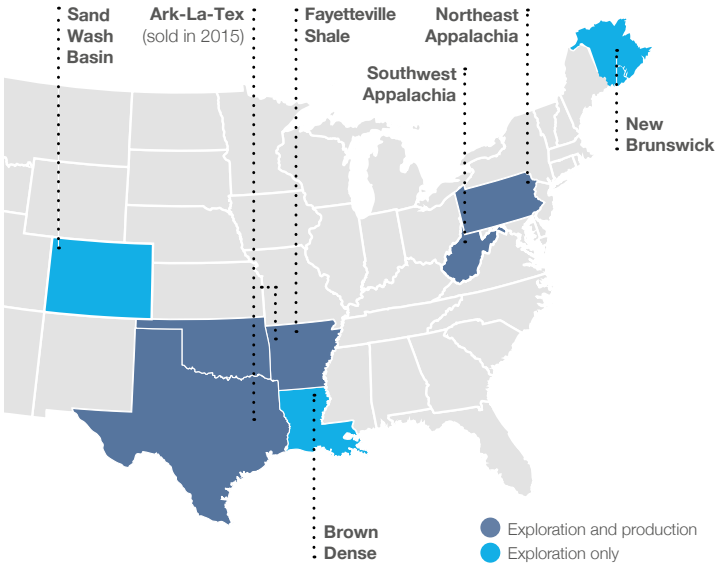
ABOUT SWN

Southwestern Energy is an independent energy company that conducts natural gas and crude oil exploration, development, production, gathering and marketing. In 2014, our production was almost all natural gas, primarily from two unconventional[1] natural gas reservoirs in the United States: the Fayetteville Shale in Arkansas and the Marcellus Shale in northeast Pennsylvania. Approximately 64 percent of our production came from the Fayetteville Shale.

In December 2014 and January 2015, we acquired additional assets in West Virginia and southwest Pennsylvania that target natural gas, natural gas liquids and crude oil, as well as additional acreage in the Marcellus Shale in northeast Pennsylvania. Also in 2014, we purchased acreage in northwest Colorado and are commencing exploration and development on those properties. We hold exploration leases for about 4.9 million acres that are undeveloped, primarily in Colorado, Louisiana and New Brunswick, Canada.

A list of our major operating companies and subsidiaries is included online in the separate appendix to this report, and a brief history of our company can be found on our website.[2]

WHERE WE OPERATE AND EXPLORE



KEY DATA SUMMARY

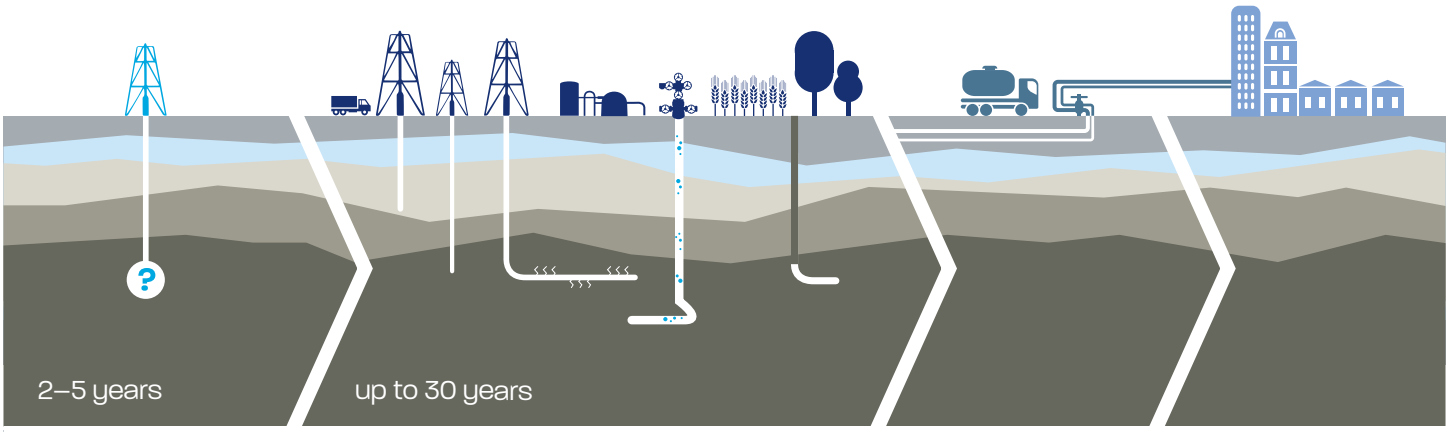
	2012	2013	2014
Operating Revenues (millions of U.S. dollars)	$2,730	$3,371	$4,038
Net Gas Production (billion cubic feet equivalent (Bcfe))	565	657	768
Number of Gross Producing Wells	4,717	5,213	6,887
Estimated Proved Oil and Gas Reserves (Bcfe)	4,018	6,976	10,747
Net Undeveloped Acres	4.4 million	4.6 million	4.9 million
Number of Employees	2,427	2,621	2,781
Flowback and Produced Water Recycled in the Fayetteville Shale and the Marcellus Shale (%)	81%	99%	99%
Greenhouse Gas Emissions Intensity (kilograms of carbon dioxide equivalents per million BTUs of gas produced)	3.45	3.18	2.73
Methane Leak/Loss Rate (%)	0.21%	0.18%	0.16%
Volume of Tier 1 Unplanned Discharges (barrels)	2,368	152	192
Charitable Giving (millions of U.S. dollars)	$2.02	$1.80	$3.35
Total Recordable Incident Rate for Employees (per 100 employees)	1.40	1.18	1.14
Total Recordable Incident Rate for Contractors (per 100 contractors)	1.52	1.25	1.17

1 Conventional oil and gas resources can be extracted relatively easily using vertical wells. Unconventional resources include oil and gas that are more difficult to extract, such as that trapped deep underground in shale formations and requiring horizontal drilling and hydraulic fracturing. Nearly all of our natural gas operations in the Fayetteville Shale and the Marcellus Shale are of the unconventional type.

2 See www.swn.com/cr for the appendix and www.swn.com/aboutswn/Pages/ourhistory.aspx for our history.

OUR VALUE CHAIN

The following provides a brief snapshot of our natural gas operations at each stage in our value chain. Our oil operations incorporate a similar value chain tailored to oil production and use.



EXPLORATION	DEVELOPMENT	GATHERING AND PROCESSING	USE
During exploration we assess the potential for economically viable natural gas production. If our analysis indicates potential, we obtain land rights, engage with local landowners and community members and conduct limited exploratory drilling to determine if production would, in fact, be viable.	Natural gas well development includes four phases: **1.** Drilling **2.** Completion (i.e., preparing the drilled well for production, including hydraulic fracturing where needed) **3.** Production **4.** Well closure (when production is no longer economic)	During this phase, also commonly called "midstream" activities, natural gas is moved by pipelines to regional markets and may undergo treatment, processing and compression.	Ultimately, natural gas is delivered to end users for heating and cooling buildings, cooking food, generating electricity and powering motor vehicles. It is also used as feedstock in manufacturing, such as for fertilizers and plastics.

APPROACH

SWN creates Value+ by providing energy to our world. Since 1999, we have been guided by our Formula (see p. 03), which represents the essence of our corporate philosophy and how we operate. This Formula guides our business strategy and our corporate responsibility strategy.

Business Strategy

By implementing our business strategy, our production in 2014 grew by 17 percent compared to 2013, and our total proved reserves increased by 54 percent to approximately 10.7 trillion cubic feet equivalent.

Corporate Responsibility Strategy

Our approach is based on seeking shared value; implementing innovative solutions to challenges; and engaging with a wide range of stakeholders, from the local level to the national and global levels.

Q&A with Mark Boling

"Our goal is to find solutions to the challenges of unconventional resource development that strike the right balance among the economic, environmental and social impacts of our activities."

STRATEGY

We are focused on providing long-term growth in the net asset value per share of our business by developing projects that target a value creation of at least $1.30 discounted at 10 percent for every dollar we invest.

The key elements of our business strategy are as follows:

- Exploit and develop our positions in the Fayetteville Shale and the Appalachian Basin
- Grow through new exploration, acquisition and development activities focusing on emerging unconventional plays
- Maximize efficiency through economies of scale
- Enhance value through vertical integration including drilling and gathering operations

By implementing this business strategy and seeking long-term growth, our production in 2014 grew by 17 percent compared to 2013, and our total proved reserves increased to the highest level in our company's history, growing by 54 percent to approximately 10.7 trillion cubic feet equivalent. Our northeast Appalachia division drove our overall production growth, with gross operated production surpassing 1.0 billion cubic feet equivalent (Bcfe) per day at year-end 2014 compared to 700 million cubic feet equivalent per day at year-end 2013. Our Fayetteville Shale division also had one of its best-producing years ever. In its tenth year of development, production in the Fayetteville Shale increased to 494 Bcfe in 2014, up from 486 Bcfe in 2013.

Our corporate responsibility (CR) strategy is linked to our business strategy of creating value for our shareholders, as both are based on our Formula. We believe that energy exploration, production and use can be done in a safe and environmentally sound manner while benefiting local and national communities and economies. Integral to this strategy is the health and safety of our employees and the contractors who work for us; safety is essential to every aspect of our business. Our CR approach is based on seeking shared value; implementing innovative solutions to challenges; and engaging with a wide range of stakeholders, from those most affected by our operations at the local level to thought leaders and policymakers at the national and global levels.

Our V+ Development Solutions division embodies this approach. The division includes our Health, Safety and Environment (HSE) team, which focuses on the safety and environmental compliance of our operations, and our Strategic Solutions team, which is committed to finding and building solutions for achieving the proper balance among the economic, environmental and social impacts of our activities. V+ Development Solutions focuses in particular on advancing the development of America's abundant supply of natural gas as an essential part of achieving a secure, low-carbon energy future.

Two Key Programs

Through V+ Development Solutions, we have created programs to address two key environmental issues: water use and methane emissions. Our Energy Conserving Water (ECH_2O®) initiative addresses all aspects of water use and protection and includes a goal to become freshwater neutral by the end of 2016. Our work on methane includes launching and leading an industry coalition – Our Nation's Energy Future (ONE Future™) – to voluntarily reduce methane emissions across the full value chain to less than 1 percent of production.

Granville Martin
Managing Director, Sustainable Finance, JPMorgan Chase & Co.

"SWN clearly recognizes that their ability to operate is connected to how they manage their environmental impacts and their approach to stewardship. That's why they are leading the industry in tackling critical issues such as fugitive methane emissions. Why is this important to us as a financial institution? In part because we believe a company's approach to environmental stewardship is indicative of how the company is run overall. And on that score, SWN is very well managed.

Identifying Our Key Issues

In preparing this report, we conducted an analysis of SWN's most important corporate responsibility issues. The analysis included a review of internal and external documents representing the views of SWN, the company's employees and major external stakeholders, including investors, suppliers, local communities, regulators and nongovernmental organizations (NGOs). The documents included stakeholders' views about SWN's activities specifically, as well as hydraulic fracturing and natural gas development in general. We also interviewed approximately 40 internal and external stakeholders and then analyzed the value chain of SWN's operations to ensure we considered the full range of potential impacts and key stakeholders at each value chain stage.

Based on these inputs, we identified approximately 250 individual topics, which were ultimately grouped into 29 issues of medium to high importance in six categories: economic performance, governance, health and safety, environment, communities and workforce. We used the value chain analysis to determine whether the impacts occurred primarily internally or externally to the organization and which stakeholders were most impacted by each issue.

We then used the resulting ranking of these issues as a basis for selecting the GRI indicators to report. We believe this process for determining the content for this report meets the requirements of the GRI G4 Guidelines at the Core level and satisfies the GRI principles for defining report content, sustainability context, materiality, completeness and stakeholder inclusiveness. The analysis will be reviewed and updated in the future as appropriate.

Key Issues[3]

INCREASING CONCERN TO STAKEHOLDERS

High

Governance
- *Stakeholder and shareholder engagement*

Environment
- *Chemical use and management*

Economic Performance
- Company financial health
- Shareholder return
- Volatility in product pricing

Governance
- Metrics, targets and incentives
- Reporting/transparency
- Risk management

Health and Safety
- Working conditions
- Training

Environment
- Environmental management, policies, target and metrics
- Greenhouse gas emissions and energy use
- Impacts of transporting materials
- Regulation/compliance
- Site impacts/site development
- Waste
- Water quality, sourcing and wastewater management
- Well construction, integrity and closure

Communities
- Economic impact in local communities
- Impacts on community infrastructure
- Proactive community engagement
- Social license to operate

Workforce
- Workforce training and development
- Managing contractors

Environment
- *Naturally occurring radioactive materials*
- *Seismic activity*

Communities
- *Working with indigenous/sensitive populations*

Environment
- *Threatened and endangered species*

Workforce
- *Talent attraction and retention, local hiring*

Medium

Medium — INCREASING IMPACT ON SWN — High

3 Note that within each quadrant the categories are listed in the order their respective sections appear in the report, not in order of importance. Also note that the matrix includes only those issues found to be of high or medium impact to SWN and/or concern to stakeholders, with the issues of highest importance in the upper right quadrant.

Q&A WITH OUR PRESIDENT OF V+ DEVELOPMENT SOLUTIONS

Mark Boling, President of V+ Development Solutions, offered his thoughts on SWN's key corporate responsibility and sustainability challenges and opportunities.

Q *What is your vision of the energy industry of the future?*

A Our industry touches three of the top five problems facing humanity over the next 50 years – energy, water and protection of the environment. (The other two are food and poverty.) We have an opportunity to make a real difference in helping to solve these problems and meeting human needs. The "economic benefits" argument for why we should develop natural gas resources is not enough.

In fact, it's a false choice to say we must choose either the environment or the economy. We need a balanced approach that follows the historical "decarbonization" of the energy industry, without disrupting the rest of the system or destroying both the energy industry and the economy built upon it. That's where natural gas fits a neat niche. It's the lowest-carbon fossil fuel and we believe an essential part of achieving a secure, low-carbon energy future. At SWN, we are passionate about natural gas because we truly believe it is the right solution.

