

# Safety & Reliability

Safe, reliable delivery of natural gas is our greatest responsibility to our customers, our employees, and the communities we serve. Safety guides everything we do.



2022 FEDERAL REPORTS

**ZERO**


- Reportable pipeline incidents
- Corrective action orders
- Notices of probable violation

# Safety Highlights

## Consistently low damages

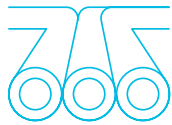
- Received Gold Shovel Standard certification in 2022 for the second year running for comprehensive damage-prevention actions
- Continued to drive down our consistently low damage rate to the lowest level in our history



NEARLY  
**70%**   
OF TRANSMISSION PIPELINE INSPECTED

- 2.5 times the rate required by regulations
- 86% of inspections performed through inline assessment

## OUR MODERN SYSTEM



- No cast iron pipes since 2000, no bare steel pipes since 2015
- Leading the industry with one of the lowest ratios of leaks per 100 miles of pipeline in 2022, a fraction of the industry average

**LOWEST NUMBER OF  
WORKPLACE INJURIES  
SINCE 2004**



**ZERO**   
reportable information  
security breaches

# Our Tight, Modern System

## One of the tightest, most modern natural gas distribution systems in the nation

In the mid-1980s, we worked with our public utility commissions in Oregon and Washington state to proactively create a pipeline replacement program. In 2000 we became one of the first companies in the country to eliminate cast iron pipes, and by 2015 we replaced all cast iron and bare steel pipe. We believe we are the first pure-play local distribution company to completely remove these legacy pipelines. Among U.S. natural gas utilities, NW Natural had one of the lowest ratios of leaks per mile of pipe in 2022.<sup>1</sup>

## Having eliminated vintage materials from our distribution system years ago, we're able to invest more of our resources in the next wave of innovations, including renewable energy and other environmental advances.

### Continuous inspection and monitoring

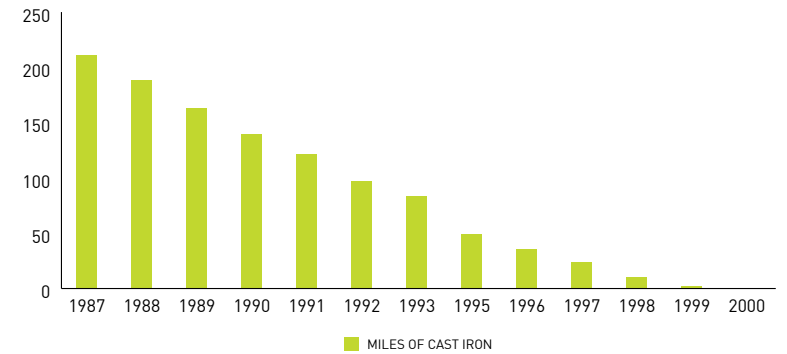
We vigilantly manage our 736 miles of transmission pipelines and approximately 14,300 miles of distribution pipeline. That means proactive monitoring, preventative maintenance, and prompt identification and repair of potential issues. To help prevent safety issues, our employees performed approximately 190,000 proactive field visits in 2022. We operate a 24/7 emergency hotline that enables us to promptly dispatch responders when there's a problem, and our NW Natural safety app connects customers to our 24-hour emergency line with one click. On average, we respond to damage and odor calls across our service territory in about 30 minutes or less.

## In 2022, we performed safety inspections on our transmission system at about 2.5 times the rate required by federal and state regulations.

We inspect our transmission system with a combination of direct assessments and technologically advanced inline inspection. At the end of 2022, we had inspected nearly 70% of our transmission system, primarily through inline inspection—a superior method, as it can assess pipeline integrity from inside the pipe.

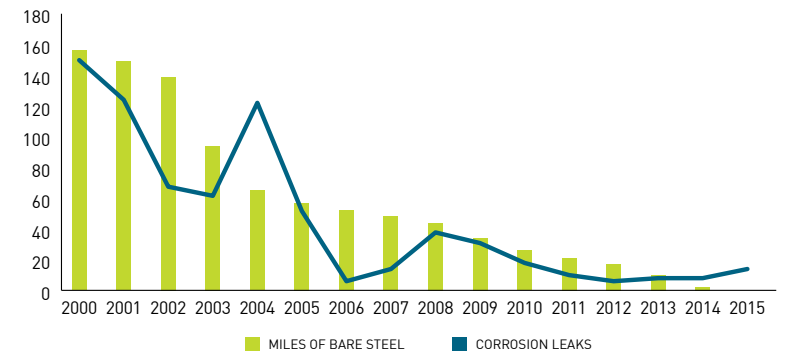
<sup>1</sup> Based on DOT Annual Report data for natural gas operators reporting more than 7,000 miles of distribution main

