



**GROW WITH US**

2019 Corporate  
Sustainability  
Report

—  
*April 2020*



**CASCADe**

DRILLING | TECHNICAL SERVICES

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# ABOUT THIS REPORT

**Cascade's 2019 Corporate Sustainability report has been prepared in accordance with the GRI Standards: Core option.** This internationally recognized sustainability framework provides a credible platform and consistent method to measure our growth and connect with you- our most valued stakeholders.

Cascade has published an annual sustainability report since 2014. This report covers the calendar year 2019. We've included data from our two previous reports where possible to help our stakeholders understand the trends in our business and our progress towards stated goals. The data provided in the report represents the entire Cascade family of brands unless noted otherwise. Because Cascade is a privately held company, certain financial information is not publicly released. For reporting purposes, we consider each physical Cascade office or facility a significant location.

The topics and data provided in this report were thoughtfully identified through extensive engagement efforts and material assessments. Cascade's Sustainability Council meets regularly to review feedback collected through a variety of channels including surveys, meetings, social media, email, industry reports, and other business tools to gain a better understanding of the issues that may potentially impact our business. Through open dialogue, we seek to understand the impacts of our operations on our stakeholder groups—especially employees, clients, and our procurement partners.

## **Feedback Contact**

Getting the right information to the right people is important to us. We encourage you to let us know how we are doing. You can provide feedback, ask questions, or request further information by contacting:

### **Sue Bruning**

Sustainability Council Chair  
Cascade Environmental  
sbruning@cascade-env.com  
567.202.3525

## **Restatements of Information**

Restatement of Total Workforce Diversity by Job Type and Age data in Diversity section of this report. There was a rounding error resulting in the total sum categories less than 100%.

Restatement of our supply chain spend for 2018 is located in the Supply Chain section of this report. There was a miscalculation resulting in the total sum of the all spend categories greater than 100%.

Restatement of injury rates for 2017 and 2018 is located in the Injury Rates section. An internal audit revealed the total number of hours worked for these years was overstated based on the assessment of salary exempt hours.

# CHIEF EXECUTIVE'S MESSAGE



**John W. Cowdery**  
President & CEO

## **Welcome to our 2019 Corporate Sustainability Report.**

Our theme this year is Grow With Us. It's quite fitting for many reasons. To grow is to increase in size, complexity, and impact on your surroundings. Growth requires change and adaptation. Growth is success and symbolizes vibrancy and resilience. For me, growth elicits thoughts of a future filled with possibilities. For our organization, growth is all of this and perfectly captures the essence of our sustainability efforts.

But our sustainability efforts aren't just about growing the organization. More importantly, they are about fostering conditions that nurture our employees, our clients, our vendors- all of our stakeholders- and allow you to grow along with us.

The principles of sustainability have guided our growth strategy for many years. Our Sustainability Council manages and reports on our impacts in the areas of environmental stewardship, social responsibility, and economic investment to foster the growth of our Company, our employees, and our clients. This year we introduced the Cascade Playbook as a way to communicate who we are, why we exist, and our game plan to move this organization forward in a positive way. We have integrated systems for data collection, analysis, and decision making in a way that increases efficiencies and improves the quality of services we deliver to clients every day.

Our Sustainability Council uses the *Global Reporting Initiative* framework to engage stakeholders and identify the issues that matter most to our employees, clients, and supply chain partners. These issues are evaluated and prioritized based on a wide range of factors including:

- the degree of potential and real impact to you- our stakeholders
- the degree and type of influence on our health of our Company
- the level of complexity in addressing the issue
- the resources required to address the issue
- the timing of impact (short, mid, and long term)
- the alignment with our long-term growth strategy

The most critical issues are organized under five goals which Cascade's 2020 Sustainability Plan specifically addresses: environmental impact, customer service, fleet, employee experience, and communication. This report reflects our vision and progress on these key focus areas and is filled with specific examples of our achievements as well as missed opportunities.

# CHIEF EXECUTIVE'S MESSAGE *(cont'd)*

## **Overall performance**

- We are pleased with the overall performance and impact of Compass™, our Corporate Sustainability Program
- Utilizing the GRI sustainability reporting framework has enabled our Sustainability Council to provide more in-depth analysis and increase the number of reporting metrics. This year we've added two new material issues: technology and cybersecurity
- Yes, we celebrate our achievements here, but our growth is also about examining the missed opportunities and committing to continuous improvement to exceed all our targets

## **Achievements**

- Continued to increase revenue and maintain financial health for continued growth of our organization
- Invested more than \$1M in information technology to protect against threats in 500,000 emails and 100,000 malicious log-in attempts each month
- Achieved a 7% absolute reduction in fuel consumption over the last three years while the number of fleet assets increased by 4%
- Stellar compliance and safety record with best-in-class TRIR of 0.69, nearly 90% of all business units have gone one year or longer without a reportable incident or loss time accident, and \$40M estimated savings due to immediate preventative action
- Invested more than \$1.6M in employee training in 2019 and more than \$5M in the last three years to support new training opportunities every year

## **Missed Opportunities**

- Over the last three years, the mix of our workforce in terms of gender, age group, minority status, and veteran status has remained relatively steady. It will be challenging to meet our 2020 targets in most job categories without executive and senior management embracing the value of a diverse workforce and taking direct steps to recruit, hire, and promote across diversity and job categories
- We've identified a gender salary gap of 10%. Although this is about half of the national average of 19%, we are committed to closing the gap
- On average, approximately 30% of our total workforce receives an annual performance review. We are working to systematically and programmatically increase that to 80%

Many internal and external factors influence our priorities over time. These factors are dynamic and often outside of our organizational control. The way in which we respond to current and future, real and potential influences

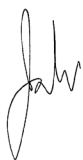
# CHIEF EXECUTIVE'S MESSAGE *(cont'd)*

have a direct affect on the Company's growth. When made through the sustainability lens, these responses embolden our resilience. This report details these challenges, our responses, and the impact on our stakeholders. The most critical influences include:

- Tight labor market. There is a shortage on the skilled labor required for environmental field services. The ability to recruit and retain this critical workforce directly impacts the quality of services our clients receive as well as the safety and efficiency of our everyday operations.
- Emerging contaminants. The industry is identifying new chemicals of concern more rapidly than ever. Public perception of the negative health and environmental impacts of these contaminants, like PFAS, is driving regulation and legal action. These emerging contaminants represent potential future liabilities for clients, even on sites that were long considered remediated. These sites span the entire country and affect every one of our end markets. Our ability to offer integrated solutions for the project lifecycle means clients more easily assess the long-term impacts and performance of projects. This type of collaboration is essential to the future growth and stability of our organization.
- Cybersecurity. No organization is immune to the digital attacks that cost businesses hundreds of thousands of dollars each year. Cyberattacks are a direct threat to our financial health and our reputation. Understanding how these threats attempt to breach sensitive data and critical technology systems is the first step in preventing the damage they cause. Adopting strategies to fight cyberthreats not only protects our employees and our business assets, it also protects our clients and their security efforts.

We truly believe there is a significant return on investment from the reporting process as it relates to our relationships, business strategy, and continuous improvement efforts. This process is a unique opportunity to connect with our stakeholders through data and real stories. I encourage you to read this report and continue to reference it throughout the year. Reach out to us and share your insights on the issues that matter most to you. Sustainability reporting isn't a static process. It's an effort of continuous improvement and engagement. I look forward to hearing from you.

Sincerely,



John Cowdery  
President & CEO  
Cascade Environmental

# MESSAGE FROM OUR SUSTAINABILITY COUNCIL



**Sue Bruning**  
Sustainability  
Council Chair

The Sustainability Council is excited to share our journey through Cascade's sixth Corporate Sustainability Report. This year's theme of growth was carefully chosen to reflect the progress we've made as well as the opportunities that lie ahead.

Our Compass Sustainability Program has evolved to support the changing needs of our workforce, clients, supply chain, and pressures that impact our business. Our Council is evolving too. This year we welcomed five new members to Council. Three members filled vacancies in existing seats. Council agreed to add two new seats to round out representation of our business functions:

Information Systems and Finance. We plan to add one new At-Large seat on Council in 2020 open to any employee with a passion for sustainability and interest in leadership. This new Council structure brings a rich diversity of ideas and experience that truly reflects the composition of our organization.

Some of our stakeholders have reached out asking for clarification on exactly what the Compass program is all about and how the role of the Sustainability Council fits into the larger fabric of our organization. We've found that most people quickly make the connection between the word 'sustainability' and the environmental stewardship issues like energy, climate, water, and waste. It's the social responsibility and economic impact issues that need some explanation and connection to the broader concept of sustainability.

One of our primary responsibilities as a Council is driving the implementation of Cascade's Corporate Sustainability Plan and then reporting to you on our progress, frustrations, and vision for the future. It's our job to help you make these connections between environmental, social, and economic metrics and the overall resilience of our organization. It's our duty to identify the issues that matter most to our organization and our stakeholders then develop the system to respond to those issues. We hope this Corporate Sustainability Report sheds some light on those connections. Our Council is committed to improving communications with our stakeholders through education and outreach. We encourage everyone accessing this report to reach out and ask the tough questions, exchange ideas, and share in our sustainability journey. We look forward to continued growth.

A handwritten signature in cursive script that reads "Sue".