Q *Is the expansion of natural gas and renewable energy at odds?*

A Not at all. In 2013 and 2014, we cosponsored an event at the National Renewable Energy Laboratory and several workshops around the nation focused on getting renewables and natural gas to work together. There are a number of synergies there. Wind, solar and even hydro are intermittent power sources – the sun doesn't always shine, the wind doesn't always blow and water scarcity may limit flow over hydroelectric dams. Thus no one can rely on these sources being available at any given time. And coal and nuclear electric generation cannot ramp up and down quickly like natural-gas-fired generators can. Natural gas is complementary to renewables; it fills in when they are unavailable, and thus enables them to join the mix and continue to grow. Plus, with large domestic reserves, prices for natural gas are down, which allows gas to replace coal on the electric grid. The natural gas industry and the renewables industry need to continue to collaborate for a low-carbon energy future.

Q *What's the role of regulation in managing risks in the energy industry?*

A Smart regulation is good for our industry and our company. It's the equivalent of effective risk management. With the right regulations, everyone is required to take the same precautions to minimize risk and mitigate the negative impacts of their operations. We also need to recognize that smart regulation is not possible if there is an information gap separating actual risk and perceived risk. Perceived risk – what regulators and the public believe the actual risks are – drives regulations for our industry. Perceived risk will move closer to actual risk with collaboration and information exchange, so that smart regulations can be enacted and our social license to operate can be preserved.

Jim Kibler
Senior Vice President, External Affairs and Public Policy, AGL Resources

"AGL Resources is the largest natural-gas-only utility in America, and SWN is one of our natural gas suppliers. I have been impressed by the company culture. Utilities typically focus on risk, whereas E&P [exploration and production] companies tend to focus on reward. SWN manages to combine the value-seeking, entrepreneurial spirit of an E&P with the long-view, risk-mitigation, engage-with-communities culture of a utility.

Q *What are SWN's biggest challenges, and how are you approaching them?*

A Our industry has done a great job of being innovative below the ground. We need to continue applying that same innovative spirit to challenges above ground level. Our goal is to find solutions to the challenges of unconventional resource development that strike the right balance among the economic, environmental and social impacts of our activities.

Take water, for instance. Like energy, water is a precious resource that has several competing uses. Every industry needs to develop methods to conserve and hopefully eliminate the need for fresh water. This will be a big challenge for our industry going forward. Methane emissions are clearly another challenge that must be addressed. We believe it is important to do everything we reasonably can to ensure that natural gas remains the "greenest" fossil fuel available. We are actively working to do this through our ECH$_2$O and ONE Future programs.

Q *What role does engagement and collaboration play in delivering solutions to challenges?*

A Engagement with stakeholders in collaborative, problem-solving dialogues is essential to identifying and implementing effective solutions to the challenges of unconventional resource development. We need to reach out to our biggest critics, so we can understand where they are coming from and they can understand where we are coming from. It has taken us a while to develop relationships with groups like The Nature Conservancy and the Environmental Defense Fund. But we have, and we have found areas of common ground. It is this foundation that has allowed us to identify and tackle some of the more difficult issues.

Q *Any final thoughts?*

A To fulfill the promise of natural gas, we need to engage in straight talk and open dialogue about the real risks to responsible development, and about what we are doing to mitigate those risks. It's something we have to get right, and we can get it right.

GOVERNANCE

At Southwestern Energy, we know that strong corporate governance is essential to enhance the long-term value of the company for our shareholders. Strong governance is also critical for ensuring that we operate in an environmentally, socially and economically responsible manner, so that we can meet or exceed the expectations of the broad array of stakeholders interested in our operations.

New Board Committee
In early 2015, SWN's Board of Directors created a new committee – the Health, Safety, Environment and Corporate Responsibility Committee – to assist the full Board in discharging its responsibilities relating to those issues.

Ethical Business Conduct
To help our employees and Board of Directors conduct their work in an ethical manner and in line with applicable laws and regulations, we have developed a detailed set of business conduct guidelines and train employees on them regularly.

Stakeholder Engagement
When stakeholders contact us, we listen and work to understand and respond as appropriate. We also seek out stakeholders to engage in problem-solving dialogues and productive partnerships.

BOARD OF DIRECTORS

SWN is governed by a Board of Directors elected by our shareholders. The Board sets general corporate strategy and selects the CEO and senior management, who are responsible for running the operations of the company, informing the Board of the status of such operations and seeking guidance and input from the Board. The Board monitors the performance of senior management to assure that they execute their responsibilities fully and in the interests of the company's shareholders. Our corporate governance guidelines encourage Board members to contact any senior officer at any time.

The Board discharges its duties in part through four standing committees: the Audit Committee, the Compensation Committee, the Nominating and Governance Committee, and the Health, Safety, Environment and Corporate Responsibility Committee.

Our company's governing documents and policies set forth many best practices for corporate governance, to assure that our Board acts in the best interests of and is responsive to our shareholders. These best practices include:

- Annual election of Directors by majority vote
- Seven of nine Directors independent under New York Stock Exchange listing standards
- A stipulation that only Independent Directors may serve on the Audit Committee, the Compensation Committee and the Nominating and Governance Committee
- Annual "say on pay" votes
- No supermajority requirements
- The ability of stockholders holding 20 percent of our common stock (determined on a "net long" basis) to call special meetings
- The ability of stockholders holding a majority of our common stock to act by written consent

The corporate governance section of our website contains a full list of current Board members, executive officers and key subsidiary officers; copies of our certificate of incorporation, bylaws, corporate governance guidelines and Board committee charters; many of our other policies, including those covering business ethics and anti-corruption; and information about how stakeholders can contact our Board of Directors.[4]

CORPORATE RESPONSIBILITY OVERSIGHT

While corporate responsibility issues have long been discussed and addressed by SWN's Board of Directors as a whole, in early 2015 the Board created a new committee – the Health, Safety, Environment and Corporate Responsibility Committee – specifically to monitor these issues. The purpose of this committee is to assist the full Board in discharging its responsibilities relating to:

- matters of health, safety and environment arising out of the company's activities and operations and their impact on employees, contractors and the communities in which the company operates, and
- current and emerging trends in social, political and public policy issues that may affect the company, its business and its reputation.

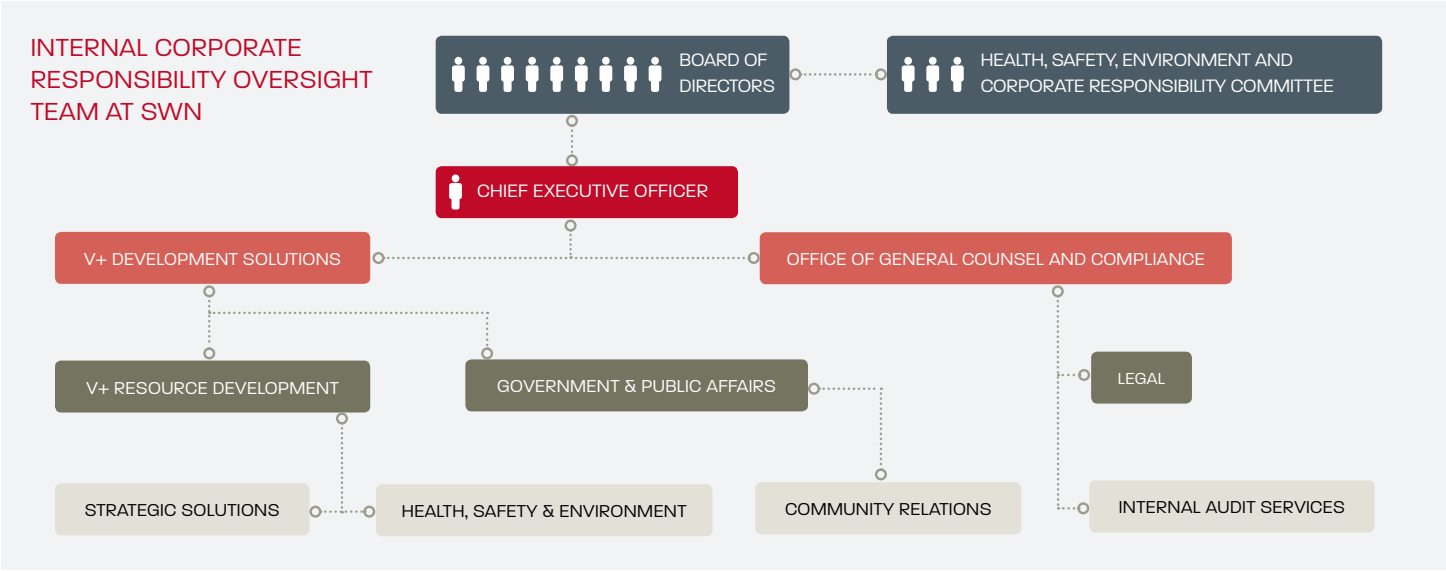
The committee currently has three members. The full Board – which retains responsibility for all corporate responsibility issues – considers reports from this committee and oversees SWN's strategic plans and objectives and compliance with applicable laws and regulations.

Our V+ Development Solutions division provides companywide guidance on most of the corporate responsibility issues addressed in this report, including those relating to health, safety and environment both internally and within our contractor community, as well as government affairs and community relations. Our operating divisions (i.e., Fayetteville, northeast Appalachia, southwest Appalachia, New Ventures, Midstream, and E&P Services) have day-to-day responsibility and accountability for managing these issues at the site level. Our General Counsel, who is also our Chief Compliance Officer, oversees corporate responsibility-related issues including ethics, compliance and internal audit services.

The President of V+ Development Solutions reports to our CEO. The President or another representative of V+ Development Solutions presents to our Board of Directors on a regular basis, to keep them apprised of key issues.

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.

4 www.swn.com/corporategovernance/Pages/default.aspx



Operating an Ethical Business

To ensure our employees and Board of Directors conduct their work in an ethical manner and in line with applicable laws and regulations, we have developed a detailed set of business conduct guidelines and train employees on them regularly.[5]

The guidelines cover a wide array of topics, such as:

- Conflicts of interest
- Interactions with government officials, including policies prohibiting bribery and corruption
- Employee relationships
- Protecting SWN assets
- Information technology
- Insider trading
- Antitrust matters
- Transactions between SWN affiliates

The guidelines also incorporate SWN's HSE policy, which states our commitment to protecting our natural environment and resources in all areas where we conduct business.

We have a code of ethics that applies specifically to our CEO, Chief Financial Officer and Chief Accounting Officer.[6] And, 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.[7]

As part of our internal control procedures, our Audit Services department conducts regular internal audits. These audits address a range of compliance issues, including compliance with our business conduct guidelines and code of ethics. Concerns raised by these audits are forwarded to our Chief Compliance Officer and the Audit Committee for disposition.

Health, Safety and Environmental Management

Our Health, Safety and Environment department ensures that the company meets all applicable safety and environmental standards. Within SWN's HSE department are the HSE Training team, Corporate HSE Compliance team, and Corporate HSE Management team, as well as HSE teams that support each of our operating divisions. The Corporate HSE teams administer our behavioral-based safety programs, SWN's HSE Management System, contractor HSE management and HSE assessments for our internal operations and our contractors.

HSE operations staff members are embedded in all key business units and provide guidance and support on day-to-day HSE activities and programs. For example, they develop and implement training strategies to reduce incidents, develop emergency response plans, conduct internal investigations, conduct external investigations involving contractors, communicate lessons learned and develop corrective measures to prevent the reoccurrence of incidents.

Our corporate HSE steering committee – which includes management representation from all business units and relevant corporate functions – guides policy and procedures for compliance and continuous improvement. In addition, each operating division or business unit has its own HSE committee, which reports to the steering committee, implements programs and monitors HSE performance and activities within its division. Business unit HSE committees include local management, HSE professionals and field operators.

5 www.swn.com/corporategovernance/Documents/businessconductguidelines.pdf

6 www.swn.com/corporategovernance/Documents/406ethics.pdf

7 www.swn.com/corporategovernance/Pages/confidentialcomplaints.aspx

We maintain an internal, comprehensive incident reporting system. HSE incidents, including near misses, are thoroughly investigated, and corrective measures are identified and implemented to minimize the chance of recurrence. Also, incidents and trends are tracked to enable a continuous focus on prevention. The annual incentive bonuses of applicable SWN employees are based in part on meeting safety and environmental goals and metrics. In 2014, we established a new initiative that measures management engagement in HSE using a balanced scorecard, which includes both leading indicators (e.g., management participation in safety meetings) and lagging indicators (e.g., organizational performance).

All of our HSE requirements apply to our employees and are minimum requirements for our third-party contractors. SWN's contractor management program falls under our Corporate HSE Compliance team.

PUBLIC POLICY ENGAGEMENT

The natural gas industry is affected by a wide array of laws and regulations at the national, state and local levels. At SWN, we support the development and implementation of science-based, smart regulations that foster prudent practices for our industry and are implemented in a consistent manner. Such regulations promote common standards and accountability, which in turn assures we are able to maintain our social license to operate. Our engagement in the regulatory process is managed by our senior executives and helps to ensure that policies and regulations that affect our company and industry are workable, are effective, and protect and enhance our company's interests.

In several cases we have worked proactively with policymakers and other stakeholders to craft regulations that will be both effective and workable in practice. For example, we worked with the Environmental Defense Fund (EDF) to create a model regulatory framework that can be used by states and federal agencies to guide their development of regulations designed to ensure the integrity of hydraulically fractured wells. The states of Arkansas, California, Ohio, Texas and North Carolina have since developed regulations that incorporate sections and technical themes from this framework. Also, SWN personnel have presented at workshops convened by the U.S. Environmental Protection Agency (EPA) on the topic of hydraulic fracturing, to help inform the agency's regulatory approach.

The Southwestern Energy Company PAC (the "SWN PAC") accepts voluntary contributions from certain eligible SWN employees and annual contributions of $5,000 from certain of the company's subsidiaries. SWN PAC operates two funds, one focused at the federal level and the other at the state level. SWN's political contributions policy and a list of all political contributions made by SWN or the SWN PAC are available on our website.[8]

STAKEHOLDER ENGAGEMENT

We are sensitive to the fact that multiple individuals and organizations have an interest in how we conduct our business. Our involvement with external stakeholders is rooted in a commitment to transparency and openness. When stakeholders contact us, we listen and work to understand and respond as appropriate. We also seek out stakeholders to engage in problem-solving dialogues and productive partnerships.

Examples of our interaction with stakeholders – such as our groundbreaking with The Nature Conservancy (TNC), pictured below, at the Archey Fork River in Arkansas – are shown in the table on the following page. Frequency of engagement is ad hoc unless otherwise stated.