Cast Iron Pipe Replacement Completed in 2000



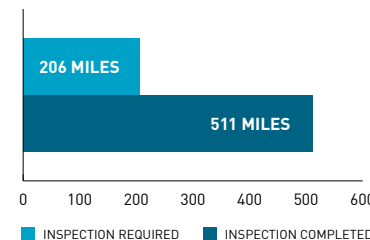
Source: Annual Department of Transportation (DOT) reports

Bare Steel Pipe Replacement Completed in 2015

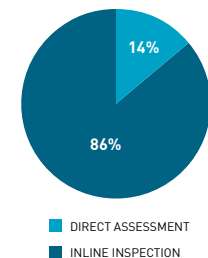


Source: Annual DOT reports

Exceeded Transmission Inspection Requirements  
MILES INSPECTED VS. REQUIRED



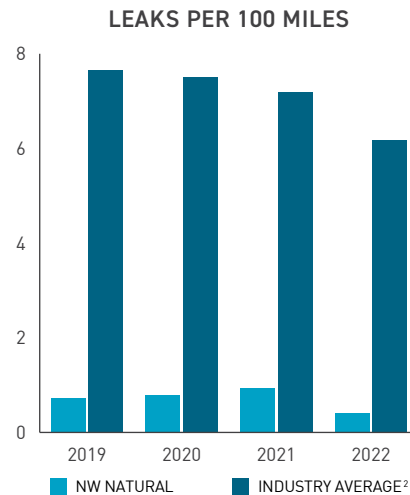
Majority of Transmission Pipeline Inspected Using Inline Approach  
INSPECT USING MULTIPLE APPROACHES





## NW Natural consistently leads the industry in the lowest number of leaks per mile of distribution pipeline

We strive to perform a leak survey of each gas main at least every five years, and survey 20% of mains every year. We also strive to perform leakage and atmospheric corrosion surveys every three years on residential service lines. Raising the bar on the federal requirement to perform these inspections annually in business districts and high-occupancy buildings, we have greatly expanded our classification of business districts for 2023. We use Supervisory Control and Data Acquisition (SCADA) and telemetry to monitor the system in real time and transmit data from remote sources. This powerful technology makes it possible to quickly detect leaks even in remote locations.



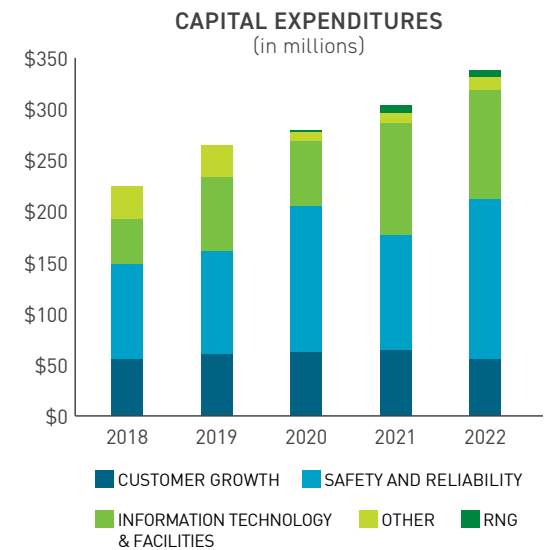
<sup>2</sup> Based on DOT Annual Report data for natural gas operators reporting more than 7,000 miles of distribution main

<sup>3</sup> Cap-ex is on an accrual basis and includes cloud-based software

## Investing in safety improvements

We're continually investing in the safety and reliability of our natural gas infrastructure. In 2022 NW Natural invested \$338 million<sup>3</sup> to complete a range of projects, including system reinforcements to improve reliability, pipeline retrofitting for inline inspection, and improvements to our underground storage and Liquefied Natural Gas (LNG) facilities. We also completed a significant multiyear project to upgrade our enterprise resource planning information system, and we invested heavily in cybersecurity technology to protect our critical systems and customer data. These improvements are designed to enable us to continue providing our customers with safe, dependable energy delivery services and strengthen our foundation for contributing to a renewable energy future.

Total investment in capital expenditures is calculated on an accrual basis and includes cloud-based software.





### Troubleshooting and teamwork to keep the system safe

The eight members of the Transmission Maintenance Group are responsible for keeping the high-pressure and transmission pipeline system safe, reliable and in good working order. They patrol the pipelines in NW Natural's service territory for leaks, indications of landslides, and other changes that could compromise pipeline integrity. They also perform strength testing of high-pressure pipelines and run devices that clean pipelines and inspect the integrity of the pipeline. And they do the critical work of "tapping and plugging" —isolating sections of pipeline during maintenance and repair to create safe work zones without shutting down the system or venting emissions into the atmosphere. It's challenging work, grounded in safety protocols. "We all trust each other, which is huge," said longtime team member Darin Yost. "Our main job is to make sure everybody stays safe and goes home at night."