**Get to know  
Cascade in less  
than 4 minutes**

<http://bit.ly/2CfTlvD>

 READ MORE ONLINE

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## OUR BUSINESS

Cascade has experienced tremendous growth since publishing our first Corporate Sustainability Report in 2014. Since that time, we've doubled our workforce, added ten locations, increased annual revenue by more than 100%, and completed more than 30,000 projects. Our Compass Corporate Sustainability Program has served as the solid foundation for this growth and is reflected in our core purpose statement.

### **Our Core Purpose**

To be the essential business partner that contributes to our clients' success and advancement in tackling even the most challenging environmental and geotechnical problems, to contribute to our industry and the betterment of our employees' careers and the communities we serve.

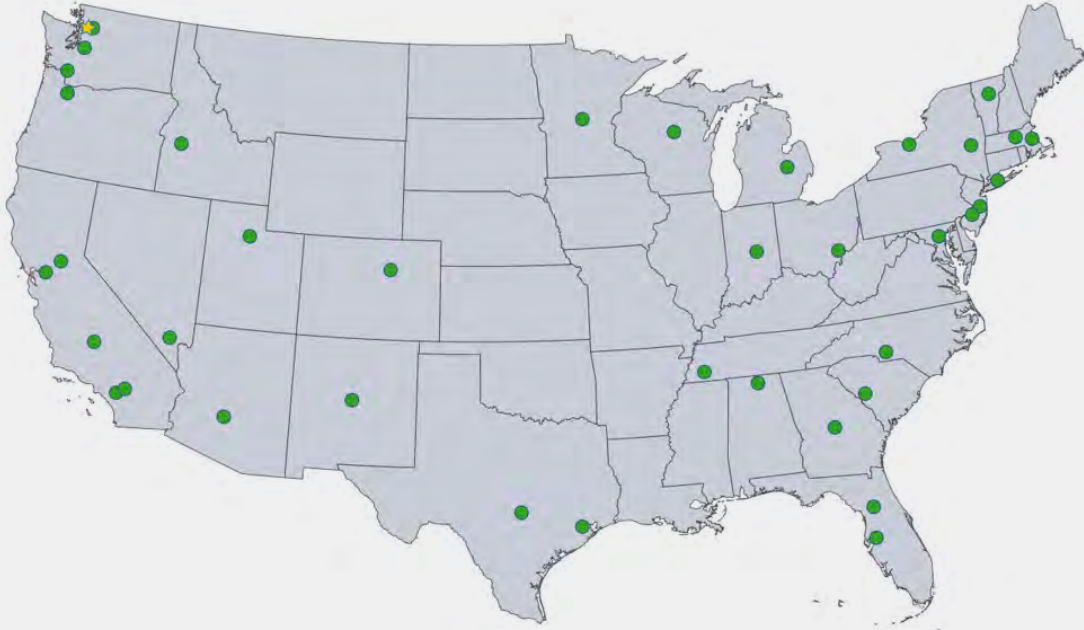
### **Who We Are**

Cascade is filled with curious-minded people who seek to provide the best technology and approach to solving problems. We are collaborators bringing creativity and innovation to everything we do.

Cascade is the only national provider of integrated drilling, site characterization, and remediation services with the fleet, people, and experience to solve complex environmental and geotechnical issues.



## Cascade At A Glance



904  
employees

37  
locations

~6,000  
jobs performed

\$203M  
net sales



Visit <https://www.cascade-env.com/locations/>  
for national list of Cascade offices.

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## Investing in Our Communities

At Cascade, we believe it is our business to take care of the natural environment, invest in our communities, and grow our business in a way that positively impacts all those around us. The Cascade Cares Charitable Investment Program (ChIP) supports our three principles of sustainability-environmental stewardship, social responsibility and economic growth. ChIP was designed in collaboration with our employees to coordinate corporate-level philanthropic efforts as well as maximize impacts in our local communities.

### A Cascade employee utilized Cascade Cares to double her donation to Mid-Michigan Honor Flight.

She decided to donate after seeing the impact an honor flight had on her father. "Listening to my dad describe this experience was wonderful and for him to go on this flight before he passed away really meant a lot to us all. I thought it would be wonderful to contribute for another veteran."



\$5,160

donations matched

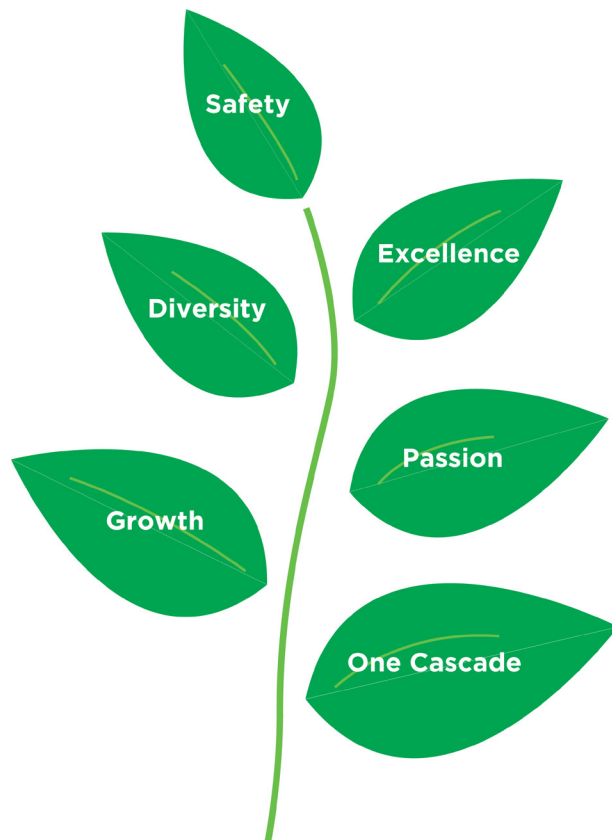
The Honor Flight Network is an organization that flies WWII veterans to Washington, DC free of charge to see the national WWII memorials that honor their service.

## **MISSION**

Cascade is the leading provider of environmental and infrastructure drilling, site characterization, and environmental remediation applications. We are the only nationwide integrated service provider with expert technical capabilities and fleet to fulfill all your project needs- anywhere, every time.

## **VISION**

Our vision is to integrate technology, safety, sustainability and human potential to tackle the challenging environmental and geotechnical issues facing our clients.



## CORE VALUES

### **Safety**

We believe in providing a workplace free of recognized hazards for the safety, health and well-being of our employees and clients.

### **Excellence**

We believe in exceeding expectations in everything we do. We believe in providing outstanding service that gives our clients a competitive edge and makes their job easier.

### **Diversity**

We believe that diversity is a key component to our company's success and sustainability into the future.

### **Passion**

We love what we do and strive to be excellent on every level, in every function of our company.

### **Growth**

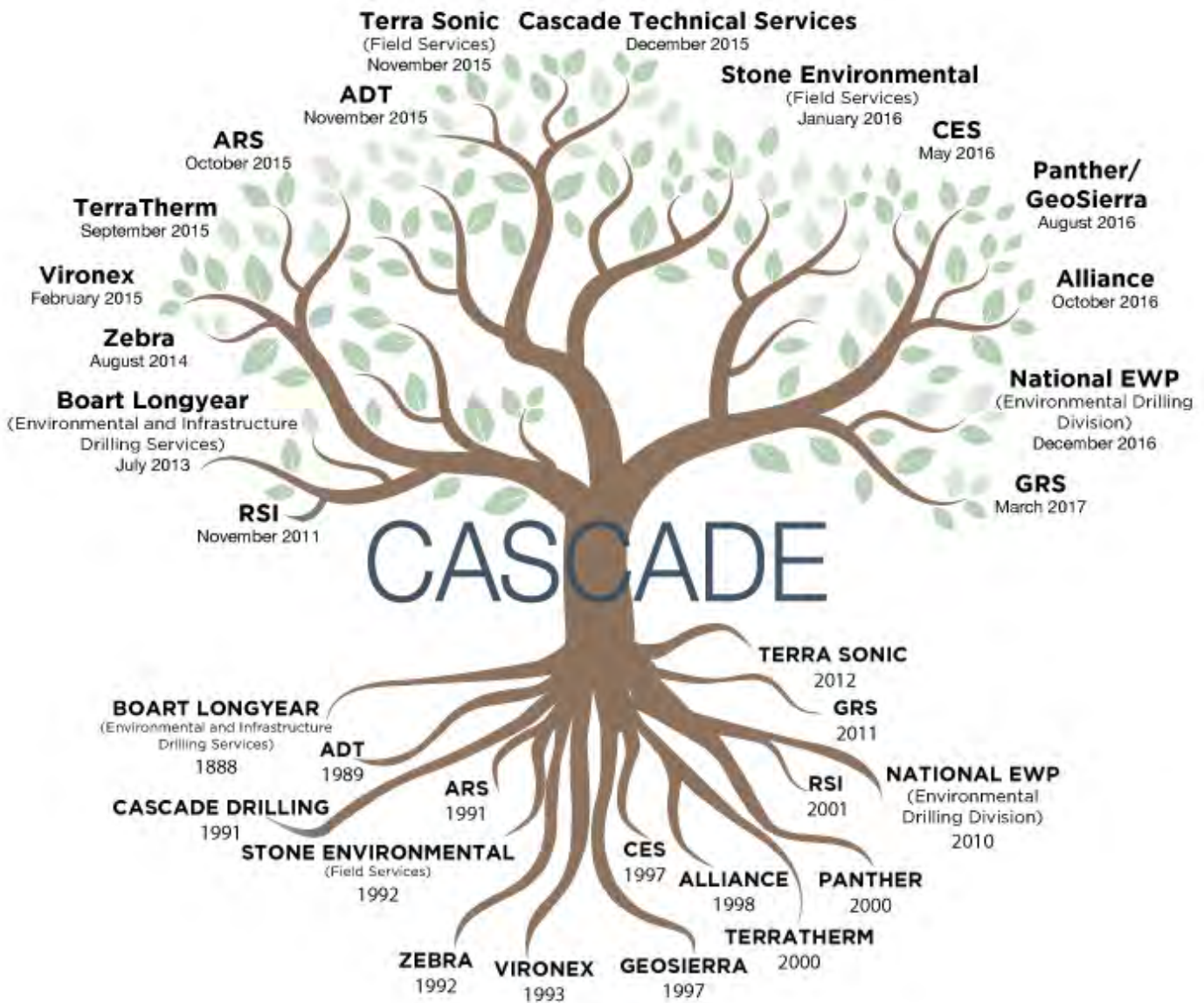
We believe in growing our business in a responsible manner through significant investment in our company, our people and our communities. Growth enables us to provide career advancement for our employees and geographical reach to best serve our clients.