8 www.swn.com/corporategovernance/Pages/politicalactions.aspx

STAKEHOLDER TYPE	HOW WE ENGAGE WITH THESE STAKEHOLDERS	
INVESTORS	• Financial reports and teleconferences (annually and quarterly) • Investor conferences (30 in 2014) • Meetings with institutional investors (more than 750 in 2014)	• Additional regular contact through our Investor Relations function • Direct contact with Board members
EMPLOYEES	• SWNet (internal internet) • *Connection* (quarterly employee newsletter) • Town-hall style meetings (quarterly by division, and quarterly with our CEO) • Surveys	• Support and networking groups • Leadership and professional development programs • Safety training • Ethics hotline • Day-to-day interaction
CONTRACTORS	• Safety Stand Down days and safety trainings • Contractor forums • Project meetings at SWN sites to address specific HSE issues and corrective actions	• *SWNlink* communications, including operational announcements and quarterly newsletters • Operational reviews by division management
CUSTOMERS	• Regular contact through our Marketing group	
LANDOWNERS AND HOLDERS OF MINERAL RIGHTS	• Direct, individual conversations and negotiations • Biannual newsletters	• Monthly payment statements to royalty owners • Landowner hotline
LOCAL COMMUNITIES (including residents, elected officials, community groups, chambers of commerce, emergency responders)	• Regular contact via SWN community liaisons • Hotlines to field concerns and questions • Everyday Heroes program events (annually in our operating areas) • Ongoing support of local organizations through fundraisers and charitable giving	• SWN employee volunteerism (typically monthly) • Crisis drills (annually) • Safety Stand Down days and safety trainings • Assistance with local disaster-relief efforts
STATE- AND FEDERAL-LEVEL GOVERNMENT OFFICIALS	• Personal communications • Educational sessions • Legislative and regulatory engagement	
ENVIRONMENTAL ORGANIZATIONS	• Participation with and funding of specific partnership projects • Joint research projects	• Direct communication with relevant SWN employees • Resources for technical assistance

HEALTH AND SAFETY

We are committed to promoting and protecting the health of our employees, their families, and communities. Safe behavior is a condition of employment for anyone who works for SWN, including contracted vendors working on SWN's behalf. Programs such as our behavior-based safety initiative enable our employees and contractors to understand SWN's expectations, and promote safety and health. Our continuous improvement is driven by establishing and communicating companywide health and safety goals each year. In addition, an HSE performance report containing a summary of incidents, success, root causes and opportunities for improvement is communicated monthly to employees throughout the organization.

Training
We offer more than 50 HSE courses for employees. In 2014, SWN employees completed 42,124 hours of HSE training, or nearly 16 hours per employee.

Performance
We reduced our Total Recordable Incident Rate (TRIR) for SWN employees by 19 percent from 2012 to 2014 and for SWN contractors by 23 percent during this same timeframe.

Health
We offer a range of programs to support employee health, including insurance options, free biometric screenings, mammograms, wellness programs and an on-site health clinic.

HSE PROGRAMS AND ACTIVITIES

In 2014, we created a centralized HSE Training group to develop and implement training for the whole company in collaboration with local field offices. This approach better enables standardized, high-quality HSE training across our operations. It also provides our field HSE staff more time on the ground to focus on their relationships with key employee, contractor and community groups and to identify and develop plans to mitigate potential risks.

We provide more than 50 HSE courses for employees, based on job function. To increase the efficacy of our training programs, we make them interactive, incorporating multiple learning styles and using scenario-based learning. Our courses include training on regulatory compliance based on job function, but they also go well beyond compliance. Many of our trainings are repeated on a regular basis to encourage continued learning and to reinforce key information. In 2014, SWN employees completed 42,124 hours of HSE training, or nearly 16 hours per employee.[9]

We have implemented a wide range of programs to support these training efforts and further safeguard employee health and safety. For example, we perform regular crisis drills with local emergency responders at all operating locations, and we hold periodic "safety stand downs" involving contractors, community leaders and government agencies, during which we stop work and focus on a safety issue. We also send out regular safety notifications to employees and contractors to keep safety issues "top of mind." We offer a range of employee health programs, including free biometric screenings, mammograms, wellness programs, and an on-site health clinic in our new Houston office. The following are some of our other key HSE programs.

Behavior-Based Safety and STOP® For Each Other[10]

In 2014, we began implementing a behavior-based safety program that is predicated on the belief that the vast majority of incidents are caused by human behaviors rather than work conditions (such as equipment malfunctions or site hazards). We are implementing the first element of this program – called STOP For Each Other for petroleum refining and oil and gas extraction – in 2014 and 2015. This program expands on the belief that all employees are responsible for safety and are empowered to keep themselves and others safe. Through STOP For Each Other, every SWN employee's training will be reinforced to better identify safe and unsafe behaviors among their co-workers and on strategies for engaging in critical conversations about the behaviors they observe, based on mutual respect and care for one another's safety. All field-level employees were trained in the STOP For Each Other approach as of July 2015, and office staff will be trained through the rest of 2015.

Driver Safety Training

All employees who have been issued a company vehicle or who may operate a rental car, pool vehicle or personal vehicle on company business must take a computer-based driver training course. Employees who drive on company business more frequently must also take an in-person, hands-on driver training course every three years. We have installed interactive vehicle feedback systems in all company-owned and -leased vehicles; these systems track driver performance and provide verbal coaching if drivers engage in certain behaviors such as exceeding the speed limit and aggressive braking.

Industrial Hygiene

We have established an industrial hygiene team to assess and manage occupational exposures to chemical, physical and biological risks in the workplace using qualitative and quantitative analyses. For example, SWN is committed to the prevention of silicosis – a respiratory disease related to silica dust exposure. Sand is used in hydraulic fracturing operations, which creates the potential for silica dust exposure. We have established a field monitoring program, and we are educating employees, developing controls and partnering with government and industry organizations to find solutions to prevent silica exposure. We also have a partnership with the National Institute for Occupational Safety and Health to better manage workplace chemical exposure.

Life Saver Pictograms

A cross-functional team identified high-risk activities associated with SWN operations, along with the safeguards and/or safe work practices that must be in place to complete these activities safely. The key safe work practices for these high-risk activities are now being displayed throughout the workplace in the form of Life Saver pictograms.

Project FOCUS

We know that reporting on and analyzing "near hits," or safety incidents that nearly occurred, is a key strategy for avoiding future incidents. We implemented Project FOCUS (Focus On Corrective Actions and Unsafe Acts) to support an increase in near-hit reporting and to improve the quality of corrective actions.

9 This includes facilitator-led and online compliance training. Safety training that is not compliance related is not included.

10 "STOP" stands for Safety Training Observation Program.

Short Service Employee Process

In 2015, we plan to roll out a new initiative for "short service employees," defined as an individual whose primary assignment is field operations and who has less than six months of service with the company or with their job function or role. Both SWN and contractor employees will participate in the program. The process will help to ensure safety for everyone on SWN sites, by clearly identifying and supporting employees and contractors who are new to their work.

STEPS Network

The National Service, Transmission, Exploration & Production Safety (STEPS) Network is a joint effort between the U.S. Occupational Safety and Health Administration (OSHA) and the exploration and production industry. It promotes safety, health and environmental practices with the goal of reducing injuries and fatalities in our industry. A SWN representative is the current chair of the Arkansas chapter of the STEPS Network and a member of the Appalachia chapter. The network forms focus groups to address relevant issues, meets regularly to share best practices, and works with other organizations such as OSHA, the International Association of Drilling Contractors, the American Petroleum Institute, the EPA, educational institutions and others.

Street Smart™

Street Smart
Southwestern Energy

We developed the Street Smart program to share our expectations for safe and considerate driving behavior to our contractors and to communicate our commitment to strictly adhere to all local, state and federal regulations. To date, more than 6,000 people have taken part in this program.

TEAMWorks

Our TEAMWorks course helps our employees and contractor partners understand SWN's culture, operations and values and the relevance of our Formula. The course focuses on empowering our employees to have difficult conversations with co-workers about key HSE topics and to identify and share innovations to improve performance and safety for all.

Training Assurance Program (TAP)

TAP communicates SWN's minimum HSE expectations to contractors. All contractors who engage in operations-related activities at any SWN location or site are required to participate in TAP. Our SWN operating personnel also complete the training so they understand what we have communicated to contractors and to refresh their HSE knowledge.

Worksmart™

swn
WorkSmart

Worksmart is an awareness-focused program that clearly communicates our HSE expectations and operational work programs and processes to SWN employees and contractors, helping to increase performance and ensure consistency across our operating areas. As part of the program, we create custom curricula and videos to reinforce work procedures and performance consistent with operational best practices and HSE standards required by SWN and regulation.

Hutton Andrew
Health, Safety and Environmental Coordinator, SWN

"I really believe safety is all about people and their behaviors. We want a safe environment for our people – our employees, contractors and communities – but safety is also determined by people. The choices we all make on the job day in and day out determine how safe we all are. We already care about each other and our safety, but behavior-based safety – and the STOP For Each Other program in particular – empower us to do something about it. At SWN, we are the Right People doing the Right Things. This program gives us the tools, knowledge and support we need to do the right thing: to stop an unsafe behavior we see before anything bad happens, recognize safe behaviors and – most importantly – to talk openly and also caringly with our colleagues about our behavior. This approach to safety is going to make our workplace and our communities safer. But it's also going to make our workplace more open and collaborative and, I believe, more effective overall.

Safety and Operations Training Center

SWN's Safety and Operations Training Center (SOTC) was designed to allow for effective training in a safe, controlled environment. The facility features a full-scale simulation training pad containing a wellhead, separators, meter runs, a production tank, a compressor, a chemical tank and measurement equipment designed to mimic a standard producing well location. In addition to wellhead equipment, the SOTC features horizontal and vertical separators that have been cut away to expose the interior. Between its opening in 2012 and the end of 2014, the SOTC had trained more than 3,600 people, including SWN employees, contractors and vendors, and students from the University of Arkansas Community College at Morrilton.

Jarrod Hughes shows a cutaway in a separator at the SOTC. Cutaways such as this allow people to see the inner workings of the equipment, which is not possible on an active job site.

Health and Safety Performance Summary

The following table includes health and safety data that are standard for our industry and that we report voluntarily to the American Exploration and Production Council each year.[11]

	2012	2013	2014
OSHA Total Recordable Incident Rate (TRIR)[12] (per 100 employees)	1.40	1.18	1.14
Severity Rate (Man-Hour Method)[13] (per 100 employees)	10.23	3.65	19.10[14]
DART Incident Rate[15] (per 100 employees)	0.72	0.36	0.64
Severity Rate (DART Method)[16] (per 100 employees)	0.24	0.18	0.22
Preventable Vehicle Incident Rate[17] (per million miles)	2.57	2.01	1.57
Contractors[18] OSHA TRIR (per 100 employees)	1.52	1.25	1.17

11 All data points in this table are specific to SWN employees only, except for the Contractors OSHA TRIR, which is specific to SWN contractors only and does not include SWN employees.

12 An incident is considered recordable if it results in death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, loss of consciousness or other significant injury or illness diagnosed by a physician or other licensed health care professional.

13 The man-hour method calculates severity by total number of man-hours.

14 This metric skewed upward in 2014 largely due to one incident that resulted in a single employee being away from work for an extended period.

15 The DART Incident Rate measures days away from work and days of restricted duty or job transfer.

16 The DART method calculates severity by total number of employees.

17 The Preventable Vehicle Incident Rate measures total preventable vehicle incidents multiplied by 1 million and divided by total mileage. All other rates are based on 100 employees working 200,000 hours (full time for one year) according to standard OSHA methodology (see www.bls.gov/iif/osheval.htm).

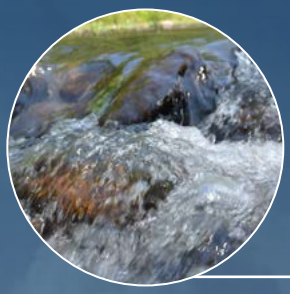
18 SWN began tracking this data for contractors in 2012.

ENVIRONMENT

SWN is committed to protecting natural resources in all areas where we operate. We seek to use water efficiently, protect underground and surface water resources, reduce our emission of greenhouse gases (GHGs) and non-GHG criteria air pollutants, and minimize surface impacts.

Our Key Environmental Goals

- To be **freshwater neutral** by the **end of 2016**
- To lead our industry in **reducing methane emissions to less than 1 percent** of production across the full natural gas value chain



Water

In 2014, we recycled 99 percent of our flowback and produced water in the Fayetteville Shale and the Marcellus Shale regions. This recycled water made up 40 percent of the total water we sourced for hydraulic fracturing in these basins – up from 28 percent in 2013.

Air

We launched the ONE Future coalition, a group of eight companies dedicated to reducing the leak/loss rate for methane, across the full natural gas value chain, to below 1 percent of production. Our own leak/loss rate from production operations was 0.16 percent in 2014.

Land

In our field operations, we seek to minimize site impacts, including preventing erosion and spills and protecting biodiversity. We minimize waste by operating closed-loop systems for managing used drilling mud.

WATER

We use water in several aspects of our operations. The primary usage in terms of volume is in the formulation of fracturing fluid, which is needed for the hydraulic stimulation process. We also use water for construction activities, well cement, drilling mud, dust control, line pressure testing, compressor station cooling and other minor operational functions.

Our ECH$_2$O® initiative – short for Energy Conserving Water – provides a framework for driving and supporting our efforts to protect, reduce, recycle and replenish the fresh water we use. Through ECH$_2$O, we have committed to being "freshwater neutral" by the end of 2016. For each gallon of fresh water we use in our operations, we will offset an equivalent amount through water conservation projects, such as those discussed on p. 26. The volumetric offset value of each conservation project is determined by a recognized third-party company with expertise in quantifying water benefits.

ECH$_2$O has four key components, which are described in this section: protection, reduction, conservation and innovation.