# Reliability and Resilience

## Careful planning for reliable delivery

Approximately 2 million people depend on us to deliver the energy and essential services they need to heat their homes, cook their meals and keep their businesses running. NW Natural has developed a risk-based method for determining how to provide this energy to customers without interruption, both now and over the long term, even when demand is at its highest. This is done through a process of evaluating different energy-demand scenarios and resource-acquisition strategies, as outlined in our [Integrated Resource Plan \(IRP\)](#).

We conduct this involved analytical process to help maintain adequate gas supply to meet customer needs every day across the year (energy planning) and during the coldest days we might experience (system capacity planning). To help lower costs for our customers and mitigate the risk of interruptions to our natural gas supply, we:

- Purchase natural gas from geographically varied sources
- Maintain a diversified portfolio of supply contracts
- Own and contract with natural gas storage facilities

**Our expertise in resource and energy planning will continue to be essential as we transition to renewable fuels for the pipeline.**

## NW Natural has abundant storage capacity in or near our service area—a unique and valuable resource for reliable energy delivery.

We expect to meet about 55% of our projected peak day energy requirement with gas from storage in or near our service area. Underground gas stored at our facility near Mist, Oregon holds sufficient capacity to supply natural gas to the Portland metro area for approximately one month during an average winter.

## Our resilient infrastructure

Maintaining the resilience of the US energy system is imperative. Compared with above-ground infrastructure, the underground gas delivery system is [less vulnerable](#) to disruptive events from extreme weather such as hurricanes and snowstorms. Our modern pipes are also designed to withstand stress from ground movement associated with earthquakes, landslides and other natural disasters.<sup>4</sup> A [study](#) by Portland State University's Center for Public Service suggests the natural gas system can be a crucial resource in the event of a major disaster that disrupts power to the Pacific Northwest.

## Resilient operations

We take measures so that in the event of a disaster we can continue to operate critical business functions, including gas control and emergency response. We build and upgrade our operations facilities to function in the event of a disaster so we can continue to operate these critical business activities.

- Our Portland headquarters, opened in March 2020, is also designed to remain operational after an earthquake. We completed construction of another NW Natural building that is designed to be operational after a large-scale seismic event. The Vancouver Resource Center in Southwest Washington is built to [Level 4 seismic standards](#), which apply to structures that are most critical to resilience.



## CUSTOMERS RELIED ON NW NATURAL WHEN TEMPERATURES DROPPED—AND WE DELIVERED

Reliability means peak planning and ensuring we have sufficient resources to meet all our customers' needs during the coldest weather our service territory can experience. That's exactly what we were called on to do during the 2022-2023 winter heating season, which placed record demands on our gas system. Time after time our infrastructure and our employees met those demands, and natural gas delivery continued uninterrupted all winter long—even through record-breaking temperatures, ice, and wind on Dec. 22, 2022, when we delivered an unprecedented 41 million cubic feet of gas in a single hour. Our storage facilities and overall hedged position worked to mitigate the amount of gas purchased on the spot market and helped to minimize the impact on customers' bills. Meeting the moment in December was a result of disciplined investments in the system over many decades.

<sup>4</sup> 2019 study by consulting firm ICF

- We continued to upgrade our facilities in 2022 as part of the company's Long-Range Facilities Strategic Plan for building resilient, energy-efficient structures. New resource centers in Vancouver, Washington and Lincoln City, Oregon were built to the same Level 4 seismic standards we adhere to for new construction of all critical facilities.
- NW Natural uses FEMA's [National Incident Management System](#) and [Incident Command System](#) (ICS) to manage emergency situations that could disrupt our operations. The ICS is designed to address any hazard, whether it be a natural disaster, a pandemic, a technology issue, a cybersecurity incident, or an event such as major damage caused by third-party excavation.



### Installing excess flow valves to extend system safety

Excess flow valves (EFVs) can automatically stop the flow of natural gas to a home or business if the service line is damaged by a seismic disturbance or other catastrophic event. We're installing EFVs on new service lines and planning to retrofit EFVs on existing service lines meeting certain specifications. To date, we've installed more than 295,000 EFVs on about 40% of the service lines in our system, which compares to an industry average of 27%.<sup>5</sup>



### Taking system safety to the next level

NW Natural leverages new technologies and best practices to keep our employees, our system, and the public safe.

- We're active in the American Gas Association (AGA) Best Practices Program, a voluntary peer review forum for local natural gas utilities across the US to share information on safety and reliability and support safety management efforts at the industry level.
- In 2022 we were a partner company in the U.S. Environmental Protection Agency's (EPA) Natural Gas STAR Program.<sup>6</sup> EPA launched the voluntary partnership with natural gas operators in 1993 to achieve important reductions in methane emissions.<sup>7</sup>
- We're taking our safety program to the next level with our Pipeline Safety Management System (PSMS), a voluntary, holistic framework for promoting safety awareness, vigilance, and cooperation throughout the company. Safety management systems have been shown in many industries to dramatically decrease safety incidents.<sup>8</sup>

<sup>5</sup> Based on 2022 Pipeline and Hazardous Materials Safety Administration (PHMSA) data for natural gas distribution companies with more than 400,000 service lines.