### **One Cascade**

We believe in sharing equally our successes and failures. Through transparency, integrity, accountability and trust, we work together to achieve our goals.

## Cascade Brands

Cascade Drilling was founded in 1991 as a highly regarded regional drilling company operating across three states in the Pacific Northwest. Cascade developed a strong reputation for safety, service and reliability with a particular emphasis on traditional drilling technologies: auger, rotary and direct push. In 2013, the Company made a significant investment in sonic drilling technology and expanded its geographic reach across the United States. Since then, Cascade has grown through a series of strategic acquisitions that brought together the industry's renown technical experts and state of the science environmental technologies. Today, Cascade is the only provider of integrated national field services that characterize, investigate, and remediate environmentally contaminated sites.



Known in the marketplace simply as Cascade, our family of brands includes Cascade Drilling®, Cascade Technical Services®, Cascade Thermal™, Aquifer Drilling & Testing™, Panther Technologies™ and GeoSierra Environmental™. Our project teams and business development specialists work closely together to ensure our clients have access to the full suite of services and industry leading experts under one Cascade umbrella.

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**Cascade Drilling** provides a full range of environmental and geotechnical drilling services. Regardless of the lithology or location, Cascade Drilling has the right equipment, experience, and specialized expertise to do the job. We offer sonic and conventional drilling technologies. Our fleet includes track and truck mounted equipment and limited access rigs for tight spaces, low overhead conditions, and over-water work allowing us to access almost any drill site..

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**Cascade Technical Services**® focuses on subsurface investigation and remediation applications. With expertise from field technicians to PhDs, we partner with you to deliver the right technology for every job no matter how routine or complex.

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**Cascade Thermal** is a worldwide leader in the development and implementation of in situ and on-site thermal remediation of organic contaminants. We design, build and operate projects from concept to closure, using Thermal Conduction Heating (TCH), Steam Enhanced Extraction (SEE), Electrical Resistance Heating (ERH), and combinations of the technologies above.

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**Aquifer Drilling and Testing**™ (ADT) provides environmental and geotechnical drilling for a variety of applications in the greater New York City area. ADT's experienced drilling crews operate a diverse drilling fleet including sonic, auger, rotary and specialty equipment.

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**Panther Technologies**™ provides remedial services including conventional and innovative soil and groundwater remediation, hazardous and non-hazardous waste management and disposal, industrial landfill capping and lagoon closures, and mechanical system installations.

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**GeoSierra Environmental** is best known for Trenchless PRB Placement technology for installing permeable reactive barriers (PRBs). In addition to Trenchless PRBs, GeoSierra is leveraging our technology and highly specialized groundwater expertise to tackle other difficult groundwater cleanup problems such as source remediation in fractured bedrock and remediation of stagnant plumes in fat clays.

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## Suite of Services

Cascade is a field services provider that partners with our clients to provide seamless environmental and geotechnical solutions from concept to completion. We provide the industry's most comprehensive in-house suite of field services to support your geotechnical and environmental drilling, site characterization, and environmental remediation projects no matter how routine or complex.



### DRILLING

#### Services

- Environmental & Geotechnical
- Well Completion
- Investigation Derived Waste (IDW) Management

#### Technologies

- Direct Push
- Sonic Drilling
- Auger Drilling
- Rotary Drilling
- Rock Coring
- All Terrain, Limited Access



### CHARACTERIZATION

#### Services

- Discrete Soil, Groundwater & Soil Vapor Sampling
- Continuous Coring
- Direct Sensing
- High Resolution Site Characterization
- 3D Data Visualization

#### Technologies

- MIP
- HPT
- MIHPT
- UVOST®
- Temperature and EC Logging
- WaterlooAPS™
- OIP-UV/OIP-G



### REMEDIATION

#### Services

- Pre-Design Testing
- Reagent & Amendment Injection
- Thermal System Design, Build, Operation
- Combined Thermal Technology Solutions
- Soil Mixing
- Enhanced Recovery or Emplacement
- Combined Remedies
- Method Feasibility Advice

#### Technologies

- In Situ Bioremediation
- In Situ Chemical Oxidation
- Trenchless Permeable Reactive Barriers
- Electrical Resistive Heating (ERH)
- Thermal Conducting Heating (TCH)
- In Situ/In Pile Thermal Desorption (ISTD/IPTD)
- Steam Enhanced Extraction (SEE)
- Pneumatic and Hydraulic Fracturing

Experience our full range of services in less than 5 minutes: <https://youtu.be/mQFrSR7boIA>

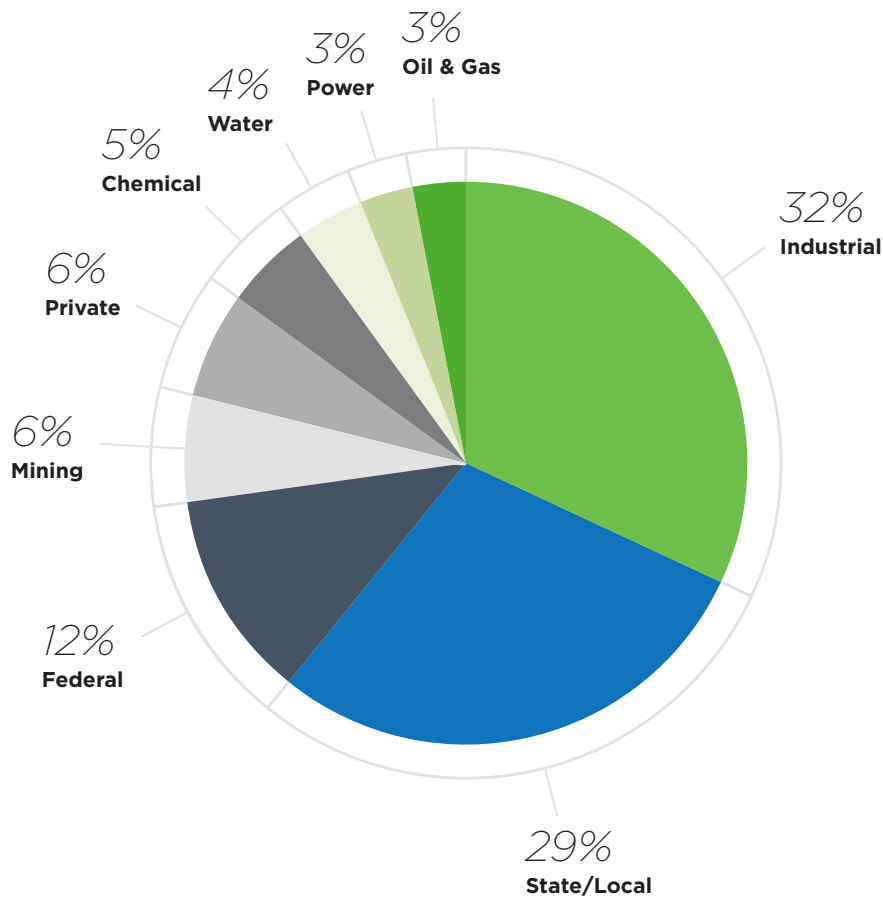
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## Our Markets

Cascade serves a diverse set of industries in the marketplace. We primarily work with consultants who hold the prime contract with the property owner or responsible party. Our clients include leading national environmental consulting firms, blue chip industrial companies, contractors, energy and utility providers and government agencies. We serve all branches of the US military, major defense contractors, port facilities and airports. Our personal service, attention to detail, exemplary safety record, and operational excellence result in long-term collaborative relationships with our clients. Most services are provided in the United States.