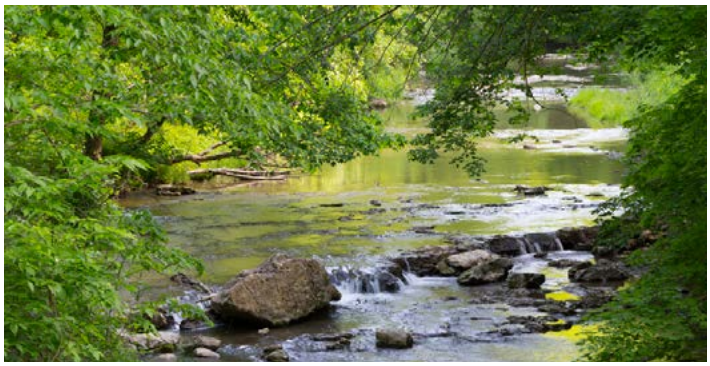
Our Goal:
To be freshwater neutral by the end of 2016

Freshwater Neutral:
Total Water – Recycled Water – Alternative Water = Conservation Offsets

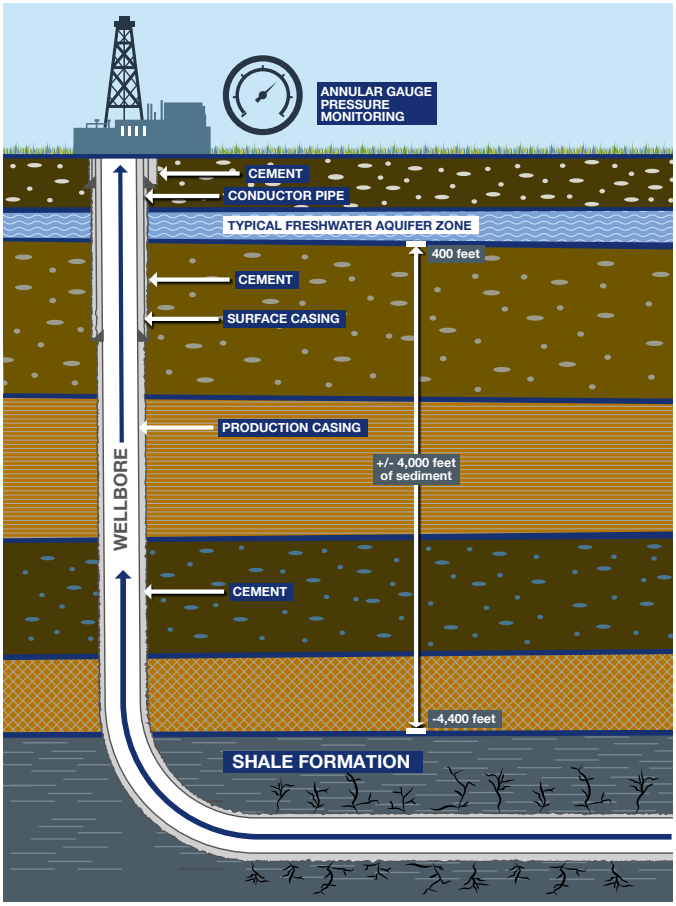
Protection[19]

We are committed to safeguarding all sources of fresh water and to never compromising the integrity of this resource. Hydraulic fracturing takes place thousands of feet below the Earth's surface – well below any underground aquifer containing water suitable for drinking. Our wellbores pass through these aquifers, however, which is why establishing and maintaining wellbore integrity is critical. Our processes are designed to ensure that none of the contents of our wells comes in contact with freshwater aquifers throughout the drilling, completion and entire production life of the well.

We employ industry best management practices (BMPs) for well construction, drilling, completion and maintenance to ensure this integrity. These BMPs meet and often exceed applicable regulations and are updated regularly as new technologies, operating practices and information become available. Examples of BMPs include baseline water-quality testing whenever possible; closely monitoring each phase of drilling, completion and production; and verifying the mechanical integrity of the steel casing protecting the freshwater zones.[20]



Ensuring Wellbore Integrity in a Typical Fayetteville Shale Well



Our Record

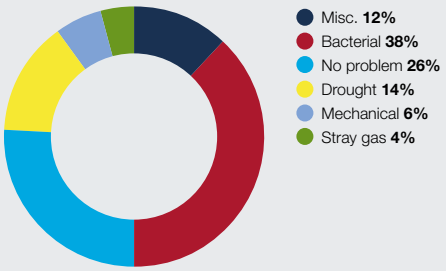
We have drilled approximately 4,950 unconventional wells in Arkansas and northeast Pennsylvania as of December 31, 2014. To date in those regions, we have recorded a total of 180 instances (i.e., 3.6 percent of wells drilled) where individuals have questioned whether our exploration and production operations may have affected their privately owned groundwater wells. We have investigated each of these instances, and as the pie chart on the following page illustrates, the majority of the claims were ultimately attributable to naturally occurring conditions (such as nuisance bacteria), leaking septic systems, mechanical failure of the water wells, or drought conditions. Investigations revealed that, in more than a quarter of all the claims, there were no problems with the water wells at all. And, as in all petroleum basins, naturally occurring stray gas or methane is ubiquitous. Our research and that conducted by federal governmental agencies and universities have confirmed that naturally occurring stray methane is common throughout our operational area.[21]

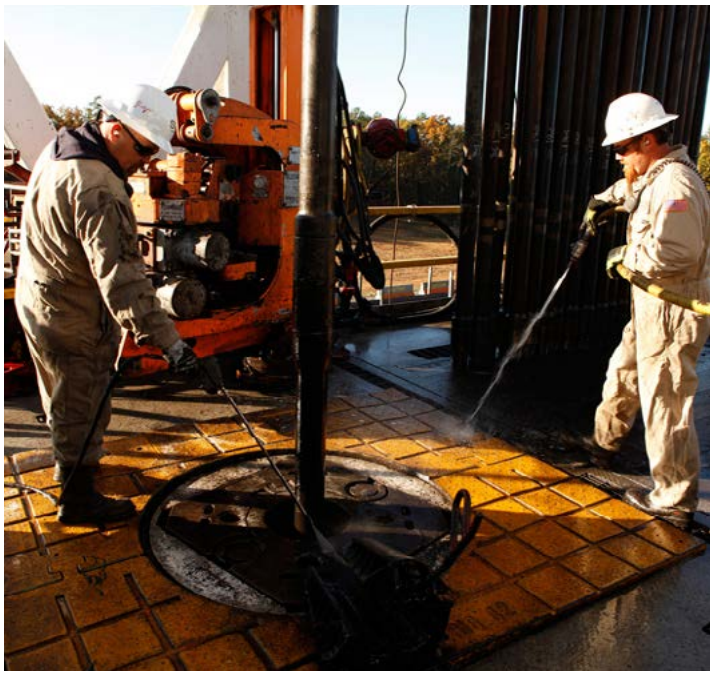
19 While this section focuses mostly on the protection of underground water, we are also committed to protecting surface water resources, as discussed on p. 31.

20 A casing is a hollow steel pipe. See www.swn.com/mediaroom/pages/Player_640_360.htm?video=%2Fmediaroom%2FVideo%2Fhsd.flv for a video that details our horizontal drilling and fracturing practices and how we seek to ensure wellbore integrity.

21 See, for example, http://pubs.usgs.gov/sir/2012/5273/.

WELL WATER IMPAIRMENT CLAIM FINDINGS, ARKANSAS AND NORTHEAST PENNSYLVANIA, TO DATE[22]





Fracturing Fluid

We support the full disclosure of fracturing fluid ingredients. We typically use "slickwater" completion designs[23] to fracture each well, and we report fracturing fluid composition for 100 percent of our hydraulically fractured wells to the voluntary FracFocus Chemical Disclosure Registry.[24] We were one of the first companies to do so.

The tables above right summarize, in general terms, what is in our fluid and why. Note that we do not use fracturing additives that include benzene, toluene, ethylbenzene or xylenes (BTEX) or diesel.

We do not use fracturing additives that include BTEX or diesel

OUR TYPICAL FRACTURING FLUID	
Water and Sand	99.90%
Biocides	00.02%
Friction Reducers	00.04%
Hydrochloric Acid	00.03%
Scale Inhibitors	00.008%
Corrosion Inhibitors	00.002%

ADDITIVE	PURPOSE	COMMON APPLICATION
Biocides (DBPNA (2,2-dibromo-3-nitrilopropionamide))	Eliminates bacteria in the water that can produce corrosive by-products	Disinfectant for drinking water, industrial water treatment
Friction reducers (polyacrylamide)	Minimizes friction between the fluid and the pipe	Water treatment, soil conditioner
Hydrochloric acid	Initiates the fracture process by dissolving carbonates	Cleaning and concrete etching agent; pH adjusting in swimming pools
Scale inhibitors (acrylic polymer)	Prevents scale deposits in the pipe; not always required	Industrial water treatment
Corrosion inhibitors (N, n-dimethyl-formamide)	Prevents corrosion of the pipe	Pharmaceuticals, acrylic fibers and plastics

The Right Products Program

SWN's Right Products program, launched in 2013, is helping us continue to reduce risks related to fracturing fluids. The program employs a hazard assessment scoring tool through which each chemical used in fracturing fluid is assessed against a range of environmental and health hazards (e.g., toxicity, bioaccumulation potential, appearance on a regulatory list of chemicals of concern, etc.).

In the past, determining the hazard potential of chemical additives used in completions has been challenging because vendors consider some of the chemical formulas to be proprietary. The Right Products program avoids this problem by using a neutral, third-party toxicologist to conduct the hazard assessments. The toxicologist provides the product's final evaluation score and what components made up that score, without revealing the exact percentages or chemical formula to SWN.

By the end of 2014, more than 90 percent of the chemicals we use in hydraulic fracturing had been evaluated through the Right Products program. The remainder will be evaluated in 2015. The process has enabled us to identify more environmentally friendly alternatives for several chemicals we previously used.

22 In this chart, "Misc." includes situations such as when no diagnosis was possible due to lack of landowner permission to sample the well, and "Mechanical" refers to a mechanical problem with the water well.

23 These designs require an average of 125,000 barrels of water (depending on the lateral length of the well) and several million pounds of sand, plus a small amount of additives. One barrel equals 42 gallons.

24 See www.fracfocus.org.

Advancing Our Knowledge of Groundwater Protection

We are committed to continually upgrading our knowledge regarding water protection and applying that knowledge to our operations. For example:

Together with CSI Technology, we received a research grant from the Research Partnership to Secure Energy for America, which is funded by the U.S. Department of Energy, to assess methods of isolating wellbores during construction and ways to prevent and remediate sustained casing pressure. The research began in early 2013 and will be completed in 2015.

In 2014, we provided Yale University with access to two future well pad locations in Pennsylvania, for a study to determine if drilling and completion activities affect groundwater chemistry or flow. Yale researchers drilled eight shallow groundwater monitoring wells near these SWN well sites (prior to our conducting drilling or fracturing) and will independently sample and monitor the groundwater wells over the next three years, before and after each phase of development.

We continue to fund an investigation by a graduate student from the University of Arkansas' Department of Geosciences. The student is assessing treatment options for nonpathogenic nuisance bacteria in groundwater wells, so we can better help landowners who face this issue. The study should be completed in 2015.

We funded a study with experts at the Colorado School of Mines regarding underground transport of proppant in a complex fracture system.[25] The study was presented at the Society of Petroleum Engineers' Hydraulic Fracturing Conference in February 2014 in The Woodlands, Texas.

Reduction

Today, water is essential for extracting oil and gas from tight shale formations. It is also an invaluable natural resource with ever-increasing demands for supply. In order to reach our freshwater neutral goal, we are working to minimize our freshwater use – both by reducing our overall water usage and by using alternatives to fresh water, such as recycled flowback and produced water.[26]

Our Water Usage and Recycling

Companywide, we used an average of 190,000 barrels of water every day in 2014. While that sounds like a lot, oil and gas extraction and production in fact require significantly less water than nearly all other fuel sources per unit of energy. In Arkansas, we are the most active natural gas driller in the state but use only about one-tenth of 1 percent of the water consumed in the state daily.

Even though water recycling is not required by law in Arkansas or Pennsylvania, we believe that water recycling is one of the keys to ensuring the long-term viability of modern natural gas and oil production. In 2014, we recycled 99 percent of the flowback water and produced water from our operations in the Fayetteville Shale in Arkansas and the Marcellus Shale in northeast Pennsylvania. This recycled water made up 40 percent of the total water we sourced for our hydraulic fracturing operations in these basins (up from 28 percent in 2013). The procedures for water recycling in Arkansas are now governed by state standards, which SWN helped to develop.

15% reduction achieved
in freshwater withdrawals compared to 2012

Through research and pilot trials, we continually seek ways to use less fresh water in our operations. We are investigating ways to replace fresh water with new sources of nonpotable water, such as process water from other industries and brackish groundwater that is disconnected from freshwater aquifers. In northeast Pennsylvania, our completions engineers have reduced water use by 13 percent by eliminating the standard use of "sweeps," or the pumping of clean fluid between each fracturing stage. Companywide, we decreased our total freshwater withdrawals by 15 percent in 2014 compared to 2012.

Our Water Management Infrastructure

We have developed infrastructure to responsibly manage both fresh water and the water we generate from our operations. In Arkansas, we have built ponds and impoundments to capture and store fresh water during the rainy season for use in the dry season. The stream and wetland impacts associated with the construction of the ponds were offset in the affected watershed through the construction of six mitigation areas.

25 *Proppant* is the material used to hold open the cracks in hydraulically fractured shale, so that the hydrocarbons can more easily flow into the well. We use sand as a proppant.

26 The terms *flowback water* and *produced water* are defined in state regulations, and the definitions differ in each state. In general, the terms refer to water that exits the well after hydraulic fracturing and during production. We typically recover between 10 and 25 percent of the water we use for hydraulic fracturing, depending on the operating area.

In the Marcellus Shale play in northeast Pennsylvania and the Brown Dense exploration play in Louisiana, we use tanks to capture flowback water. In Arkansas, we use permitted, double-lined pits to capture this water. All flowback water pits have leak-detection monitoring equipment between the two synthetic liners. We reduced the number of these pits from more than 350 in 2012 to less than 150 in 2014.

While our water infrastructure in Arkansas and northeast Pennsylvania has been developed over a number of years, we are now developing water infrastructure in our newer areas of operation, such as Colorado, southwest Pennsylvania and West Virginia. Our water managers are working with our exploration and early development teams as we initiate and grow our operations in these new plays. Together these teams are identifying and reviewing alternative water sources and designing infrastructure plans to maximize the efficient use of flowback and produced water, as well as other alternative water sources.