<sup>6</sup> EPA transitioned the Natural Gas STAR Partnership Program in 2022 after 30 years, but the agency continues to partner with operators making ambitious commitments to methane emission mitigation and transparency through the [Methane Challenge Partnership](#). NW Natural is a founding partner of the Methane Challenge.

<sup>7</sup> Distribution partners cumulatively reduced methane emissions by 18.5 million MTCO<sub>2</sub>e over the life of the program with practices such as leak detection and repairs and preventing gas loss from dig-ins.

<sup>8</sup> For example, the U.S. Federal Aviation Administration (FAA) requires most U.S. commercial airlines to have Safety Management Systems (SMS) in place.



## Continuously improving pipeline safety

Our commitment to safety extends beyond adhering to regulatory mandates. Our Pipeline Safety Management System (PSMS) is an entirely voluntary program that provides a holistic framework for managing risk and promoting continuous improvement of safety practices. PSMS engages all employees, from frontline workers to executives, in advancing the program's ultimate goal of reducing pipeline incidents to zero. In 2022 we accelerated our progress toward establishing a mature, robust PSMS program by:

- Strengthening NW Natural's existing safety programs and integrating them into our PSMS
- Implementing documentation for safety-related processes
- Strengthening our event-learning program, including training across a diverse group of personnel

## Damage prevention

Digging by third-party contractors is the biggest cause of damages to NW Natural pipelines. Excavation damages have a significant economic impact in the U.S., costing society an estimated \$30 billion annually.<sup>9</sup> Preventing these damages protects public safety, prevents interruptions in gas service and helps reduce pipeline emissions.

NW Natural began comprehensive efforts to address this issue in 2006, working with our state regulators to implement more rigorous dig laws, and providing training and intervention to help contractors excavate safely. Since then, damages due to digging have declined by about 70%.

## NW Natural's already low damage rate decreased again in 2022, to the lowest level we have ever recorded.

We continued to drive down our damage rate in 2022 as we refined our risk-based locate response program. State-of-the-art [technology](#) makes it possible to evaluate every locate request to identify the riskiest excavations. This data-driven approach helps us understand where the risk of damage is highest so we can effectively prioritize and intervene where necessary. We also continued a robust multimedia campaign, in Spanish and English, reminding landscapers, contractors and homeowners how to avoid damaging lines. Excavators or homeowners can call 811 or use the free NW Natural safety app to have utility lines located before digging.

In 2022 the percentage of excavation damage incidents attributable to insufficient excavation practices fell to a historic low of 33%—down from 38% in 2021. In 2022, we increased the amount of time damage prevention specialists spend on high-risk interventions. Our specialists also engaged third-party excavators by:

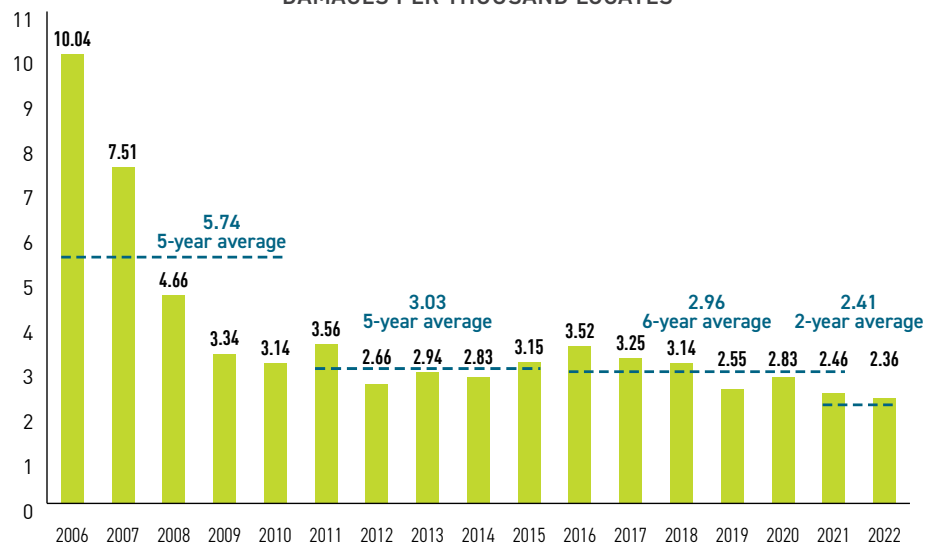
- Offering trainings tailored to the kind of work each contractor does
- Contacting individual excavators prior to project start date to discuss the scope of work, dig laws, best practices and the location of NW Natural facilities
- Meeting the excavator on-site to perform jobsite assessments
- Providing a point of contact and support for the excavator on that jobsite and any future jobsites

NW Natural is accredited by the Common Ground Alliance (CGA) Damage Prevention Institute, an association committed to promoting public safety and effective damage prevention practices through partnership and collaboration. We were the first Oregon-based utility to earn a Gold Shovel Standard certification in 2021, a widely recognized credential that certifies the company is taking specific, comprehensive actions to prevent underground infrastructure damages. In 2022, we were once again awarded the certification.