Country of Operations	Type of Operations	Percent of Total Revenue
United States (includes Puerto Rico)	On-site operations	>99%
Vietnam	On-site operations	<1%
Denmark, Sweden, Japan, Brazil, Canada	Licensing and royalties	<1%

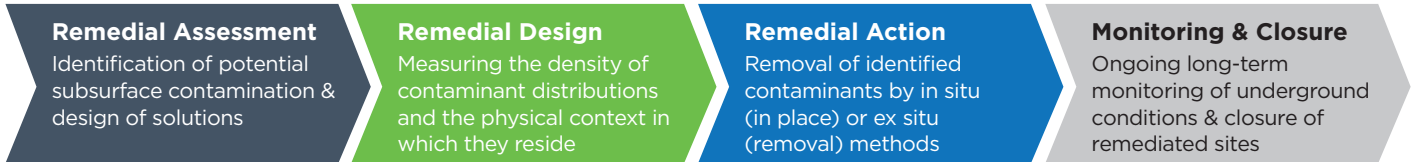
Cascade serves a diverse client base



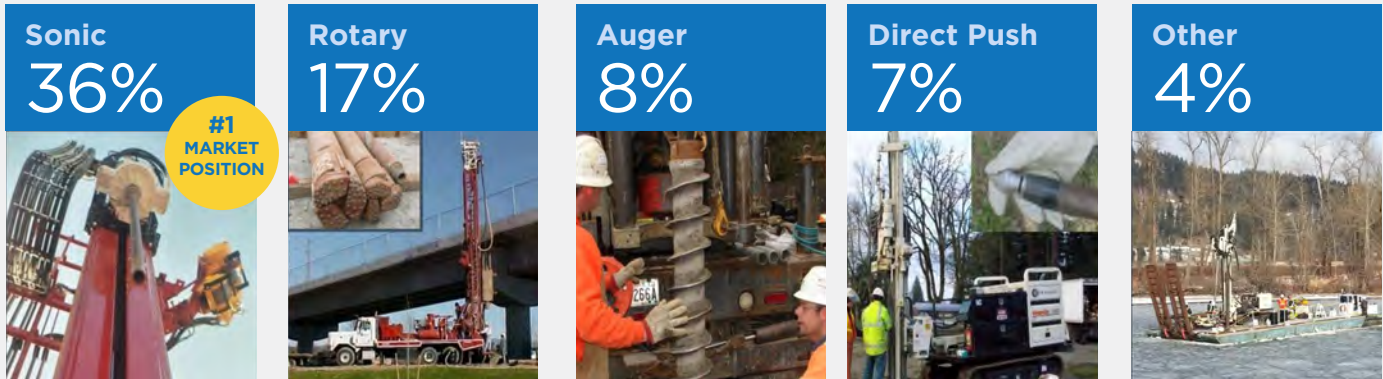


# Ability to Participate in Every Stage of the Environmental Lifecycle

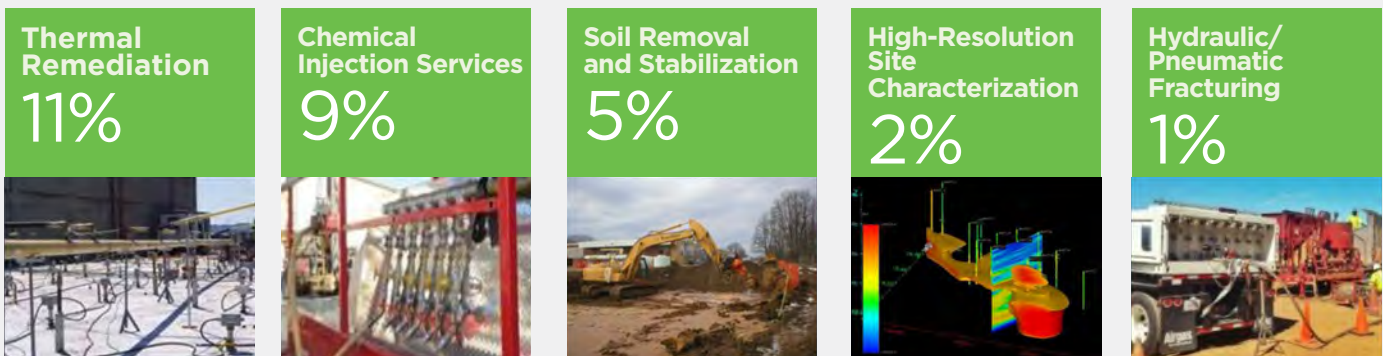
Cascade Offers a Broad Suite of Services Across the Environmental Lifecycle...



...Supported by Industry-Leading Drilling Capabilities...



...With Leading Technical Remediation Services Provided to a Loyal Customer Base



## Awards and Recognition

Cascade is recognized by well-respected organizations for our industry-leading growth and innovation. Recent awards include:

- 2019 Engineering News-Record Top 200 Environmental Firms: Ranked #56
- 2019 Environmental Business Journal Business Achievement Award for Project Merit: Dam Rehabilitation
- 2019 Outstanding Award in Occupational Safety from the Minnesota Safety Council
- 2019 National Drilling Association Outstanding Commitment to Drilling Safety
- PG&E Gold Shovel Certification
- Sustainable Contra Costa Water Quality Community Partner



PG&E reports that 64% of Gold Shovel certified contractors had a damage rate 64% less than their other blanket contractors in 2019.



2019 Cascade Sustainability Council members from left to right: Eric Rogstad, Ken Allen, Ken Moses, Sue Bruning, Bill Poupis, Jay Boland, and Eric Moskal. Not pictured: Gary Crueger, Jack Twomey, Sai Betha, Pete Larsen, and Brook King

## Governance, Ethics & Integrity

As a privately held company, Cascade is governed by a Board of Directors. The seven-member Board is comprised of Cascade's Chief Executive Officer, Chief Financial Officer and five representatives from the private equity ownership group. The Board meets quarterly to offer insight and advice to owners on critical issues facing the business.

The Compass Corporate Sustainability Program is led by Cascade's Sustainability Council. The Council operates under a shared governance model in which members have the authority to drive sustainability initiatives and are held accountable for tracking performance. Council members are formally appointed by the CEO and represent all major organizational functions. The Council meets on a regular basis to discuss the company's environmental stewardship, social responsibility and economic impact efforts with respect to the Global Reporting Initiative standards. The Sustainability Council is responsible for drafting and executing a three-year Sustainability Plan as well as assembling the Corporate Sustainability Report each year.

Cascade's incredible journey of growth and transformation is testament of our commitment to drive innovation – and our leadership team is helping make it all happen. With diverse business experience, bold vision, and a passion getting it right every time, this team focuses on delivering results to our clients, fostering a safe and positive work environment, and driving organizational growth. This year, we welcomed industry veteran Sean Fanning to the Cascade team. Sean serves as Cascade's Chief Financial Officer. Also this year, tenured leaders Ron Thalacker and Peter Palko were appointed as Executive Vice President of Operations, Drilling Services and Executive Vice President of Operations, Technical Services respectively.

**Meet our leadership at** <https://www.cascade-env.com/about-us/our-team/>

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Our employees are held to a high professional standard as detailed in Cascade’s Employee Handbook. The Handbook includes our Code of Ethics as well as employment policies, procedures, safety responsibilities, and a description of employee benefits. A copy of the Handbook is provided to all employees upon hiring. It is also available upon request through the Human Resources Department and posted to the Company’s internal website. All new employees go through comprehensive training programs unique to their job responsibilities. All employees participate in regular training updates covering key aspects of their jobs throughout the year.

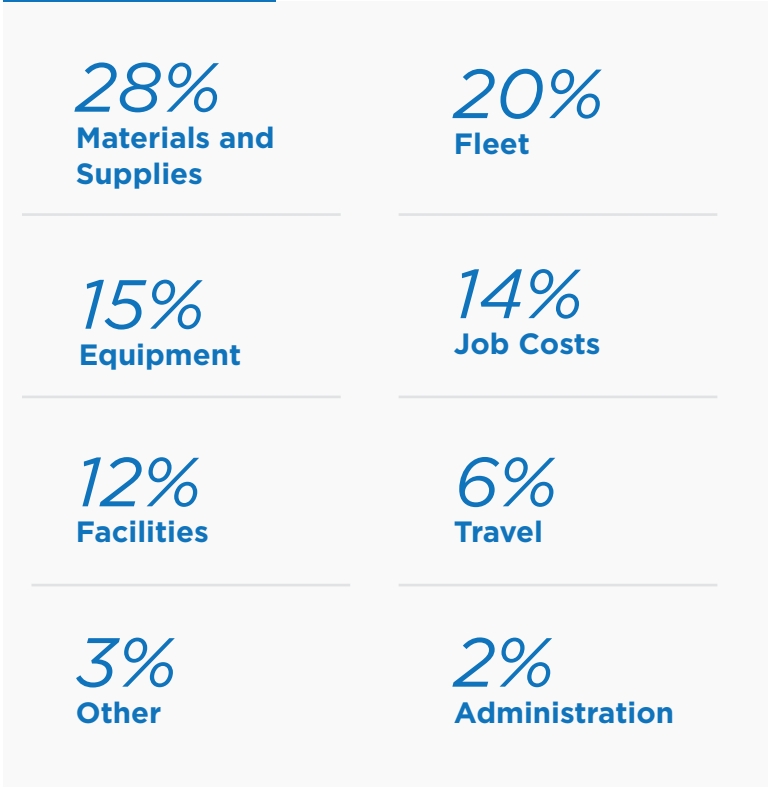
**Issues covered in the Handbook include:**

- Affirmative Action
- Americans with Disabilities & Amendments Act
- Client Relations
- Code of Ethics
- Communications Policy
- Complaint Reporting & Resolution Corrective Action
- Discriminatory Harassment
- Diversity
- Drug Free Workplace Policy
- Employment of Minors
- Equal Employment Opportunity
- Health and Safety
- Job Descriptions
- Open Door Policy
- Payment of Wages
- Performance Evaluations
- Sexual Harassment
- Social Media Policy
- Standards of Business Conduct
- Tobacco Free and Smoke Free
- Training & Development
- Violence Prevention in the Workplace
- Workplace Attire & Grooming Policy
- Workplace Harassment
- Worker Welfare

# Supply Chain

Our supply chain is comprised of the equipment, material and supplies procured to perform a wide array of drilling, characterization and remediation services as directed by our clients. It includes support services such as sales, marketing, and administration to conduct business and grow our organization.