Water Data[27]

Freshwater Withdrawal by Source[28] (in thousands of barrels)

SOURCE	2012	2013	2014
Rivers	15,116	26,201	20,036
Ponds/Lakes	37,205	29,187	22,964
Groundwater	591	676	603
Water Utilities	1,783	1,612	2,968
Total Freshwater Withdrawals	**54,695**	**57,676**	**46,571**

Water Recycling

	2012	2013	2014
Total Water Sourced (thousands of barrels)	75,006	79,696	78,211
Total Volume that Is Recycled or Reused[29] (thousands of barrels)	20,311	22,020	30,593
Percentage of Total Water Sourced that Is Recycled Water (%)	27	28	40
Percentage of Flowback and Produced Water that We Recycled (%)	81	99	99

Wastewater Disposal

Although we have significantly increased our water recycling in recent years, we do still dispose of some wastewater. In a few areas in Arkansas and Texas, and in our exploration efforts elsewhere in the U.S., we dispose of this wastewater in deep injection wells. These wells store the wastewater thousands of feet underground in geologic units that either previously produced natural gas or contain nonpotable water. We formerly utilized five deep injection well facilities in Arkansas; due to our increases in water recycling, we were able to reduce this number to just one active facility by year-end 2013.

We do not send any wastewater to municipal treatment facilities. In Arkansas, we operate two of our own water treatment facilities, which are permitted by the state in accordance with the federal Clean Water Act. While we prefer to truck flowback and produced water directly from one site to another where it can be reused, we utilize these treatment facilities when movement from one drilling site to another is not feasible.

Supporting Research on Water Use and Treatment

To help us and our industry better understand and optimize water use and management, we conduct and support multi-stakeholder research. For example, we are working with a group of peer operating companies through the Energy Water Initiative, which is looking at the exploration and production water lifecycle, recycling and reuse, storage, treatment and disposal. Through this group, we co-sponsored a study, published in 2015, with 11 other operators to examine the water management practices utilized by each company.[30] The goal was to highlight the processes that are most effective for each company and share lessons learned.

We are also helping to sponsor a U.S. Geological Survey stream gauge study – set to be published in 2015 – to evaluate the effects of exploration and production operations in the Fayetteville Shale on baseline stream flows in the Ozark National Forest. And, we are sponsoring research by the Membrane Science, Engineering and Technology Center at the University of Arkansas (part of a National Science Foundation-sponsored organization headquartered at the University of Colorado – Boulder) looking at the use of membrane technology for desalinating flowback water.

27 The water data cover our drilling, completions, production and midstream services. The data include water used at the assets we purchased in Pennsylvania and West Virginia in late 2014, for the short period at the end of the year when we owned them. The additional Pennsylvania and West Virginia assets we purchased in early 2015 are not included. None of the data include our sand plant. All water used at our sand plant (except for drinking water) is sourced on location, from the facility's lake and four groundwater wells. This water is recirculated for reuse or, for a small portion, returned to the environment via evaporation.

28 Water data collection depends on records maintained for internal benchmarking or reporting to regulatory agencies. Volumes purchased from third-party water suppliers are included under "Water Utilities" unless greater water source granularity is available. "Ponds/Lakes" can include freshwater impoundments. No water was pulled from isolated wetlands or oceans for the years in scope.

29 These volumes include flowback and produced water, encountered water during drilling, and captured rainwater. Water recycled for fracturing purposes is recorded on completion reports submitted to applicable regulatory agencies. Reuse water can include volumes generated during drilling that have been treated off-site and returned for additional use.

30 www.swn.com/responsibility/documents/EWICaseStudiesreport.pdf

Conservation

As part of our ECH$_2$O initiative, we are working closely with government agencies, other industries and nonprofits such as TNC, Ducks Unlimited and Trout Unlimited to implement conservation projects that enhance or restore water quality, improve water availability and positively affect local watersheds. For each conservation project, we are using a recognized third-party company with relevant expertise to quantify the volumetric benefits in terms of gallons of water conserved, which we will then count toward our freshwater neutrality goal.

For example, SWN contributed $1.8 million to fund the Two Forks project near Clinton, Arkansas, which restored a 3.2-mile stretch of the Upper Little Red River. The project was led by TNC, in partnership with the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service (FWS), the Arkansas Game and Fish Commission and the City of Clinton. The Upper Little Red River was straightened and widened in the mid-1980s for flood control, which resulted in habitat loss for the yellowcheek darter (an endangered species of fish) and significant sediment loading due to riverbank cutting. The downstream sediment loading affected municipal water operations that provide drinking water for more than 200,000 people.

Scott Simon
Arkansas Director,
The Nature Conservancy

"As the result of SWN taking the initiative to contact us, and providing funding, the Upper Little Red River will now hold more water, have less sedimentation, and provide better wildlife habitat and fishing and recreation opportunities for local residents. We value SWN's willingness to work collaboratively and appreciate how they have followed through on the things they said they would do. Our office is now facilitating partnerships between SWN and other Nature Conservancy chapters around the country, so SWN can offset their water use and improve watersheds in all the regions in which they work.

TNC developed a restoration strategy that involved channel shaping and the construction of in-channel rock structures, with the goal of reducing stream bank erosion, restoring channel stability and improving aquatic habitat and water quality, while still managing floodwater flows. Construction began in mid-2013 and was completed in January 2015. As a result of this work, the yellowcheek darter has already been observed to have returned to this section of the river. The third-party company we consulted calculated the volumetric benefit from this project at 3 million barrels of water per year for five years; after five years the project will be re-evaluated.

In Pennsylvania, we have committed to a project that will address the problem of acid mine drainage (AMD) in the Upper Tioga River watershed, at the Fall Brook tributary. AMD is the runoff of acidic, metals-contaminated water from abandoned coal mines.[31] In some waterways, AMD has rendered the streams unable to sustain aquatic life. SWN is working with state and local governments to fund a project that will enable the collection, conveyance and treatment (through a series of constructed treatment basins) of the largest sources of AMD discharge in the Fall Brook tributary area. The project will restore five miles of Fall Brook and three miles of the Tioga River to a condition expected to support not only aquatic life, but eventually recreational fishing.

Innovation

Innovation is an essential part of our ECH$_2$O initiative. We are pursuing innovative technologies that will provide new means to treat or replace water, and developing new drilling and completion technologies directed at reducing water use while increasing natural gas and oil production.

For example, we are evaluating a variety of desalination technologies. In 2014, we conducted a field trial of a unit that allows us to remove the naturally occurring salts from our flowback and produced water at the well pad and return the water to the environment or reuse it for another well. The technology is now undergoing a longer-term field trial as we work on operational improvements and finalize operating costs. We also continue to test alternative methods for achieving high levels of productivity from fracturing operations while using less water.

Debbie Doss
Conservation Chair, Arkansas Canoe Club, and Member, Arkansans for Responsible Gas Drilling

"This [Upper Little Red River] project is absolutely wonderful. Restoring that river channel was an expensive, complex project that's been needed for a long time. We didn't really think it would ever happen, so it's like a dream come true. It has transformed a section of river that you couldn't get a boat down and turned it into a recreational area, as well as improving fish and wildlife habitat.

31 To be clear, these are not our coal mines. SWN has never conducted coal mining operations.

AIR[32]

SWN is committed to minimizing our company's GHG emissions and non-GHG criteria air pollutant emissions during the drilling, completion, production and midstream phases of our operations. Through our new ONE Future coalition, we are helping to lead the industry in reducing emissions of methane, the primary component of natural gas and a GHG.

Our Emissions

Our GHG emissions are primarily methane and carbon dioxide (CO_2), with very minor amounts of nitrous oxide. Our methane emissions are mostly associated with fugitive emissions (e.g., leaking valves, flanges or connectors), vented emissions (e.g., natural-gas-powered pneumatic controllers, compressor blowdowns) and the combustion of natural gas as fuel. Our key non-GHG air emissions include nitrogen oxides (NOx) and carbon monoxide (CO), most of which stem from the combustion of fuels, predominantly natural gas, to drive our equipment.[33]

The ONE Future Coalition

To pursue effective methane reduction policies and programs on a broader scale, we have applied what we have learned from the research described in the box below to create and launch the Our Nation's Energy Future (ONE Future) coalition. The ONE Future coalition is currently a group of eight companies[34] from across the natural gas supply chain that is dedicated to reducing methane emissions from the entire value chain to below an aggregate leak/loss rate of 1 percent – the point at which the use of natural gas for any purpose provides clear GHG reduction benefits as compared to any other fossil fuel. The ONE Future program was endorsed by the White House and the EPA as part of the Administration's methane reduction blueprint.[35]

The Lifecycle GHG Impacts of Natural Gas: Improving the Science

Natural gas emits far less CO_2, CO, NOx, sulfur dioxide (SO_2), particulate matter and mercury than coal or oil when it is burned. According to the U.S. Energy Information Administration, switching from coal to natural gas in the U.S. power generation sector averted more than 1 billion tons of CO_2 emissions alone from 2005 to 2013.[36]

There is growing consensus in the peer-reviewed literature that, over the full lifecycle, GHG emissions from natural gas use in the power sector are about 50 percent lower than coal,[37] and that SO_2 and NOx emissions are as much as 80 percent lower.

The *methane leak/loss* rate refers to the ratio of total methane emissions across the entire natural gas value chain (from wellhead to burner) to gross production. Since methane is a short-lived, climate-forcing GHG, a methane leak/loss rate of less than 1 percent of gross production ensures that natural gas provides a climatic benefit over other fossil fuels at all times for any end-use application (e.g., transportation, power, residential, commercial or industrial). Using the 2012 National Greenhouse Gas Inventory, the EPA estimated that the natural gas industry has a methane leak/loss rate of about 1.3 percent, or a loss of about 360 billion cubic feet per year of natural gas.

We participated in two recent studies led by the EDF that examined methane emissions from the production and gathering and processing segments of the natural gas supply system. The results of these studies have been published in peer-reviewed literature and utilized in updating emission factors and formulating emission-reduction policies in the United States.[38]

We have also teamed up with an IBM-led research team that has been awarded $4.5 million by the U.S. Department of Energy's Advanced Research Projects Agency-Energy (ARPA-E) to develop a new, low-cost optical sensors network that will enable enhanced methane leak detection from natural gas systems. In addition, we are working with an EDF-led group to develop the next generation of low-cost methane leak detectors. The ARPA-E project and the EDF methane detector challenge have the potential to revolutionize the detection and quantification of methane emissions. And finally, we are sponsoring a research project led by the Colorado School of Mines, the National Renewable Energy Laboratory and the National Oceanic and Atmospheric Administration that is designed to reconcile top-down and bottom-up methane emission estimates from various onshore basins in the United States.

32 This section reflects our focus as a company on reducing GHG emissions throughout our operations. Many of these efforts have also had the positive effect of reducing energy use – for example, employing a fleet of fuel-efficient, lean-burn compressor engines and utilizing dual-fuel drilling rigs. We have also reduced energy use in our administrative operations by moving to a LEED-certified headquarters building in Spring, Texas, and by operating out of a LEED-certified building in Conway, Arkansas, as discussed on p. 32.

33 The gas produced from the Fayetteville Shale and Marcellus Shale is very "lean." That is, it is predominantly methane with very little to no propane plus fractions. As a result, emissions associated with venting and storage activities in these regions do not contain significant amounts of volatile organic compounds.

34 AGL Resources, Apache Corporation, BHP Billiton, Columbia Gas Transmission, Hess Corporation, Kinder Morgan, Inc., National Grid and SWN.

35 www.whitehouse.gov/the-press-office/2015/01/14/fact-sheet-administration-takes-steps-forward-climate-action-plan-anno-1

36 www.eia.gov/environment/emissions/carbon/pdf/2013_co2analysis.pdf

37 www.pnas.org/content/111/31/E3167.full.pdf

38 www.pnas.org/content/110/44/17768; http://pubs.acs.org/doi/pdf/10.1021/es5040156; http://pubs.acs.org/doi/abs/10.1021/es504016r; www.atmos-meas-tech.net/8/2017/2015/amt-8-2017-2015.html; http://epa.gov/climatechange/ghgemissions/usinventoryreport/natural-gas-systems.html

How We Are Reducing Emissions

In 2014, our overall GHG emissions intensity was down 14 percent compared to 2013 and down 21 percent compared to 2012. We achieved these reductions in a number of ways. In 2014, we implemented a leak detection and repair program across our company's operations. We conducted infrared camera surveys on more than 3,000 wells (approximately 65 percent of SWN-operated wells) and more than 70 compressor stations (100 percent of SWN Midstream-operated compressor stations). The program identified and fixed more than 1,000 leaking components (representing 0.09 percent of our total component count), which resulted in the recovery of an estimated 350 million standard cubic feet of methane that otherwise would have been emitted to the atmosphere.

The major way we have minimized GHG emissions is through reduced-emission, or "green," completions. We began implementing green completions on wells in East Texas in the early 2000s. We then expanded the practice to our Fayetteville operations in 2011 and northeast Pennsylvania in 2012. In 2013, the EPA changed its regulations to require green completions on all gas wells.

In 2014, we increased our use of dual-fuel rigs – those that can run on natural gas or diesel. The option to run on natural gas is beneficial because natural gas emits less CO_2 than diesel when burned. Our seven new dual-fuel rigs are now deployed in the Fayetteville Shale and the Marcellus Shale.

Also in 2014, we installed air compressors at several of our Pennsylvania Midstream compressor stations where electric power was available. The air compressors provide air to replace natural gas for pneumatic devices and engine startups.

In addition, we engaged in a fuel cell field trial at a well pad in Arkansas. The fuel cell provided electric power for instrumentation as well as an air compressor, which replaced the use of natural gas with air for pneumatic devices.