<sup>9</sup> [https://commongroundalliance.com/Portals/0/2020%20DIRT%20Report\\_09.29.2021\\_Final4.pdf?ver=2021-11-03-143123-490](https://commongroundalliance.com/Portals/0/2020%20DIRT%20Report_09.29.2021_Final4.pdf?ver=2021-11-03-143123-490)



DAMAGES PER THOUSAND LOCATES



Source: Annual DOT Report

## Cybersecurity

### Intensifying our focus on cybersecurity

We prioritized cybersecurity in 2022 to protect our critical systems and customer data. Our vigorous cybersecurity program continued to be a significant and growing piece of our investment portfolio. About 6.5% of our total capital expenditures in 2022 were related to cybersecurity and nearly 24% were information technology (IT) related. NW Natural’s commitment to cybersecurity encompasses our third-party partners. We manage third-party cybersecurity risks by asking detailed questions, reviewing independent assessments, requiring incident reporting, and ongoing monitoring. In 2022, we were not materially impacted by any information security breach of a third party. Our cybersecurity activities are supported and overseen at the highest levels of the company and the audit committee of our board.



### NW Natural had zero known reportable<sup>10</sup> information security breaches in 2022

With significant new investments to enhance cybersecurity protocols, systems and staff, we continued to incorporate IT best practices in 2022. This included expanding our IT teams, implementing new security processes and products, and onboarding new partners for managed services and 24/7 monitoring and detection.

#### Cybersecurity highlights for 2022 include:

- Implemented more than half of our five-year cybersecurity roadmap in a single calendar year
- Our cybersecurity team was engaged every step of the way as we completed the company’s largest IT project ever—a major upgrade to our enterprise resource planning system.
- Executed eight tabletop exercises with the business to practice for potential security incidents
- Performed successful penetration tests. These simulated attacks, carried out to evaluate the security of an IT infrastructure, are critical for detecting vulnerabilities and combatting threats
- Received TSA approval of our Cybersecurity Implementation Plan for meeting revised federal [security directives](#)

<sup>10</sup> For the purposes of this report, “reportable information security breaches” are those that are required to be reported to the Securities and Exchange Commission or the public generally.

## Cybersecurity strategy and operations

We continually review and update our cybersecurity strategy to help secure technology systems and ensure the safe flow of gas to our customers. In 2022 we launched a new cybersecurity strategic plan. The previous plan was a five-year strategy created in 2021, but we updated it because more than half the proposals it outlined were completed after just a year. The latest version of the plan defines our cybersecurity strategy from 2023 through 2027. It focuses on six key objectives: objectives: security governance, cybersecurity risk management, compliance, defensibility, zero-trust architecture, and cloud security.

While implementing new policies and plans in 2022, **we sharpened our focus on cybersecurity operations.**

- 100% of our active employees participated in information security training that demonstrates how to protect confidential information at work, identify potential cybersecurity risks and take action in case of a suspected information security incident. We also provided focused phishing training in 2022, including extra training for groups that face elevated security risks.
- Additional staff onboarded in 2022 enabled us to provide security risk assessment briefings for executives on threats to the company
- Continued adhering to process controls, performing security assessments and working to align our program to the [NIST Cybersecurity Framework](#) and other key standards
- Expanded our detection capabilities
- To reduce cyber risks, we routinely:
  - » Use multiple layers of security technology
  - » Employ a variety of technologies and processes, such as multi-factor authentication (MFA), that add a layer of protection to the sign-in process
  - » Have endpoint protection to shield servers and laptops from cyber threats
  - » Execute third-party penetration tests to expose vulnerabilities
  - » Perform periodic maturity assessments to measure our progress
  - » Test response actions
  - » Work closely with numerous local and federal agencies, including the U.S. Department of Homeland Security, Department of Energy, Transportation Security Administration and the FBI

## Our cybersecurity operations received an excellent rating of 750 in 2022 from BitSight, the world's foremost cybersecurity ratings platform. NW Natural's rating was higher than 70% of our industry peers.

Cybersecurity activities are supported and overseen at the highest levels of the company. Our executive team, with leadership from our vice president and chief information officer, is responsible for implementing the information technology and services (IT&S) strategic plan and setting the tone at the top with respect to cybersecurity. Specialists in particular business areas (for example, information technology, security and procurement) apply their specific expertise to the company's strategy. Our audit committee, comprised of four independent board members, oversees management's strategies, investments and risks related to the company's IT systems, cybersecurity and compliance. In 2022, the audit committee received three cybersecurity updates. The full board was briefed on cybersecurity matters reviewed by the audit committee, and the board received two additional cybersecurity-specific updates in 2022.