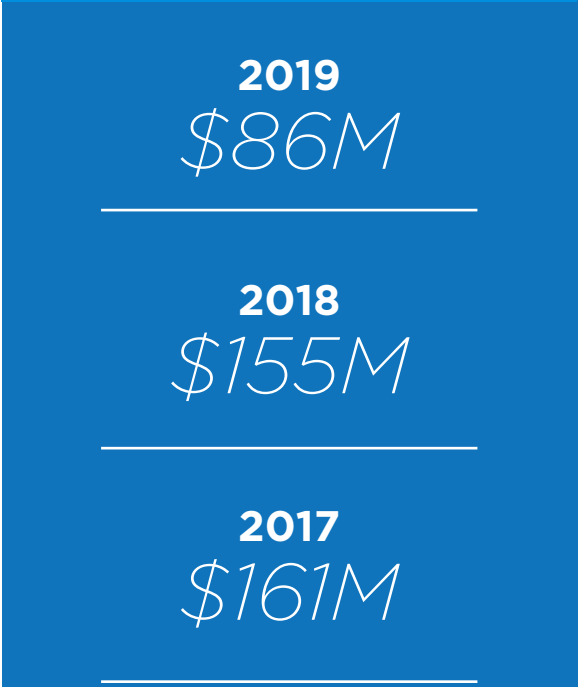
## 2019 Supply Chain Spend



## Restatement of 2018 Supply Chain Spend

	2018 Restated
Job Costs	78%
Equipment and Materials	10%
Operations and Facilities	5%
Sales & Marketing	2%
Fuel	3%
Health and Safety	1%
Administration	1%

## Total Vendor Spend



Number of vendors providing goods and services that grow our business

**2019**  
3104

**2018**  
2900

**2017**  
2500

## Sourcing Partners

Collaborative vendor partnerships are about more than getting the lowest price. By working together, our vendors help us to identify solutions that make our organization run more smoothly, achieve our business goals and maximize value for our clients. We maintain active partnerships with thousands of vendors across the United States who are classified by the product or service and geographic coverage they provide.

National vendors are capable of servicing all Cascade locations across the United States. Regional vendors are capable of servicing Cascade offices in specific multi-state geographic regions. Local vendors service a small geographic area, typically one or two Cascade offices in the same state. The types of vendors and vendor spend in this report represent our trade suppliers- those companies that provide products and services to operate our business. It does not include corporate payments, taxes, employee reimbursements, employee insurance, or benefits.

### Vender Type

	Number	Percent of Total Spend
<b>Total Number of Vendors</b>	<b>3104</b>	<b>-</b>
Preferred National Vendors	62	11%
Preferred Regional Vendors	142	6%
Preferred Local Vendors	2901	83%

### Total Spend

	2019	2018	2017	2020 Goal
Spend with certified diversity-owned business	<b>\$7.1M</b>	\$4.17M	\$3.2M	-
Percent of Spend	<b>8.2%</b>	2.7%	2.0%	5%

## Sourcing Strategy

Cascade supports a “one company, one commitment” approach to sourcing and procurement that generates overall efficiencies by location consistent with our Company vision and goals. Our collaborative vendor partnerships are crucial to the strength of our supply chain and the growth of our business.

Over the last two years, we have introduced sourcing initiatives to optimize business with our preferred suppliers and promote strategic relationships with local vendors. This strategy has proven to transition our workforce from transactional buyers to strategic purchasers by centralizing purchasing activity, educating our employees on vendor selection, and building collaborative partnerships with fewer, preferred status sourcing partners. This strategy also reduces risk in the supply chain and results in a mutually beneficial relationship with each partner. Changes in the sourcing program were based on feedback received through our stakeholder engagement efforts, a review of current sourcing practices, and extensive research on best practices for our industry.

Our sourcing efforts include detailed employee training and support resources, routine monitoring and reporting of compliance, and stakeholder feedback. We are adding capabilities in our data management systems to allow for more detailed and consistent tracking of sourcing activity including spend by vendor product category, local supplier spend, and diversity-owned business partnerships.

## Sustainable Sourcing Mission

*Our sourcing mission is to create a one company sourcing culture that allows our purchasing and payment activities to be consistently efficient by location and second nature in the best interest of our clients and our company.*

## Vendor Screening and Evaluation

Potential vendors undergo an extensive evaluation process prior to receiving approval status. The evaluation includes screening on a range of economic, social, and environmental impact issues. This process assists our sourcing department in choosing vendors who align with our sustainability goals and identifies opportunities where we can work with vendors to improve their own sustainability efforts.

Topics included in our vendor evaluation include:

- Compliance with regulations, notices of violations, fines assessed
- Conservation efforts and sustainability programs
- Financial stability
- Pricing
- Availability
- Geographic reach
- Diversity-related and small business certifications

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## Changes in our Supply Chain

The ability to respond rapidly to client needs is critical to the growth our business. Our expansive resources allow Cascade to strategically position fleet assets and experienced crews where they are needed most. We are proud to announce the opening of a new office in Macon, GA to service the environmental needs in the Southeast region. Three offices located in Northern California, metro New York City, and southern Maryland were consolidated with nearby offices to increase operational efficiencies.

### Learn more about our Macon, GA office

<https://www.cascade-env.com/locations/cascade-macon/>

➤ READ MORE ONLINE



## Memberships

Actively engaging in professional, industry, and non-profit organizations fosters the personal and professional growth of our employees. It also provides a platform to connect with our stakeholders outside of the routine business setting. We fully support these memberships and our proud of our employees who serve these organizations.

American Council of Engineering Companies  
American Exploration & Mining Association  
American Institute of Professional Geologists  
American Society of Professional Engineers  
Arizona Hydrological Society  
Association of Engineering Geologists  
Association of Environmental & Engineering Geologists  
Association of Environmental Health and Sciences  
Association of State Dam Safety Officials  
Bay Planning Coalition  
Central Pennsylvania Geotechnical Council  
Colorado Environmental Management Society  
Colorado Mining Association  
Cybersecurity and Infrastructure Security Agency (CISA)  
Elk Grove Community Emergency Response Team  
Engineering News Record  
Environmental Professionals of Arizona  
Five Towns Kiwanis  
Florida Association of Environmental Professionals  
Geologic Association of America  
Geologic Association of Nevada  
Georgia Association of Environmental Professionals  
Groundwater Resource Association  
Hudson Mohawk Professional Geologic Association  
Idaho Department of Water Resources  
Idaho Groundwater Association

Industrial Association of Contra Costa County  
Infragard  
International Risk Management Institute  
International Society of Sustainability Professionals  
LeanIn  
National Association of Environmental Professionals  
National Drilling Association  
National Ground Water Association  
Nevada Groundwater Remediation Association  
North American Tunneling Association  
Northwest Environmental Business Council  
Northwest Environmental Council  
Professional Environmental Marketing Association  
Project Management Institute  
Society for Human Resource Management  
Society Mining Engineers  
Society of American Military Engineers  
Society of Economic Geologists  
Society of Mining, Metallurgy, and Exploration  
South Florida Remediation Association  
Sustainable Remediation Forum  
Texas Association of Environmental Professionals  
Utah Geologic Association  
West Texas Geological Society  
Western States Petroleum Association  
Women in Environment

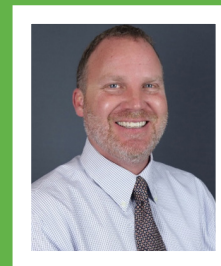
We honor those employees who hold leadership positions and volunteer their time and talent.



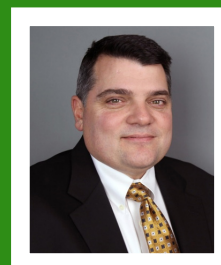
**Eric Sandberg,**  
Cascade Client Services Manager and Bay Area Chapter President of Professional Environmental Marketing Association



**Jay Boland,**  
Aquifer Drilling & Testing Client Services Manager and National Drilling Association Board of Directors member since 2013



**Pete Larsen,**  
Cascade Vice President of Operations and Bates Technical College Advisory Committee Member



**John Michael Gross,**  
Cascade CIO, Little Bit Therapeutic Riding Center Board of Trustees, and volunteer mentor for Everwise



**Darla Smith,**  
Cascade Client Services Manager and NEBC Board Member

Each month our Information Services team filters more than

500,000  
emails per month

to prevent spam, phishing, and malware and protects the Company by analyzing more than 100,000 logins per month.

## Technology

Technology touches every facet of our business. While technological developments facilitate impressive growth, this same technology poses serious risk. One of the most notable risks concerns cybersecurity, which can take numerous forms and can have very significant negative consequences for the victims. This reality makes cybersecurity a major differentiator for organizations and an essential sustainable economic development factor.

Our Information Services team has taken dramatic steps to protect our employees, our business transactions, our vendors, and our clients. We've invested more than \$1M to protect against cyber threats and improve the working environment for all employees.

**Remote Security** - We have updated our firewalls providing remote network access through a virtual private network (VPN). For security purposes, the use of the VPN is always required outside of the United States. We have also implemented a zero-trust security model that requires strict identity verification for every person and device trying to access resources on a private network, regardless of whether they are sitting within or outside of the network perimeter.