Finally, we participate in the EPA's Natural Gas STAR Program, which encourages companies to voluntarily recover or reduce methane emissions. Our cumulative reported reductions since engaging in the program in 2006 are more than 38.8 Bcf.[39]

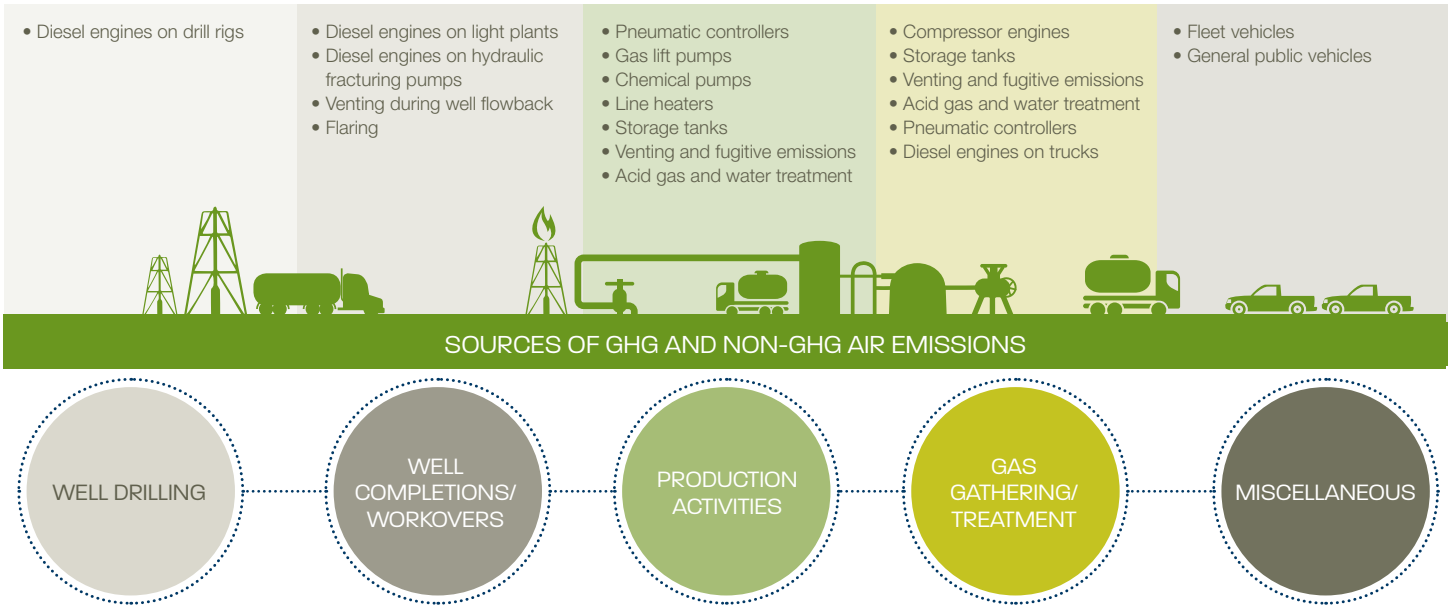
21% reduction in greenhouse gas emissions intensity from 2012 to 2014

Doug Arent
Executive Director, Joint Institute for Strategic Energy Analysis, National Renewable Energy Laboratory

"I worked with SWN on a series of workshops – including one involving the White House – about how the renewable energy and natural gas industries can work together as part of a transition to a more-secure, lower-carbon energy future. SWN has been outspoken in terms of leading the industry to take proactive steps to reduce methane emissions and other environmental impacts.

39 Our Natural Gas STAR results can be viewed at www.swn.com/responsibility/documents/SWN_2013_Summary_Report.pdf.

The graphic below illustrates additional ways we have reduced our emissions in recent years.



Mark Brownstein
Associate Vice President and Chief Counsel,
U.S. Climate and Energy Program, Environmental Defense Fund

"Right now, some in the environmental community take a dim view of the natural gas industry. There are real doubts about the industry's ability to produce gas efficiently and safely, and there is good reason for that. The true measure of success is how do you perform in the field – do you do the right thing all the time? It's a very high bar. The great thing about SWN is that when an environmental issue crops up, they get busy figuring out how to solve it. They don't waste time arguing about it.

It was a pioneering spirit of innovation that led to shale gas development in the first place, and SWN applies that same spirit to environmental challenges. They are doing that now with efforts to reduce methane emissions. Because they know, as we do, that natural gas will only be seen as a cleaner, lower-carbon fuel if the industry does all it can to minimize methane emissions throughout the value chain.

Air Data[40]

	2012	2013	2014
ABSOLUTE GHG EMISSIONS			
Drilling/Completion/Production (thousand metric tons CO_2e)	993	1,091	1,286
Midstream Services (thousand metric tons CO_2e)	1,845	1,852	1,918
GHG EMISSIONS INTENSITY[41]			
Overall Emissions Intensity (kg CO_2e/MMBtu gas produced)	3.45	3.18	2.73
Production-Only Emissions Intensity (kg CO_2e/MMBtu gas produced)	1.27	1.18	1.06
METHANE LEAK/LOSS (PRODUCTION OPERATIONS ONLY)			
Methane Emitted (gigagrams)[42]	33.09	31.12	36.78
Methane Leak/Loss Rate[43] (%)	0.21	0.18	0.16

Promoting the Use of Compressed Natural Gas

The natural gas SWN produces not only helps to heat homes and power businesses, it is being used to fuel cars and trucks. Compressed natural gas (CNG) has become a desirable alternative fuel for fleet vehicles, municipal transportation and some private vehicles due to its many environmental and economic benefits, including 25 percent fewer CO_2 emissions than gasoline- or diesel-powered vehicles.

SWN has opened two public CNG fueling stations in Arkansas. These stations dispense CNG that comes directly from the Fayetteville Shale, and they serve as fueling sites for the company's own CNG-powered fleet, which now includes more than 180 vehicles. Our commitment to CNG can also be seen in our financial support of two city-owned CNG fueling stations in Arkansas. In addition, we encouraged 100 employees to convert to CNG by reimbursing the costs of personal vehicle conversions and home refueling units.

LAND

The need to protect land-based resources is fundamental for SWN, because in most cases we don't own the land on which we work; we operate under leases from private citizens or government agencies, and we want to maintain goodwill with those owners. We therefore seek to minimize site impacts, including preventing erosion and spills, minimizing waste and protecting biodiversity. Where applicable we monitor the issue of induced seismicity, and we actively pursue green building technologies.

Site Impacts

When we drill a new well, we create a multi-acre gravel well pad with enough room to place the drilling rig and ancillary equipment. After the completion of the final well on that pad, we shrink the size of the pad by 30 to 50 percent and restore the area we no longer need to pre-project condition. We have developed best practices to guide the development of our well pad sites and ensure we comply with applicable local, state and federal regulations.

We minimize our overall footprint by drilling multiple wells on a single pad (up to 10 per pad), where technically feasible. Multi-well drilling makes sense for unconventional wells that reach out horizontally in different directions. In fact, because of multi-well drill pads, we need less land for unconventional wells than we did for traditional vertical well pads in a full-development scenario.

When the time comes to close the final well on a well pad, we restore the location to its original condition unless the landowner requests that we leave the pad in place. To date in Arkansas we have reclaimed 28 pads and released 38 back to landowners. Because most of our wells in Arkansas and northeast Pennsylvania are expected to produce for decades to come, our well closures at present are mostly conventional oil and gas wells that have ceased producing and exploratory wells that prove unsuccessful.

40 The emissions intensity and leak/loss rate data are based on gross operated production. The GHG calculations – reported in carbon dioxide equivalents, or CO_2e – include CO_2, CH_4 (methane) and N_2O (nitrous oxide). Certain GHG emissions are based on EPA emissions factors. In 2013, the EPA increased the global warming potential for methane from 21 to 25. Thus, for 2013 and 2014 the CO_2 equivalent emissions due to the methane fraction are higher than in 2012. The Production CO_2e emissions reflect emissions reported to the EPA under Subpart W of the Greenhouse Gas Mandatory Reporting Rule (GHGMRR). Approximately 99 percent of our production operations are subject to reporting under Subpart W. The Midstream CO_2e emissions data are comprehensive for combustion sources. They include emissions from all of SWN's Midstream operations, including those reported to the EPA under Subpart C of the GHGMRR, as well as those not meeting threshold levels and thus not reported to the EPA.

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

42 For 2012 and 2013, the gigagrams of methane are the total reported methane emissions under EPA GHGMRR Subpart W. For 2014, the gigagrams of methane reflect the Subpart W reported emissions revised (reduced) to reflect actual fugitive equipment leaks observed as a result of our leak detection and repair program. A gigagram is equivalent to a thousand metric tons.

43 The methane leak/loss rate (percentage) is calculated by dividing the gigagrams of methane emissions (converted to cubic feet) by the oil and gas gross production reported in cubic feet equivalents.

Minimizing Erosion

We minimize erosion, to protect not only the soil but also the quality of nearby surface waters. In 2013, together with TNC, we developed the Streamsmart™ training program to address this issue more thoroughly.

Streamsmart

Streamsmart is a half-day workshop that trains SWN employees and contractors in practices for effective erosion and sedimentation control. The workshop is delivered jointly by representatives of SWN and TNC. We also invite representatives from regulatory agencies to participate and present their own learning modules. The Streamsmart program educates participants about:

- The importance of water resources for human communities and natural ecosystems
- The threat posed to stream biodiversity, and to economic activities such as fishing and other recreation, by erosion and sedimentation
- The factors that contribute to erosion
- Best practices for preventing erosion

By year-end 2014, more than 400 SWN employees had been trained in the Streamsmart program. Staff from peer companies, consulting firms, contractors and regulatory agencies have also attended.

Preventing Spills

Our goal regarding spills is simple: We don't want any to occur. In the unlikely event we do have a significant spill on land or water, we have a comprehensive spill response plan in place. Also, we perform regular spill response drills.

We use catch basins under drilling rigs to catch any fluid that may fall. We also line the entire base area around the rig with a heavy polyethylene liner. We employ shutoff valves on rigs themselves, enabling us to immediately stop any leak or rupture.

We keep internal records of every spill below reportable size – even if it is just fresh water that is spilled – and we keep records of near misses, so that we can learn from those events and put preventative measures in place as needed.

We did not have any significant spills – i.e., those that are required to be reported under U.S. Securities and Exchange Commission rules governing our annual and quarterly reporting – in 2014, nor have we had any in the last decade. Our annual spills data are below.

Tier 1 Unplanned Discharges (Spills)
(volumes in barrels)[44]

2012	2013	2014
2,368	152	192

Handling Waste Responsibly

Our wells create minimal solid waste during the long production phase. The major source of waste in our operations occurs during the short drilling phase, when a mixture of rock cuttings (i.e., rock chipped away by the drill bit) and oil-based drilling mud comes up out of a well as it is being drilled.

We operate a closed-loop system for managing used drilling mud, which means we catch all the cuttings and associated drilling fluids in containers before they are transported to a processing facility. We go through several steps to separate the drilling mud from the cuttings so we can reuse it. After separation, the liquid mud is reused for drilling and the solids are removed from the well pad site in covered, lined transport trucks. This material is further processed to remove as much of any still-attached mud as possible, and the processed material is then disposed of in landfills. We take special steps to ensure that each disposal facility is approved for our type of waste and operates to our high standards. The approval process includes a rigorous audit program performed by our HSE team along with periodic follow-up audits.

In the Appalachian Basin, naturally occurring radioactive materials (NORM) can occur in very small concentrations in some rock formations. In our operations, NORM has occasionally been found in scale and sludge as barium sulfate, deposited in production tubulars and surface equipment, as well as in gas form. In line with our NORM management program – which specifies procedures for detecting, managing and disposing of NORM-affected materials – all remediation or decommissioning of detected NORM waste is conducted by a third-party company specifically licensed for that purpose. We did not generate any NORM waste in 2014.

44 Tier 1 spills are those of a reportable quantity impacting waters of the state or U.S., or requiring federal or state agency notification.

Preventing Induced Seismicity

The injection of wastewater into deep underground wells has on occasion caused seismic activity felt at the Earth's surface. This is known as induced seismicity. A 2012 study noted that while the oil and gas industry uses approximately 150,000 deep injection wells in the United States, induced seismicity has been documented in fewer than 40 instances over the past 50 years.[45] All of the instances occur in areas where the geological conditions are conducive for preexisting faults to slip. The potential for induced seismicity – however small – is one reason we now seek to recycle our flowback and produced water, such that we dispose of less than 1 percent of it in deep injection wells. We have developed protocols for determining where such seismicity might be possible, e.g., through studying background seismicity, geological formations and faulting. We also participate in industry committees sponsored by America's Natural Gas Alliance, the American Petroleum Institute and the American Exploration & Production Council.

Protecting Biodiversity

By reducing site impacts, we minimize effects on plants and animals in our areas of operation. In the Sand Wash Basin in western Colorado, where we purchased assets in 2014, the greater sage-grouse is considered to be under threat due to habitat loss from human development. In September 2015, the FWS announced that protection of the greater sage-grouse under the Endangered Species Act was not warranted. However, U.S. Bureau of Land Management regional management plans will still apply on federal lands, as will state conservation programs and initiatives.

About half of our leases in Colorado are in greater sage-grouse habitat. To help address the issues facing the greater sage-grouse, we joined the Colorado Habitat Exchange program, a consortium of representatives from the oil and gas industry, agriculture, environmental groups and the state of Colorado working to develop market-based strategies to protect the bird. The group is actively seeking ways to promote the health of sage-grouse populations while allowing for oil and gas development, agriculture and other industry activities.

We face a similar issue in our newly purchased West Virginia operating area (as well as some of our other areas) in that it coincides with habitat for the northern long-eared bat, which in early 2015 was listed by the FWS as threatened. We have joined with our industry peers to develop a habitat conservation plan for this species.

Our Office Buildings

The environmental impacts of our administrative operations are very small compared to those of our exploration, drilling, completion, production and midstream operations. Nonetheless, we have been working for several years to reduce the environmental footprint of our office buildings in Texas, Arkansas and Pennsylvania.

In late 2014, we moved our headquarters staff to a new, 550,000-square-foot building in Spring, Texas (just north of Houston), built to LEED Gold specifications.[46] We received LEED certification in August 2015. The building features a variety of LEED elements, such as natural daylighting to minimize the use of electricity, occupancy sensors that turn off lights automatically when rooms are not in use, landscaping with native plants and a pond system for capturing rainwater for use in irrigation. A natural-gas-fueled generator provides 24-hour power for the data center. Overall, the building uses 25 to 30 percent less energy than a standard building of its size.

Our Arkansas staff operates out of a LEED Gold certified building in Conway, Arkansas, that was purpose-built for us. And in our field locations, we have been using the LEED-EB standard (i.e., LEED for existing buildings) as a guide when we upgrade or renovate existing facilities.

Rives Taylor
Principal and Co-Director for Design Performance, Gensler

"I was involved in the planning and design of SWN's new headquarters in Spring, Texas. At Gensler, we believe there are 10 key elements that help create a high-performance workplace. They include, for example, multiple open areas for collaboration among employees and strong visual connections to the natural world outside. SWN's new headquarters has all 10 of those key elements. You can't bolt those things on after the fact; they have to be incorporated into the design. From the outset, SWN's executive leadership was very supportive of these elements and of the many sustainability aspects of the new building.