### Matt Carlson: 2022 Chief Information Security Officer of the Year

In a time of urgency around the issue of cyber threats to the nation's energy delivery systems, the job of chief information security officer for a utility requires technical knowledge, strong leadership skills, composure under pressure and a deep understanding of industry-related compliance standards and regulations. These are the qualities NW Natural cybersecurity & compliance director Matt Carlson displays as the person responsible for the security and compliance of all company-wide technology systems. His skills have been honed through a breadth and depth of experience that includes serving in the U.S. Navy, earning two master's degrees and working at the U.S. Department of State and U.S. Department of Treasury. In 2022 Carlson was named CISO (Chief Information Security Officer) of the Year by the Portland chapter of the Society for Information Management (SIM), which recognizes excellence in information security leadership. He's quick to point out that the award reflects his team's excellent work. "My team members all share a strong desire to learn and they are concerned with the impact their efforts have on the company," he said. "This award attests to the high quality of their work."

# Employee Safety

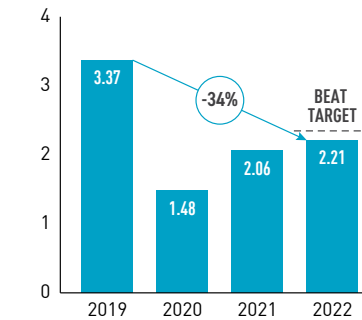
NW Natural is engaged in a companywide initiative to systematically pursue our ultimate goal of eliminating safety incidents. Our Journey to Zero program, launched in 2020, focuses on preventing injuries and building a safety culture based on open communication, collaboration, and a strong service ethic. Each year, we set a target of reducing injuries by 10% over the previous three-year period.

## A year of strong safety results

Our Journey to Zero on-the-job safety initiative continued to deliver results in its third year, with a decrease in workplace injuries and a big increase in near miss reporting (good-catch rate) from 2021. The period from 2020 to 2022 marked one of the best three-year safety performances in our history. Highlights include:

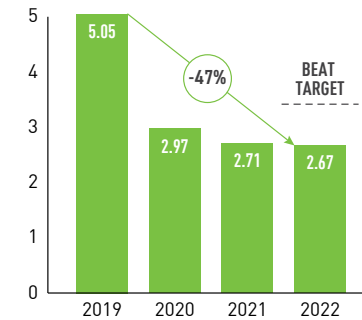
- For the second year in a row, we ended with the lowest number of workplace injuries in nearly two decades. This reflects a steady trend of improvement in the total recordable incident rate (TRIR), which has decreased by nearly half since 2019.
- We also saw a 25% increase in near miss frequency/good-catch rate, which improved from 12.64 in 2021 to 15.86 in 2022—an increase of nearly 78% since we launched Journey to Zero in 2020. The near miss frequency rate is a leading indicator that reflects our expanded focus on proactively addressing safety concerns.
- We had the lowest number of vehicle collisions in 12 years, one of the best results since we started collecting data in 1979.
- The severity of injuries remained consistently lower. Although there was a slight uptick of 0.15 (representing less than one injury) in days away or restricted time (DART), most incidents resulted in fewer than five days of days out of work, or on restricted duty. Added together, the severity of incidents for the entire three-year period from 2020-2022 was lower than the single-year total for 2019, the year before we launched our Journey to Zero safety initiative.
- We had no OSHA injuries in October 2022—the best monthly safety performance since we began documenting safety incidents.

DAYS AWAY OR RESTRICTED TIME RATE (DART)



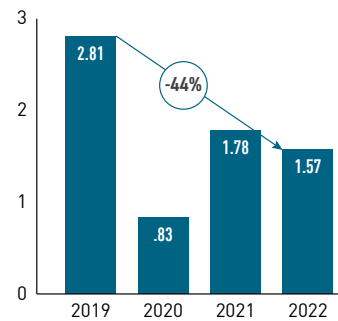
DART =  $\frac{\text{\# of incidents with lost time or restricted duty} \times 200,000}{\text{Number of hours worked}}$

TOTAL RECORDABLE INCIDENT RATE (TRIR)



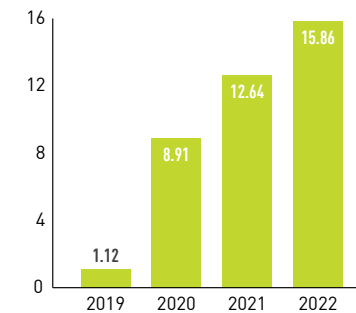
TRIR =  $\frac{\text{\# of incidents requiring medical attention} \times 200,000}{\text{Number of hours worked}}$

LOST TIME INCIDENT RATE (LTIR)



LTIR =  $\frac{\text{\# of lost time injuries} \times 200,000}{\text{Number of hours worked}}$

NEAR MISS FREQUENCY RATE



## Continuing the journey toward safety excellence

In addition to emphasizing critical on-the-job safety practices, we took several far-reaching steps in 2022 to keep employees safe and healthy, including:

- **Introducing a “Work Ready” program** designed to help employees work and move in safer ways, using the same techniques that keep athletes at peak performance. Work Ready brings a scientific approach to preventing workplace injuries—including strains and sprains, the most common causes of lost work time. The voluntary app-based program is not just for employees out in the field lifting, reaching, climbing and bending; it’s also for employees who are sitting at desks looking at screens. Work Ready is available for employees and their immediate family members.
- **Implementing powerful enterprise resource planning (ERP) technology** that includes new tools to streamline health and safety reporting. The new platform allows employees to log incidents, near misses and safety observations in real time from a mobile device, laptop or desktop computer, and it provides a one-stop shop for analyzing safety submissions and extracting key insights.
- **Intensifying our focus on preventing Serious Injury and Fatality (SIF) incidents.** NW Natural has a zero SIF rate, with no fatalities for more than a decade. To take SIF prevention a step further, we began reviewing all collisions, injuries and near miss/good catch reports to identify potential SIF (PSIF) incidents and evaluate the controls we have in place to prevent serious injuries.
- **Designing facilities to promote employee safety.** Prior to the opening of our new Lincoln City Resource Center in 2022, our operations, facilities and safety teams used [prevention through design](#) principles to eliminate or mitigate safety and ergonomic risks. These principles are applied in the design of all newly constructed or remodeled NW Natural facilities.



- **Signed on to a nationwide worker-safety study** supported by the National Institute of Safety and Health (NIOSH). The [Total Worker Health® research program](#) focuses on reducing and preventing work-related risk factors that have an impact on employees’ safety, health and well-being. In Oregon the study is run by Oregon Health & Science University’s Oregon Healthy Workforce Center. In addition to contributing to the research effort, we’re getting ideas we can implement to contribute to the excellence of NW Natural’s employee safety program.



## Rising to the Work Ready Challenge

In summer 2022, NW Natural held its first Work Ready Challenge, a spirited competition that encouraged employees to engage with the company’s new app-based Work Ready injury prevention program. The challenge introduced participants to new health routines and inspired teams to build connections. The program has steadily gained traction. Many work groups practice the Work Ready dynamic warm-up routine every day, and benefits are showing up in important ways. Within a month of the Work Ready launch, injury stats were impressive, with only three musculoskeletal injuries and no recordable injuries. We had zero OSHA injuries in October 2022—the best monthly safety performance since we began documenting safety incidents.

Not to be used for investment purposes—see NW Natural and NW Natural Holdings most recent Form 10-Ks as updated by the most recent quarterly and periodic reports for information relevant to investment decisions.

## Our Safety Management Program

NW Natural's health and safety policies and procedures are designed to comply with all applicable regulations—and we strive to go beyond compliance.

- We have a strict stop-work policy when an employee is involved in an accident, and a 24/7 nurse care line available to all employees. We provide alternative working opportunities that allow employees to recover while continuing to contribute.
- A portion of our executives' compensation is tied to achieving our safety metrics, and our board of directors regularly reviews company safety metrics.
- We have a safety steering committee overseen by our executives, as well as a dedicated safety team led by our VP, chief human resources and diversity officer, who reports directly to the CEO.
- We monitor safety performance to help us understand the origins of incidents and develop root-cause trend analysis.
- We work to incorporate industry best practices and benchmarking, including peer analysis and assessments done by the AGA. Our internal auditors periodically review our safety department and health and safety policies. We also conduct third-party assessments to audit aspects of our safety management system.

- We seek to work with contractors that meet or exceed safety standards and practices for their industries. We use ISNetworld's contractor management services to help us evaluate contractors' safety performance and policies, including criteria such as insurance and drug and alcohol testing standards.

## Comprehensive safety and technical training

We maintain an extensive, proactive training program that includes compliance, emergency preparedness, identifying hazards and handling high-risk situations. Every year operations employees complete classroom instruction and hands-on training at our state-of-the-art Training Town facility, which features a simulated neighborhood complete with functioning underground natural gas lines. We also offer self-paced virtual training through our learning management system (LMS) to keep training current and support our blended learning approach.

NW Natural employees logged more than 30,000 safety training hours in 2022, and we also continued to provide training for third-parties. We hosted more than 300 immersive safety trainings to prepare firefighters to respond to emergencies that involve or affect the natural gas system.

The technical training department fully leveraged NW Natural's new LMS in 2022 to obtain a robust set of data for analyzing the effectiveness of our safety training. The ability to track employee qualifications and automate training requirements helps us ensure regulatory compliance and verify that our field personnel have the knowledge and skills to maintain system safety, identify hazards and safeguard our crews, customers and communities.