**Modern Workplace** - We have updated our operating systems to provide convenient, cloud-based computing and collaboration. These updates also provide employees many new functionalities and an improved user experience. Internal collaboration is easier than ever before and now doesn't require energy-intensive travel with on-line tools for video conferencing, chat, and voice meetings available to every employee for mobile and desktop access. We've also enhanced data compilation and analysis with new reporting tools. On-line access to view, analyze, and share data reporting has replaced hard copy printing.

**Internet Security** - Firewalls are our first line of defense. Each office has one installed and these communicate with other Cascade offices through secure means called a VPN tunnel. Each firewall and company-issued computer also contains a cloud-based security feature to verify websites.

**Out of county travel** - Any incoming data originating from outside the US is blocked as a security measure. Employees are required to report out-of-country travel in advance of departure to obtain digital access during their foreign travels.

# OUR STAKEHOLDERS

We are dedicated to leaving a positive impact on the people surrounding our business. Through extensive engagement efforts we continue to align our sustainability goals with the values and expectations of our stakeholders.

Cascade’s Sustainability Council has identified primary stakeholders as those groups meeting at least one of the following criteria:

- very likely to be impacted by our Company
- may potentially influence Company performance in a significant way
- has frequent interaction with our Company

To help us understand the issues important to our stakeholder groups, we administer an extensive stakeholder engagement campaign every three years. The most recent was conducted in October 2017 and included a social media campaign and survey. The feedback from on-going stakeholder engagement efforts are an important element in the development and implementation of our sustainability report and strategy. Cascade’s Sustainability Council analyzed the campaign data which was used as the foundation of our 2020 Corporate Sustainability Plan. We also engage in many other routine channels of on-going communication through our social media channels, website, and other open engagements like webinars, conferences, meetings, surveys, and industry-related events.

## Channels of Engagement

<p style="text-align: center;"><b>900</b> employees</p>	<p style="text-align: center;"><b>3,100</b> vendors</p>	<p style="text-align: center;"><b>39,000</b> clients</p>
<p>face-to-face daily interaction, cloud-based employee resource center with 24/7 instant access to important company information, programs and policies and support, committees, councils, open door management policy, newsletters, email, surveys, interviews, contests, training, website, social media, performance reviews, web-based meetings, CEO quarterly update, townhall meetings</p>	<p>business review meetings, website, social media, contracts, surveys, participation in committees, company meetings, sponsorship opportunities, collaborative partnerships</p>	<p>technical outreach program including webinars, local seminars and safety demonstrations, net promoter score survey, website, social media, email campaigns, advertising, newsletter, sales calls, interviews, surveys, individual meetings, social events, industry conferences, professional associations, workshops</p>

**Other stakeholder groups:** owners, Board of Directors, local communities, industry associations, prospective employees, prospective clients, trade school, colleges, and universities engaged through association memberships, speaking engagements, conferences, trade shows, technical seminars, training, meetings, conference calls, social media, website, and more.

# REPORTING WHAT MATTERS

There are many topics raised by our stakeholders, all varying in degrees of importance and relativity to our business. The topics raised by our stakeholder groups are used to determine material topics on which to focus reporting and improvement efforts.

TOPIC RAISED	GROUPED IN FOCUS AREA				RAISED BY STAKEHOLDER GROUP				RESPONSE DOCUMENTED	
	Environmental Impact	Customer Service	Fleet	Employee Experience	Communicating	Employee	Client	Vendor	Cascade	
<b>Communication</b>		✓		✓	✓	✓	✓	✓	✓	2020 Sustainability Plan, Cascade Playbook
<b>Customer Satisfaction</b>		✓					✓		✓	2020 Sustainability Plan, Net Promoter Score survey
<b>Cybersecurity</b>		✓		✓					✓	Corporate Sustainability Report, Company policies
<b>Employee Engagement</b>				✓		✓			✓	2020 Sustainability Plan, 2019 employee satisfaction survey, Cascade Playbook
<b>Energy Consumption</b>	✓		✓			✓	✓		✓	2020 Sustainability Plan, Corporate Sustainability Report
<b>Environmental Issues</b>	✓					✓	✓	✓	✓	2020 Sustainability Plan, Corporate Sustainability Report
<b>Invest in New Technologies</b>	✓	✓	✓	✓		✓	✓	✓	✓	2020 Sustainability Plan, Cascade Playbook
<b>Leadership</b>				✓		✓			✓	2020 Sustainability Plan, Cascade Playbook
<b>Operating Efficiency</b>	✓	✓	✓	✓		✓	✓		✓	2020 Sustainability Plan, Cascade Playbook
<b>Personnel</b>				✓		✓	✓		✓	2020 Sustainability Plan, Cascade Playbook
<b>Quality</b>		✓				✓	✓		✓	2020 Sustainability Plan, Cascade Playbook
<b>Regulations/Compliance</b>	✓	✓	✓			✓	✓	✓	✓	2020 Sustainability Plan, Corporate Sustainability Report, Corporate policies
<b>Safety</b>	✓	✓	✓	✓		✓	✓	✓	✓	2020 Sustainability Plan, Corporate Sustainability Report, CORE Health and Safety Program
<b>Training</b>		✓		✓	✓	✓	✓	✓	✓	2020 Sustainability Plan, Corporate Sustainability Report, Corporate Initiative
<b>Transportation</b>	✓	✓	✓			✓	✓		✓	2020 Sustainability Plan, Corporate Sustainability Report
<b>Wages and Benefits</b>				✓		✓			✓	2020 Sustainability Plan, Corporate Sustainability Report
<b>Workforce Diversity</b>				✓		✓			✓	2020 Sustainability Plan, Corporate Sustainability Report, Cascade Diverse Workforce Council

The most critical issues are organized under five key focus areas which Cascade's 2020 Sustainability specifically addresses and which we've included in this report. These issues are identified as critical because they bear a high degree of real or potential impact on our continued success or may greatly impact our stakeholders. This report presents material issues organized in our five key focus areas.

Cascade reports on the issues that have been identified as having a significant impact on our continued success or may greatly impact our stakeholders. This report presents material issues organized in our five key focus areas.



## ENVIRONMENTAL IMPACT

Manage our operations in a way that preserves natural resources and protects the environment in which we work.

**Material issues:** energy consumption and conservation, impacts on biodiversity, significant spills, environmental compliance, supply chain management



## EMPLOYEE EXPERIENCE

Increase employee engagement and become the employer of choice

**Material issues:** diversity, wages and benefits, talent acquisition, employee retention, well-being, health and safety, training and education



## CUSTOMER SERVICE

Deliver superior service every day to every client.

**Material issues:** client satisfaction



## COMMUNICATION

Advance sustainability through words and action.

**Material issues:** stakeholder engagement, reporting, internal and external communication



## FLEET

Operate the Cascade fleet of vehicles, drilling rigs and support equipment as effectively and efficiently as possible.

**Material issues:** non-environmental compliance, safety

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# MANAGEMENT APPROACH

## RELATIONSHIPS

Our business is built on relationships with our employees, our clients and our vendors. Our Corporate Sustainability Report is designed to provide transparency and insight into the way we operate our business. We believe this openness builds trust with our stakeholders and strengthens those relationships.

## BUSINESS STRATEGY

Many of our clients are searching for partners that can help them advance their own sustainability agendas. Investors are exercising more scrutiny on issues of corporate social responsibility. We believe our sustainability program differentiates us from our industry competitors and it just makes good business sense.

## IMPROVEMENT

Understanding how we measure up on the issues important to our stakeholders and our business is crucial to Cascade's long-term success. Gathering and analyzing internationally recognized metrics enables us to put the processes and policies in place to improve our overall performance.

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## General Management Approach

The members of our Sustainability Council drive individual initiatives that align with corporate sustainability goals. Data is maintained in a variety of accounting, human resources, and environmental health and safety software systems. The Council meets routinely to evaluate progress and prioritize projects competing for our limited financial and human resources.

For each material aspect discussed in the following pages, we describe why it matters and how we manage the impacts. Our stakeholder engagement efforts play a crucial role in shaping our management approach, prioritizing projects and reporting progress.

## WHY DO WE CARE?

Producing a corporate sustainability report is a resource intensive, on-going process. This report goes beyond any sales sheet or routine marketing communication.

We believe there is a significant return on investment from the reporting process as it relates to our relationships, business strategy, and continuous improvement efforts.

# PROTECTING OUR ENVIRONMENT

Our goal is to manage our operations in a way that preserves natural resources and protects the environment in which we work. We do this by monitoring fuel consumption, implementing energy conservation initiatives, executing mechanical and behavior controls to reduce environmental impacts and maintain strict compliance with environmental regulation.

## Fuel

Our fleet is the primary source of energy consumption. Our crews drove commercial motor vehicles nearly 9 million miles in 2019. We maintain more than 2,000 drill rigs, support vehicles, and specialty equipment nationwide, and recognize our fleet has a significant impact from fuel consumption to greenhouse gas emissions and worker health and safety. It is also the area in which we can have the most significant conservation impact.