45 www.api.org/~/media/Files/Policy/Hydraulic_Fracturing/UIC-and-Induced-Seismicity-Final-for-States.pdf

46 LEED stands for Leadership in Energy & Environmental Design and is the premier "green" building standards system.

COMMUNITIES

The communities where we work are the communities where we live. Our goal is to be a valued part of each community in which we operate by conducting our activities responsibly and to high standards. Our history of creating Value+ demonstrates how the impacts related to oil and gas operations can be a net positive for the communities affected. This section describes how we engage with communities to boost local economies, manage issues related to our operations and build strong relationships with community leaders and local citizens.

Engagement
Being a good neighbor is part of how we do business. We make it a habit to listen to and engage local communities so we can better understand, anticipate and respond to local concerns.

Economic Benefits
Our presence supports the local economies where we operate through new job creation, royalty payments, income tax revenue and fees to help improve roads. SWN recently surpassed $1 billion in cumulative royalty payments in the Fayetteville Shale area.

Giving and Volunteering
In 2014, SWN donated $3.35 million to support educational and nonprofit organizations, and our employees contributed 7,800 volunteer hours, including thousands of hours to help with tornado recovery efforts in Arkansas.

PROACTIVE COMMUNITY ENGAGEMENT

Every community where we work is unique, and we have found that a tailored approach to community engagement works best for local residents and our company.

We cultivate proactive community engagement throughout the lifecycle of our operations. In our more mature operating areas, such as those in Arkansas and northeast Pennsylvania, we are engaged in bolstering local nonprofits and addressing any specific community concerns related to our ongoing operations. In other areas, we're either still in the exploration phase or have recently purchased existing assets. In both cases we are developing relationships and identifying issues of particular interest. In Colorado, for instance, we are helping the community understand our company and our expected future operations and engaging with local groups on specific issues, such as mitigating the impact of our industry on local wildlife. In West Virginia, we are identifying specific community issues and helping residents learn about our company and its culture.

We invite community members to contact us directly, and we reach out to develop cooperative, two-way dialogue with local officials, community members, businesses and local organizations, emergency responders and land and mineral owners. This helps us address the needs of local communities and allows those communities to better understand our operations and our industry. Depending on the specific concerns of the community, we address issues ranging from the benefits of our presence (such as job growth, tax revenue and royalty payments) to environmental considerations to operational specifics (such as the types of equipment and trucks people will see during different phases of our activities).

In addition to listening to and engaging with others, we take action to anticipate and respond to concerns before they become major issues. We empower our employees to make decisions at the local level so that community interests can be addressed quickly and directly by people who understand the situation on the ground and have personal relationships with those affected.

Judge Roger Hooper
Van Buren County, Arkansas[47]

"I began having regular communications with SWN right after I became Judge in 2010. When I was running for election, people said one of the toughest issues I'd have would be dealing with the gas companies. But in fact, it's turned into one of the most positive relationships I have. We have a much improving community relationship with SWN compared to five or six years ago. SWN has done things to build that relationship through trust.

I have conversations a couple of times a week with SWN. They tell me about things they think the county needs to know about, and I tell them about issues I think they need to know about. When we have concerns, we call each other and try to resolve it; 99 times out of 100, we succeed in doing that. I know who to go to in their company, and vice versa. That's invaluable. It saves time and a lot of wasted effort.

IMPACTS ON COMMUNITIES

For issues ranging from road safety and noise control to environmental stewardship and engagement with indigenous populations, we conduct ourselves as good neighbors, developing solutions that benefit both SWN and local communities.

Road Use

Safe, well-maintained roads are critical to those who live in the communities where we operate and are essential to our business. The effects of our and other operators' road use and the driving behaviors of employees and contracted vendors are highly visible examples of the industry's operational impact on communities. We have programs to promote safe driving practices, control traffic and dust, and maintain the conditions of the roads we use.

Safe Driving Practices

Roadway safety is a top priority for SWN. We have developed in-person and online training programs for our employees and contractors to educate them about and promote cautious driving. In addition to training, we foster a safe roadway culture in the following ways:

Driver compensation: We pay transportation contractors by the hour rather than by the delivery load as much as possible. This practice allows drivers to focus on safe driving rather than on the number of loads they can transport in a day.

Safety communications: Through an online newsletter, face-to-face meetings and contractor forums, we regularly communicate essential safety and driving messages.

Community driver training: We partner with the National Safety Council/Safety Council of the Ozarks to implement the Alive at 25 Training program in Arkansas and Texas. Through this program, SWN covers the cost of training employees' children and local high school students (ages 15–24) in defensive driving. We plan to expand this program to Pennsylvania and West Virginia in 2015.

Monitoring: We installed a monitoring system in company vehicles to track and improve driver performance.

47 In Arkansas, the County Judge is the top elected executive official and not a part of the judiciary system.

Traffic

We use several approaches to reduce the number of our trucks on local roadways, including the following:

Multiple-well drilling pads: Our drilling technology allows us to drill up to 10 wells on one pad – sliding the rig to a new location on the well pad without using roads to relocate it. With each new well we drill using this technique we eliminate the need for 650 truckloads of equipment and construction materials.

Pipeline systems for water transportation: In northeast Pennsylvania, we developed an underground water pipeline system that allows efficient transport of almost 100 percent of our water in that operating area, eliminating 200 to 250 truckloads and reducing truck traffic by approximately 50 percent per well. In Arkansas, we transport nearly all of the fresh water we use via a ground-surface pipeline system, which eliminates approximately 1,000 truckloads per well.

Centralized logistics operations centers: Our centralized operations center in Arkansas maintains frequent communication with our commercial carriers in both Arkansas and northeast Pennsylvania. The center reduces truck traffic and congestion by consolidating trips and optimizing routes. In addition, the logistics center reduces wear and tear to roadways by maximizing loads to minimize mileage and avoiding roads and bridges that are not equipped to handle heavy-duty trucks. This logistics center has reduced our operational truckloads by an estimated 1,339 trips, which has eliminated 70,000 miles traveled because of better planning and routing.

Dust

Large trucks traveling on secondary roads, which are usually made of gravel or dirt, create more dust than typical car and small-truck traffic. We staff a 24-hour call center to address dust-related concerns, and we encourage all residents and SWN contractor representatives to identify and report areas in need of dust control. SWN uses several methods to control dust, some of which can last several months during high-volume activity.

Maintenance

In some of the communities where we operate, the roadways were designed to accommodate traffic only from personal vehicles and farm-to-market trucks; these roads require continued maintenance when traversed by the heavy-duty vehicles used to support our operations. Each year, SWN and the natural gas industry pay millions of dollars in state taxes and maintenance fees, which are often used to restore and maintain highways and secondary roads.

In Arkansas, SWN pays a severance tax for the production of natural gas resources, which totaled $44 million in 2014. Most of the revenue from this tax is dedicated to state highway and county roadway projects. We also pay a maintenance fee to the Arkansas Highway and Transportation Department to use weight-restricted roads to access wells. That fee is approximately $38,500 for the first well we drill per pad and more than $20,000 for each additional well. In 2014, we contributed approximately $1.2 million in maintenance fees.

In Pennsylvania, we pay impact fees for our unconventional gas wells. The money collected from these fees is used for community projects, including the construction and maintenance of roadways and bridges; water and sewer infrastructure; emergency preparedness and public safety; affordable housing projects; and tax reductions. In 2014, we paid $13 million in impact fees in Pennsylvania.

In addition to the impact fees we pay in Pennsylvania, SWN funded $8.1 million in 2014 to repair or reconstruct approximately 25 miles of roadway in that state. To guarantee these road repairs take place, natural gas operators in the state are responsible for posting a bond for use of weight-restricted state roads.

Compressor Noise

Noise is an issue of ongoing concern for many residents. Natural gas compressors increase the pressure of the gas, allowing it to be transported through pipelines and delivered to consumers for use. We currently operate nearly 800 compressors, which include temporary units on well pads.

We have compressor stations in several states, including Arkansas and Pennsylvania. Arkansas has statewide noise limits that apply to our operations. For other states, noise may be regulated at the county or municipal level. Our new facilities are designed to meet any applicable noise limits – usually by a comfortable margin. In addition, we take steps to address noise concerns raised by local communities, even when not required by regulation.

We use a variety of methods to control the sound levels of our compressors used by our Midstream operations. First, to the extent permitted by system pressure requirements and available locations, we site compressor stations away from residences and other occupied areas. We also will not place compressors in certain terrains and cultural features such as parks, historic sites and wetlands. In addition, we regularly use special or nonstandard compressor exhaust systems with extra sound-reduction capabilities. Where necessary, we use high-efficiency coolers with fans that run at slower speeds to reduce noise, and install larger piping than is typically used in compressor stations to keep gas velocity low, reducing high-pitched sounds. Finally, we construct buildings around compressor equipment or install sound walls on one or more sides of compressor equipment to reduce sound levels, if additional steps are needed.

Indigenous Populations

In 2010, SWN was awarded licenses to explore in the Canadian province of New Brunswick, a region that currently has 15 First Nation communities, representing two distinct nations. We view First Nation communities as potential long-term partners, and we pursue the creation of mutually beneficial relationships through honest, respectful and ongoing consultations and collaborations. The primary concerns we work with these communities to address include the potential for water contamination and other environmental impacts. To date, we have only conducted preparatory work, such as aerial overviews and seismic sounding, but even these have generated some protests.

As with our other operating areas, we hire locally as much as possible. In 2014, a team comprised exclusively of First Nation members completed investigative field work near our proposed exploratory drilling locations to identify any effects our drilling plans may have on aboriginal rights, including any impact on traditional medicines, treaty rights or traditional use of lands. If we move forward into more extensive Canadian operations – the province currently has a moratorium on hydraulic fracturing – we will maintain a hiring policy that supports a strong representation of First Nations within our workforce and due diligence that focuses on First Nation concerns.

ECONOMIC BENEFITS

When SWN establishes operations in a new region, it creates both direct and indirect economic benefits for the entire community.

The Center for Business and Economic Research at the University of Arkansas completed a study in 2012 on the economic impact of oil and gas industry activities in the Fayetteville Shale region from 2008 to 2011 and the economic impact projections for 2012. The researchers concluded that the industry created positive economic impacts for the region through job growth, higher-than-average wages, mineral leases and royalty payments, higher taxable sales, increased property values and new business growth.[48]

> From 2008 to 2011, total economic activity of more than $18.5 billion was generated as a result of Fayetteville Shale activities in the state
>
> Report published by the Center for Business and Economic Research at the University of Arkansas

In northeast Pennsylvania, oil and gas production will bring a projected $16.8 billion in gross domestic product to the state in 2015 and $42.4 billion in 2035. Reports also show that, to date, the oil and gas industry in Pennsylvania has contributed more than $2 billion in corporate and personal income tax revenue. From 2012 through 2014, the state's natural gas industry paid more than $630 million in impact fees and invested more than $1 billion to improve roads.[49]

As for employment, a Marcellus Shale Coalition study found that 83 percent of new industry hires in the region were from Marcellus Shale states in 2013.[50] The natural gas industry and related industries supported approximately 89,000 jobs in Pennsylvania as of September 2014.[51] As of November 2014, SWN employed approximately 160 people in northeast Pennsylvania.

Developing a Local Workforce

Hiring locally for our operations provides a boost to the job market and ensures that our regional employees have a local perspective on community needs and concerns. To expand the pool of qualified candidates for our operations in Arkansas and northeast Pennsylvania, we have developed and supported programs that generate interest in the oil and gas industry and provide educational opportunities for those pursuing a career in the industry.

For example, we worked with the University of Arkansas Community College at Morrilton (UACCM) and invested $200,000 in 2006 to establish the first two-year petroleum technology program in the state. We followed that in 2010 with an additional $50,000 commitment over five years to cover operating expenses and establish a multimedia health, safety and environment training center for the program. UACCM began offering an Associate of Applied Science degree in Petroleum Technology in the fall of 2006, and it remains one of only a handful of schools nationwide offering this type of program. By year-end 2014, the program had awarded 418 Certificates of Proficiency, 346 Technical Certificates and 289 Associate degrees.

48 http://cber.uark.edu/files/Executive_Summary_Revisiting_the_Economic_Impact_of_the_Fayetteville_Shale.pdf

49 Sources: IHS (a global data and analysis provider), the Marcellus Shale Coalition, the Pennsylvania Department of Revenue and the Pennsylvania Public Utility Commission.

50 http://marcelluscoalition.org/2014/07/msc-issues-annual-workforce-survey-results/. The Marcellus Shale states include Pennsylvania, Ohio, West Virginia, New York and Maryland.

51 www.portal.state.pa.us/portal/server.pt?open=514&objID=1222103&mode=2

SWN also worked with others in the oil and gas industry to start the Fayetteville Shale Scholarship Fund, which provides scholarships for students in the UACCM program. The Fund has provided 500 scholarships totaling $335,500 since it launched in 2006.

In Pennsylvania, we help to support Lackawanna College's School of Petroleum and Natural Gas, which offers a two-year training program for students pursuing careers as compressor mechanics or well pumpers. SWN provides summer internships for students in the program and, in 2014, we announced the donation of a functioning dehydration unit to the program so students can practice using a working piece of equipment. We also established a scholarship fund in 2014 for students who graduate from high schools within our operating area and are entering the Lackawanna College program. The first scholarship was awarded for the 2014/15 academic year; going forward, we plan to award two $10,000 scholarships each year.

As we have entered into a new operating area in West Virginia, we are engaging with the community and supporting educational programs to develop the local workforce in that region.

Royalties

The individuals who own the minerals receive a direct financial benefit from SWN in the form of royalty payments for the production and sale of their gas. Mineral owners receive a bonus when they execute a lease (usually calculated on a per-acre basis). SWN recently surpassed $1 billion in cumulative royalty payments in the Fayetteville Shale area alone.

$1+ billion
cumulative royalty payments in the Fayetteville Shale area of Arkansas

CHARITABLE CONTRIBUTIONS AND VOLUNTEERING

Making a positive impact on the communities where we work has always been an important part of our culture. We concentrate our giving and volunteer efforts on specific, local needs in the communities where we operate. Our primary focus areas are education, community vitality, environment, health and nutrition and emergency response. We also have a history of quickly mobilizing our resources to aid local communities following natural disasters.

Charitable Giving (U.S. dollars)

2012	2013	2014
$2,020,000	$1,800,000	$3,350,000

Education

We believe in the transformative power of education, and we work with a number of organizations[52] to enhance schools and provide greater opportunities for students.