## 2022 TRAININGS



**30,667**  
TOTAL PIPELINE  
SAFETY TRAINING  
HOURS



**2,080**  
TRAINING HOURS  
clocked by employees  
at our "Training Town"  
simulated neighborhood



**362-member  
field staff**  
attended additional quarterly, annual,  
and scenario-based safety trainings,  
as well as monthly safety presentations

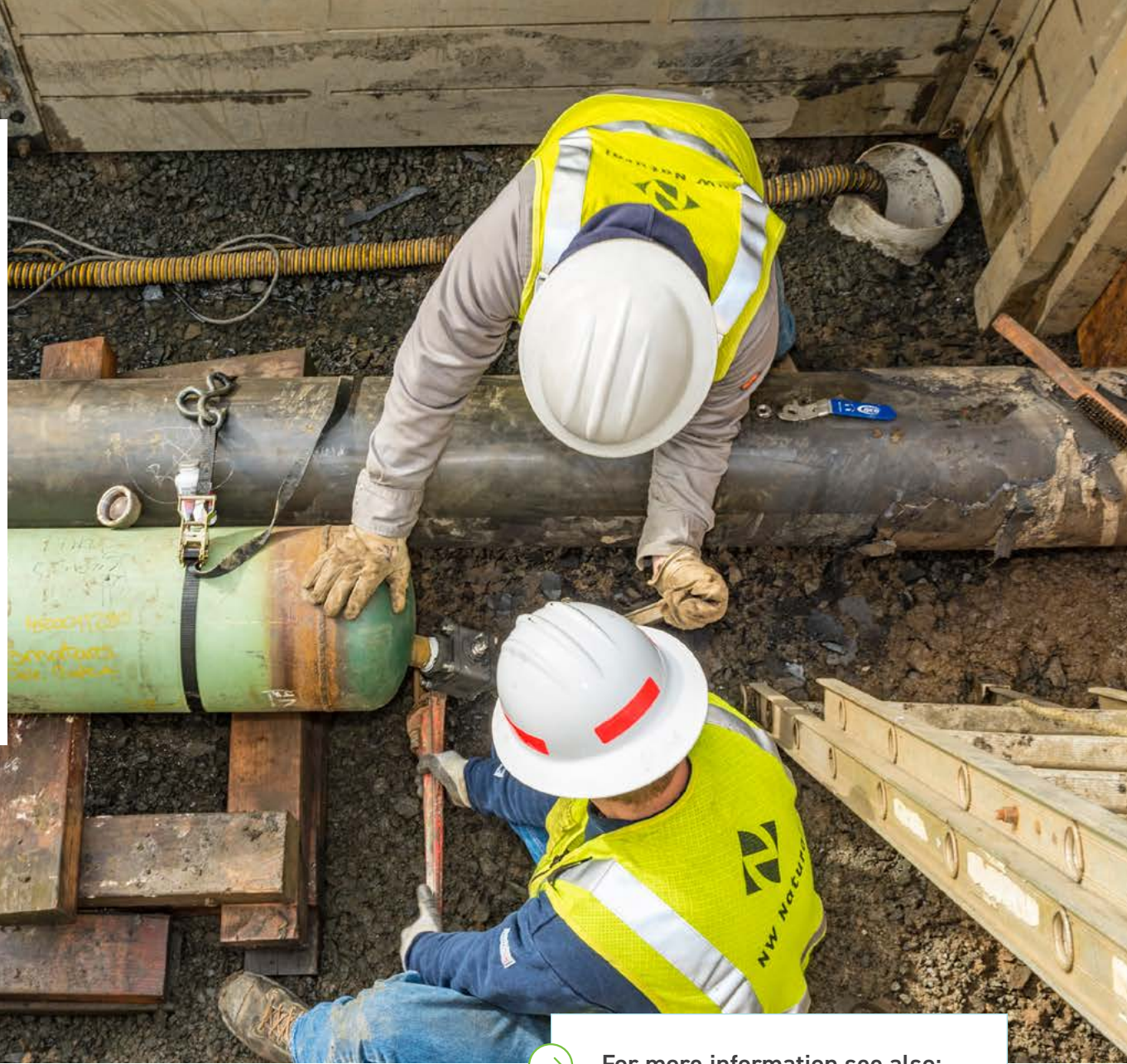


**329 firefighters  
trained**  
in emergency procedures  
involving gas lines

## Quality Assurance Program

Quality Assurance (QA) programs for gas distribution utilities are not mandated by federal code, but NW Natural has had a QA program in place since 2006. The QA team follows up on training and inspects work in the field to verify that employees and contractors are working safely and effectively across field operations. In 2022, the team completed nearly 3,000 inspections of work performed by NW Natural employees or contractors. Our quality & qualifications manager reports results quarterly to a QA steering committee that includes leadership from field operations and operations technical services.

Since implementing our QA program we have seen consistent improvements in work performance, and we have collected data to help us provide timely feedback for employees and improve training, policies and procedures. Our leading practices in this area have allowed us to serve as a resource for companies looking to implement similar programs.



For more information see also:

- [Residential Safety](#)
- [Our Safety Measures](#)
- [Pipeline Safety](#)