GALLONS OF FUEL	Target 2020	2019	2018	2017
Diesel	1,770,000	1,381,899	1,607,240	1,432,487
Gasoline	410,000	267,989	373,709	333,043
Diesel Exhaust Fluid	4,000	3,123	3,622	3,256
<b>Total Fuel</b>	<b>2,184,000</b>	1,653,011	1,983,031	1,768,786
Projects Performed		6000	5487	6436
Fleet Assets		2033	2016	1948
Gallons per Project		275	361	275
Gallons per Fleet Asset		813	984	908

FUEL REDUCTION	2019	2018	2017
YOY by gallons	330,020	-214,245	
YOY by percent	17%	-12%	
2017-2019 by gallon	115,775		
2017-2019 by percent	7%		

We achieved a 7% absolute reduction in fuel consumption per fleet asset over the last three years while the number of fleet assets increased by 4% and the number of projects decreased by 7%. Conservation and efficiency were the focus of our fleet program in 2019 resulting in a 17% reduction in total gallons with a 1% increase in fleet size and 9% increase in number of projects performed. We expect to continue to grow our fleet without exceeding our 2020 fuel consumption goal of 2.18M gallon/year.



## Fuel Reduction Efforts

We are dedicated to reducing fuel consumption and the negative impacts it can have on people and the environment. Our field and maintenance crews continue to work diligently to increase fuel efficiency and reduce total fuel consumption.

### Current efforts include:

- Avoidance of vehicle idling when feasible
- Improved data capture of fuel purchases as we've transitioned to a single fuel supplier
- Internal fuel spending audits
- Purchase of new vehicles with more stringent fuel and emissions controls
- Evaluation of alternative fuel sources such as natural gas

By replacing 100 older, high mileage light duty trucks with 2019 model diesel pickup trucks, we have increased fuel efficiency and reduced total emissions as compared to the vehicles which were previously operated with a model year average of 2007.

In an effort to reduce the energy requirement for thermal projects, we are constantly improving our heater designs and operational methods. We have optimized our heater controls to be able to cycle energy input throughout the day, and therefore use more power in off-peak periods where the energy demand on the grid is less. Our data management system allows us to track, control and optimize the volume of extracted steam and hot water, such that the energy removed from the subsurface during operation is as low as possible. Lastly, we have developed and completed several full-scale low-temperature thermal remediation projects, where low-intensity thermal heating technology is used to stimulate enhanced bioremediation. This approach has been proven to be an effective low-energy thermal approach for remediating hydrocarbon sites to achieve the site treatment goals.



Cascade operates 300 light duty pickup trucks.



Well field during thermal conduction heating operations

# SUSTAINABLE FIELD PRACTICES



Sustainable remediation balances community goals, economic impacts, and environmental effects of remediation activities from project planning through design and implementation. Cascade works closely with environmental consultants to identify and incorporate a wide range of sustainability best practices our crews can implement in the field. We are very pleased to see that many consultants are incorporating sustainability efforts in the proposal evaluation process of their contractors.

Many of the best management practices (BMPs) from the ASTM Greener Remediation Standard are implemented at our job sites across the country. These BMPs improve workplace efficiency and limit the negative impacts our field practices have on the environment, local communities and our employees.

Category	Potential Impacts	Cascade Best Management Practices
<b>Energy, Air &amp; Climate Change</b>	<ul style="list-style-type: none"> <li>• Climate change</li> <li>• Air quality</li> <li>• Quality of life</li> <li>• Operating costs</li> <li>• Public health</li> </ul>	<ul style="list-style-type: none"> <li>• Preventative maintenance plan</li> <li>• Fuel reduction</li> <li>• Carpooling</li> <li>• No idle policy</li> <li>• Compliance with emission standards</li> <li>• Dust control &amp; mitigation</li> </ul>
<b>Natural Resources</b>	<ul style="list-style-type: none"> <li>• Water quality</li> <li>• Pollution</li> <li>• Public health and safety</li> <li>• Endangered species</li> <li>• Operating costs</li> <li>• Compliance and risk</li> </ul>	<ul style="list-style-type: none"> <li>• Water conservation</li> <li>• Spill prevention</li> <li>• Habitat protection and restoration</li> <li>• Site-specific health and safety plan</li> </ul>
<b>Waste Reduction &amp; Management</b>	<ul style="list-style-type: none"> <li>• Resource availability</li> <li>• Waste disposal</li> <li>• Pollution</li> <li>• Public health and safety</li> <li>• Operating costs</li> </ul>	<ul style="list-style-type: none"> <li>• Waste minimization</li> <li>• Electronic communication</li> <li>• IDW reduction and management</li> <li>• Waste recycling</li> <li>• Site-specific health and safety plan</li> </ul>
<b>Materials</b>	<ul style="list-style-type: none"> <li>• Resource availability</li> <li>• Access to resources</li> <li>• Local communities</li> <li>• Supply chain risk</li> <li>• Operating costs</li> </ul>	<ul style="list-style-type: none"> <li>• Environmentally preferred purchasing &amp; sustainable sourcing program</li> </ul>
<b>Community</b>	<ul style="list-style-type: none"> <li>• Quality of life</li> <li>• Air quality</li> <li>• Water quality</li> <li>• Public health and safety</li> </ul>	<ul style="list-style-type: none"> <li>• Traffic control</li> <li>• On site nuisance reduction</li> <li>• Rubber tracked track rigs minimize surface disturbance</li> <li>• Brownfield redevelopment</li> <li>• Site-specific health and safety plan</li> </ul>

## Cascade is a long-time sponsor of the Sustainable Remediation Forum (SURF).

Check out SURF's whitepaper, *Ten Years Later: The Progress and Future of Integrating Sustainable Principles, Practices, and Metrics into Remediation Projects*. The paper explores how sustainable remediation may evolve over the next 10 years and focuses on the events and drivers that can be significant in the pace of further development.

[➤ READ MORE ONLINE](#)

Cascade works with our clients to establish a site-specific work plan to avoid negative impacts to the site and surrounding communities during operations and achieve the project goals. Regardless of the type of service provided or technologies utilized, our crews implement a wide range of sustainability-based activities in the field:

- Clearing of vegetation in designated work areas to obtain access. This is done in the best way practical to minimize the amount of clearing and maintain minimal footprint through the selection of vehicles and equipment used on site
- Adhere to our comprehensive CORE Health and Safety Program
- Limit the duration of continuous shifts (10-day shifts or less)
- Mobilize regionally to reduce travel requirements and operational expenses
- Limit noisy operations to business hours
- Monitor for dust, odor, and VOC emissions
- Operate efficiently and in partnership with the community to reduce impact on community business
- Utilize onsite electricity where possible instead of generators
- Reuse daylighted amendments and groundwater instead of disposal wherever possible

## Drilling Operations

Some sustainable field practices are specific to our drilling operations. In most states, a well permit with conditions designed to prevent the escape of any contaminants and protect groundwater by mandating a casing and cementing/grouting program are required. Most importantly, having a trained well driller that knows the drilling rigs capabilities and restrictions will help to avoid any negative impacts.

Special mats can be placed in soft areas to prevent rutting or displacement of soil from large equipment, and ecofriendly drilling fluids can be utilized. Consideration is taken regarding the time of year to avoid disrupting the soil that is saturated from significant rain events or entering land during species' mating periods. Equipment is cleaned prior to arriving onsite and before leaving to prevent cross contamination.

Using direct push tooling to construct temporary or permanent wells rather than typical drilling methods wherever feasible eliminates the need for disposal of cuttings and improve efficiency of substrate delivery into discrete vertical intervals.

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## Site Characterization and Remediation Operations

Other sustainable field practices are specific to our characterization and remediation operations. The use of high resolution site characterization (HRSC) tools for site modeling, remedial design, and confirmation allows consultants to better understand contaminant distribution and target remediation to zones of contamination. These tools often reduce or eliminate the generation of investigation derived waste. This approach uses real time data for decision making which, in the end, reduces the overall project costs and produces more reliable results.

Selection and management of injection amendments is critical. There are many options for amendments when performing remediation. Bioremediation, the use of naturally occurring or injected microorganisms to break down contaminants, is often an effective and more environmentally preferred technology. In some projects, crews are able to use extracted groundwater as mixing water for the injection application. The location of injections has a significant impact on the efficacy as well. Our experienced technicians include engineering controls in the work plan to prevent the migration of contaminants. For example, amendments are injected at edges of work area before moving to hot spot. Our spill prevention plan includes precautions preventing and mitigating impacts of the daylighting of contaminated groundwater and injection chemicals.

## A remote project site in Yosemite National Park

was challenging to access due to muddy surfaces, heavily wooded areas, stream crossings, complex lithologies, and access restrictions. Protecting this habitat was of utmost importance. The combined use of track-mounted direct push technology (DPT) and HQ coring was critical to the project's success in this remote location. [Read more](#) to learn how those challenges were overcome.

 [READ MORE ONLINE](#)

## Inadequate site characterization is one of the main reasons remediation projects underperform or fail.

Although no project is guaranteed success, a solid plan for site characterization can ensure you are well informed during remediation planning about challenges your site presents—and that begins by knowing what tools and technologies you have at your disposal. Learn more about common HRSC tools and the best uses of the data collected for each to optimize remedial design and field performance in our blog [How HRSC Tools Provide Actionable Intelligence for Remediation Optimization](#).

 [READ MORE ONLINE](#)

## Chlorinated solvent contamination was identified at a former steel manufacturing

**facility.** The fractured and weathered shale bedrock complicated the remedial design. Because of the tight timeline, Cascade developed a plan to reduce the number of injection events and increase the ZVI dosage to significantly reduce contaminant mass without the use of permanent subsurface infrastructure. Learn how the full volume of delivered reagent was emplaced safely and successfully, on time and on budget <http://bit.ly/2PShVKN>.