- **Science and engineering fairs:** SWN sponsors the Southwestern Energy Arkansas Science and Engineering Fair, which draws more than 200 students each year. Since 2010, we have pledged $250,000 through 2019. We also supported two science fairs in New Brunswick, Canada, and have donated $56,000 for the fairs and associated science, technology, engineering and math (STEM) programs for children in that region.
- **Junior Achievement (JA):** Since 2007, 85 SWN employees have served as classroom volunteers, providing more than 3,500 hours of instruction to nearly 8,000 students in north-central Arkansas. We've pledged to donate more than $500,000 between 2007 and 2016 to help fund JA classroom activities in that region. In the Houston area, we contribute volunteer time to the program, hosting "JA in a Day" programs at a local elementary school, and we support JA in northeast Pennsylvania by participating in its Careers in Energy Program in local school districts and sponsoring a variety of community events and programs.
- **School grants program:** The SWN grants program, introduced in 2008, provides equipment and assistance for programs that support science, math and technology at schools in the Arkansas communities where we operate. Between 2008 and 2014, we contributed $332,000 through this program.

Community Vitality

We partner with the United Way in Wyoming County, Pennsylvania, to support a variety of local organizations. In 2012, one of our employees had an idea to start a golf tournament with participants from SWN and other natural gas companies to benefit the Wyoming County United Way. That idea grew into the Marcellus Open, and each year the event has proven to be more successful than the last. As of 2014, the tournament had raised more than $230,000 for the United Way.

52 www.swn.com/responsibility/Pages/education.aspx

In addition, SWN hosted sporting clay tournaments in Pennsylvania in 2013 and 2014, which raised a combined $90,000. The proceeds benefit the Wyoming County United Way, and in 2013 we also used a portion of the funds to support 21 volunteer fire companies that provide services to residents in SWN operating areas.

Environment

Over the past five years, we have contributed approximately $2.5 million and 260 volunteer hours to support environmental programs that protect and restore waterways and wildlife habitats.

Health and Nutrition

For the past three years, we have supported local food banks – both financially and through employee volunteers – in Houston, Texas, and the surrounding area. In 2013, when we broke ground on our new headquarters just north of Houston, we renewed our commitment to the local community with a donation of $150,000 to the Montgomery County Food Bank. Overall we have pledged a total of $186,000 and donated more than 1,200 volunteer hours to food banks in Texas over the past five years.

We also support a variety of health runs/walks and bike rides in the Houston area, such as the March of Dimes' March for Babies, the MS 150, and the Leukemia & Lymphoma Society's Light the Night in Houston.

In Pennsylvania, SWN partners with Hunters Sharing the Harvest – an organization that coordinates with hunters, butchers and food banks to distribute venison to hungry families in the area. Support from SWN and the natural gas industry helps cover the processing fees for the deer. An average-size deer can provide enough meat for about 200 meals, and SWN's contributions have helped the organization process about 100 deer – enough for approximately 20,000 meals.

John Plowman
Executive Director,
Hunters Sharing the Harvest

"Support from companies like SWN plays a crucial part in helping us get food to families in need. We used to have to charge hunters a fee when they dropped a deer off at the butcher. But now, thanks to donations from SWN and other companies in the area, we're able to cover that charge, which encourages more donations and helps local food banks feed more families.

Emergency Response

In 2008, SWN created the Everyday Heroes program[53] to support local public safety organizations in the Arkansas counties of Cleburne, Conway, Faulkner, Pope, Van Buren and White. In 2014, we expanded the program to Bradford and Susquehanna counties in Pennsylvania. Since 2008, we have distributed more than $600,000 to emergency response organizations through Everyday Heroes.

Employee Giving and Volunteering

SWN recognizes the vital role that nonprofit organizations play in our communities, and our employees care passionately about supporting causes important to them. Our Social Energy program rewards that passion by providing additional funds to nonprofits based on our employees' giving and volunteer efforts.

SWN matches employee donations to qualified nonprofits dollar for dollar, up to $15,000 per employee per year. Since 2011, we have contributed nearly $617,000 in matching funds to educational and nonprofit organizations.

SWN Matching Gifts (U.S. dollars)

2012	2013	2014
$83,600	$102,500	$317,900

In 2014, our employees recorded 7,800 hours of volunteer service in their communities, including thousands of hours to help with recovery efforts related to tornadoes in Arkansas (see below). Our SWN Community Heroes program[54] rewards and encourages volunteering by recognizing up to 10 employees each year for their outstanding volunteer achievements. Through this program, we grant $2,000 awards to each of the organizations at which the winning volunteers have focused their time. Since the program launched in 2010 through the end of 2014, we have donated $100,000 to nonprofit organizations on behalf of our employees in the communities where they live and work.

Disaster Relief

When a disaster hits one of the communities in which we operate, we help our neighbors recover through financial donations and employee volunteers. In recent years, we've provided labor and funding toward cleanup efforts following tornadoes in Arkansas and flooding in Pennsylvania, and we provided water to fight fires in Arkansas.

In April 2014, we helped with the recovery efforts from two tornadoes in Faulkner County, Arkansas. SWN employees volunteered nearly 5,300 hours to cleanup efforts. We also donated $50,000 to the American Red Cross for storm recovery.

53 www.swn.com/responsibility/Pages/publicsafety.aspx

54 www.swn.com/responsibility/Pages/communityheroes.aspx

WORKFORCE

At SWN, a key aspect of our company Formula is the Right People doing the Right Things™. This demonstrates how important our people are to helping SWN deliver Value+. We believe that providing our employees with competitive pay and benefits and a safe, rewarding work environment is one of those Right Things to do.

Supporting Employees

To attract and retain the Right People, we offer competitive pay and benefits, including high-quality health insurance options, paid leave plans, flexible work hours, an employee assistance program, employee training and development programs, scholarships for dependents and matching higher-education contributions.

Local Hiring

We hire locally as much as possible, and we back up this commitment by working to develop a pipeline of local talent in all of our operating regions. We also support and hire local contractors as much as possible.

Managing Contractors

We have rigorous processes in place to select, manage, train and evaluate contractors, and we hold them to the same standards we hold ourselves. For example, we require all of our contractors to participate in our Training Assurance Program, which communicates SWN's key performance expectations.

EMPLOYEES

Our company has grown rapidly – from approximately 1,700 employees to more than 2,700 over the past six years. We create a rewarding work environment for all of these employees, with a focus on talent attraction and retention; diversity; employee engagement; and training and development.

Talent Attraction and Retention

When we began our rapid expansion in Arkansas several years ago and more recently in Pennsylvania, each region lacked a skilled oil and gas workforce able to take advantage of the hundreds of new, well-paying, long-term jobs we were creating. Over the years we have developed a pipeline of local talent and have transitioned to a largely local workforce in those regions. We are following the same approach to local hiring in West Virginia. While we are early in the process of developing local talent in that region, we are starting operations with a core staff of experienced personnel who have been employed by the prior operator.

To attract and retain the Right People, we offer competitive pay and benefits, including high-quality health insurance options and paid leave plans. These benefits are offered to all full-time employees throughout the company.[55] In addition, we offer flexible work hours, an employee assistance program, scholarships for dependents and matching higher-education contributions.

SWN a Top Workplace

In 2010, SWN employees began participating in the *Houston Chronicle's* Top Workplaces Survey. We have been listed as one of Houston's best places to work every year since and, from 2013 to 2014, our ranking jumped from the 25th best employer in Houston to the 11th.

We are committed to understanding the needs of our employees and making SWN a rewarding environment for everyone who works here. As a result of that diligence, we have reduced attrition rates in some of our most critical technical disciplines, and reduced first-year turnover.

Emergency Relief Fund

The Southwestern Energy Employee Emergency Relief Fund (SEERF) is organized and operated exclusively to relieve financial hardships and assist SWN employees and retirees who are victims of natural or civil disasters or who suffer a severe financial hardship due to illness, death, accident, crime or similar circumstances. The SEERF may be funded by employees, the company or outside donations. This fund exemplifies the kind of work environment we seek to create at SWN – a place where colleagues and the company support one another on and off the job.

Diversity

It is SWN's policy to provide equal opportunity employment to all individuals regardless of race, color, ethnicity, religion, national origin, citizenship, sex, age, disability, present military status or veteran status, genetic information or any other characteristic protected by federal, state or local law. In addition, we seek to strengthen our company by hiring people with a variety of experiences, practices and schools of thought.

We are working to create more gender balance in our workforce. For example, our SWomeN initiatives are a concerted effort to retain and develop SWN's female talent. As part of this program, women at SWN have built an internal support network and participate in professional development activities such as external conferences. In addition to these internal efforts, SWN is a proud corporate sponsor of the Women's Energy Network (WEN) and boasts more than 100 members in the Houston chapter.

Employees by Gender[56]

	2012	2013	2014
Total Number of Employees	2,427	2,621	2,781
Male Employees	1,908	2,073	2,209
Female Employees	519	548	572

In 2014 and 2015, we built relationships with key diversity organizations and attended relevant career fairs as part of our efforts to attract diverse candidates for open jobs. The organizations included the Society of Black Engineers, the National Association of Black Accountants, the Association of Latino Professionals in Finance and Accounting, the Society of Hispanic Professional Engineers, and the Hispanic Alliance for Career Enhancement.

Employee Engagement

We engage our employees through "town hall"-style meetings, employee newsletters, the company intranet and regular surveys of employees, among other methods. We use performance management and employee development programs to provide feedback to employees on how they are doing and to make sure employees understand how they are contributing to the company's success. The program encourages leaders and their staffs to set goals and priorities and monitor progress and achievement on a frequent, ongoing basis. Also, in addition to the SWomeN group mentioned previously, we sponsor a young professionals group made up of individuals early in their careers.

63% growth in the number of employees over the past six years

55 Part-time employees must work 30 hours or more each week to qualify for benefits.

56 All data are as of year's end. Temporary, part-time and seasonal employees accounted for less than 1 percent of our workforce during these years. Part-time is defined as less than 30 hours per week.

Training and Development

We demonstrate our commitment to continuous employee development through training programs and tuition reimbursement for job-related courses, as well as company-paid professional memberships and subscriptions, including the following:

- **Career development:** To assist our employees with their growth, we offer a range of training opportunities for all of our employees. For managers, we offer executive and leadership development programs as well as one-day, in-house trainings that address timely topics.
- **Educational assistance:** We offer a reimbursement program for employees who take courses at accredited colleges or universities, to encourage their professional growth and development.
- **R²:** Named for one of SWN's fundamental values (the Right People doing the Right Things™), R² is a full-day training program that gives employees a comprehensive look at who we are as a company, how we got where we are today and where we are heading in the future. All of our employees go through this training.
- **Safety training:** We require safety training for employees and contractors, as discussed on pp. 18 to 20.

To support our talent management and career development efforts, in 2014 we implemented a new technology that ties our talent management, recruiting and core human resources services systems into an integrated system that is easier for our employees to use and helps us track critical talent data more effectively.

CONTRACTORS

In our industry, contracting with specialized companies to provide specific services is standard practice. The employees of those companies carry out operations at our sites, working side by side with our own employees.

Contractor performance directly impacts our financial, social and environmental performance and our reputation. As a result, we have processes in place to select, ensure the training of and evaluate contractors, and we hold them to the same standards we hold ourselves. SWN employees from our Operations, Supply Chain and HSE teams are involved in qualifying, managing and assessing our contractors.

Extending the SWN Culture

We developed the TEAMWorks training program to share SWN's unique culture with contractors and employees, with a particular focus on health, safety and environment topics. We also communicate SWN's expectations and culture to our contractors through TAP.

We hold contractor forums in each of our operating areas each year. For these forums, we work with our local field operations managers to develop region-specific, custom workshops for contractors that cover SWN's expectations; resources for vendors; important health, safety and environment issues; and ideas on how we can work together as one team for continuous improvement.

Helping Military Veterans Transition to the Civilian Workforce

In 2014, we developed a new job training and apprenticeship program to help military veterans build the skills they need to work at SWN and transition successfully to the civilian workforce. The centerpiece of the program is a 12-month apprenticeship that gives trainees exposure to five career paths in field services support areas at SWN. To date, we have hired 10 military veterans through this program.

To implement this program, we actively recruited former military personnel through multiple channels, including career fairs at military bases, partnerships with the Texas and Louisiana Veterans Commissions, and newspaper advertisements and job postings on our external career website. To address relocation concerns, we held periodic information sessions for soldiers and their trailing spouses.

Alan Stubblefield
Senior Vice President,
Operations, E&P Services, SWN

"Our military personnel have made incredible sacrifices to serve and protect our country, and when they return home, they deserve support and recognition from companies like Southwestern Energy. Our Military Apprenticeship Program has been an effective pipeline for hiring transitioning military veterans. Integrity, ethics and an adherence to a strong safety culture are core values within SWN and they are very similar to those qualities that are woven throughout the culture of the military. The transferable skills veterans bring to the job, the team-focused attitude with their co-workers and their personal determination to add value through their smart work are highly valued within SWN.

Soliciting Feedback

Many of our contractor programs are designed to communicate SWN's expectations to our contractors, but we also seek input from these contractors. Our contractor workshops, for example, include opportunities for our vendors to provide feedback to us. Our goal is to have one or more two-way interactions – such as contractor forums or workshops – per year with all of our contractors in each of our major operating areas.

Support for Local Contractors

Similar to our efforts to hire employees local to our operations, we also support local vendors and contractors. Though we use larger, nonlocal suppliers for some of our major services when they are not available or competitive locally, we build relationships in the communities where we operate and use local and regional suppliers whenever feasible.

CONTRACTOR MANAGEMENT PROCESS

Project Preparation

As part of our project planning process, we engage contractors in a detailed assessment of their scope of work and any possible hazards associated with the project. Contractors must provide details of their plans to mitigate hazards before beginning work.

Qualification

Working with a third party, we evaluate potential contractors' technical skills, capabilities, past performance, insurance and health and safety records.

Pre-Job Activities

Before beginning work, all contractors must complete our Training Assurance Program and sign an HSE/TAP training acknowledgment form.

We engage our contractors directly to communicate expectations and solicit feedback.

Performance Assessment

We assess contractor performance continually while they are on the job. We perform a post-job assessment if an HSE incident occurs or there are repeated observations or warnings by SWN personnel on job sites.

Job Oversight

On SWN job sites, contractors hold daily safety briefings. SWN employees and authorized contractors monitor job activity, verify compliance with HSE requirements, document noncompliance and corrective action, and conduct inspection meetings to avoid recurrence of any incidents.

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