 READ MORE ONLINE

Supply chain management is another crucial aspect. The purity of injection amendments has a direct impact on remediation performance. Purchasing from approved vendors with stringent quality standards in place ensures persulfates, permanganates, and zero valent iron amendments helps reduce the risk of ineffective injections. It is even possible to purchase amendments made from recycled metals.

Cascade Thermal recently conducted an in-depth analysis of the sustainability of our projects as it relates to materials and equipment required for operations. In the analysis, a few major elements of a typical thermal remediation project, such as the construction of the insulating vapor cover, were found to have a major environmental footprint due to the high usage of concrete in the construction process. As a result, we have shifted our typical design to utilize a different and more sustainable cover design where possible. The findings were published in an internationally recognized paper. We continue to review our thermal system designs for opportunities to optimize and reduce the impact on the environment.

## Read the complete study on the sustainability of thermal remediation

**projects,** *Optimizing the Environmental Performance of In Situ Thermal Remediation Technologies Using Life Cycle Assessment,* in *Groundwater Monitoring & Remediation*. <https://ngwa.onlinelibrary.wiley.com/doi/abs/10.1111/gwmr.12014>

 READ MORE ONLINE

## Spill Prevention

Spills are a real concern on every one of our job sites. We recognize that spills of fuel, hydraulic fluids, or chemicals may pose a serious threat to human health, safety, biodiversity, and the environment. Equipment failure poses the greatest likelihood of spills for our operations. In order to mitigate the risk of spills, our crews and maintenance staff focus first on prevention then on action.

We use several procedures to prevent spills or releases to the ground or surface water while working on project sites.

**These include but are not limited to:**

- Documented pre-shift site and equipment inspections
- Site-specific spill prevention and response plans
- Job safety analyses for spill prevention and response completed before operations commence
- Hydraulic hose inspection program to prevent leaks and broken hoses
- Secondary containment for chemicals and fuels carried in trucks, equipment and stored onsite

- Ground cover used under equipment and drill rigs to safeguard sensitive habitats and prevent contamination from spills
- Job safety analyses for refueling and equipment service to prevent spills
- Spill kits and absorbents carried on all equipment, trucks and drill rigs

We are proud to report only one significant spill in more than 23,000 completed projects. The extensive training and vigilance to the spill prevention plan played a critical role in mitigating the environmental impact of this spill. Crews reacted quickly to immediately contain the spill. All contaminated soil and product were removed and properly disposed.

	Target 2020	2019	2018	2017
Number of Significant Spills	0	0	1	0
Volume of Significant Spills	0	0	11,000 gallons of diesel fuel	0

## Environmental Compliance

Our work is governed by federal, state and local laws pertaining to worker health and safety, transportation, environmental protection and employment practices. At Cascade, we believe that simply complying with applicable laws and regulations doesn't go far enough. Our Environmental, Health and Safety (EHS) professionals take a proactive approach by preventing infractions through training, professional development, and enforcing positive behaviors. Our management team ensures employees have the right tools and equipment to perform tasks safely and efficiently.

We are proud of our exemplary compliance record: zero significant fines for non-compliance with environmental laws and regulations	Target 2020	2019	2018	2017
	Fines for noncompliance	0	0	0
	Non-monetary sanctions	0	0	0

We receive regulatory visits and inspections from federal, state, county and local regulatory agencies throughout the year. Each inspection is an opportunity to partner with local health departments, fire departments, building departments and occasionally the local air district to build long-term relationships.

Our full-time staff of health and safety, compliance, and risk management professionals collaborates with clients and employees to proactively ensure our operations are compliant with all applicable rules and regulations.

**These activities include:**

- Continued education and professional development for compliance staff
- Monitoring, analysis, and communication of new and revised regulations
- Third party support to maintain industry-leading programs

- Maintaining a comprehensive library of policies and programs to support compliance in areas of waste management, spill prevention and control, and stormwater
- Air regulations for diesel equipment are centrally managed
- Central monitoring and management of equipment for compliance at local, state, and federal levels
- Performing monthly facility inspections and compliance
- Performing daily and weekly inspections of used oil and waste area storage areas

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# SERVING OUR CLIENTS

Our goal is to deliver superior service every day to every client. This means providing a positive client experience through a seamless one-stop-shop for all on-site drilling and remediation needs. It also means helping our clients meet their own sustainability goals. The key to delivering this superior service lies in the internal collaboration across our lines of business and total integration of our policies, programs, and management systems.

## What does that mean?

- Our operations and systems are completely integrated
- Company resources are optimized to provide seamless services to our clients
- We focus on continuous improvement and investment in our people, equipment and community to ensure excellence on every level

## What does success look like to us?

- **Confidence.** Clients have confidence in our ability to provide solutions across all aspects of a project, no matter the complexity
- **Loyalty.** Clients are avid brand ambassadors that influence those around them to do business with Cascade
- **Engagement.** Clients actively participate in our CORE Health and Safety Program on site safety meetings, and other safety initiatives

## What does success look like to our clients?

- **Budget.** Projects completed within the projected budget
- **Safety.** Projects completed safely without incident or injury
- **Seamless.** Clear and seamless communication between office and field before, during, and after site operations
- **Timely.** Projects completed within the specified timeframe



Founded upon client feedback, we spent much of 2019 building a comprehensive quality program which starts with improving sales efficiency and driving continuous improvement throughout our organization from field to office.

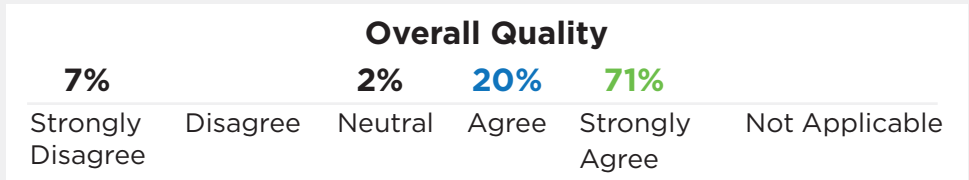
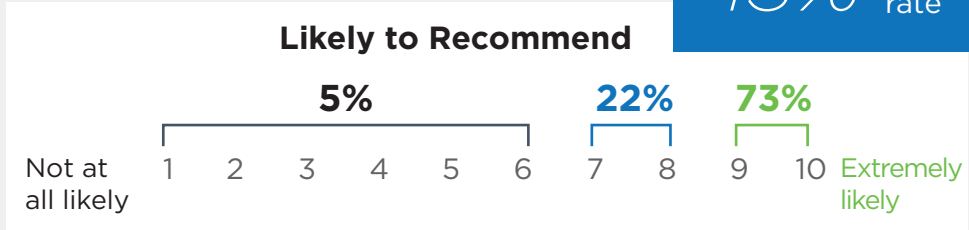
**Components of the program include:**

- Alignment of sales and marketing processes with our field operations teams including workflow, internal touchpoints, client communications, and data analysis to provide seamless customer experience across all line of business
- Refreshed and documented sales program including policies, process, and performance metrics
- Client satisfaction survey, known as the QCard, sent with every invoice and accessible on-demand
- Improved convenience and response rate to website inquires
- Alignment of our assets with market demand to keep costs down and increase capacity where clients need it most

## 2019 QCard Pilot Results

**13%** response rate

Results of our 2019 QCard pilot implementation indicates our service is on target. We look forward to a full-scale implementation in 2020.





Clients have the opportunity to interact with our subject matter experts during our monthly webinar broadcasts.

We know that helping our clients grow means we grow right along with them. This starts with understanding what drives our target audience and how they connect with Cascade. Then we offer valuable resources, technical support, and innovative approaches to help solve their challenges. Delivering valuable content helps clients do more, be better. We collaborate on innovative solutions to tackle the most challenging sites with direct access to subject matter experts in person and through a digital experience.

Educating our clients includes many hands-on experiences and field demonstrations. Our subject matter experts and client service managers often team up to provide clients with an in-depth look at how our technologies work and how technologies can be combined to achieve unparalleled results.

We help our clients succeed with innovative approaches on drilling, site characterization, and environmental remediation projects. Many of these projects have been recognized best-in-class by professional organizations.



Cascade Drilling, with the Midwest Geosciences Group, collecting samples and demonstrating sonic coring techniques as part of a workshop entitled, "Managing the Complexities and Uncertainties of Soil Sequences" in West Chester University, PA.



## **Business Achievement Award- Project Merit: Dam Rehabilitation**

Cascade Environmental successfully drilled and installed 8” PVC pilot casing at Boone Dam in northeastern Tennessee to direct the creation of a 55” flooded reverse secant pile seepage cut-off wall. After a sinkhole and muddy discharge were discovered near the base of the embankment, dam safety experts and engineers determined the structure was at risk of internal erosion and subsequent dam failure. Cascade was brought in to conduct pilot borings for a vertical and plumb guide for the advancement and construction of a secant pile wall—which had never been previously done. Sonic technology was selected for its tight verticality tolerance, and to protect the embankment during epi-karst and bedrock drilling activities. The experienced sonic drilling crew achieved nearly perfect verticality in the first hole over 56 feet of vertical drilling. Once the first casing was completed successfully, Cascade proceeded to drill 57 other locations on the project site.

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## **Business Achievement Award for Technology Merit in Remediation**

Cascade Thermal recently completed an In Situ Thermally Enhanced Bioremediation project at a Class 2 Inactive Hazardous Waste Disposal Site under NYSDEC’s State Superfund Program. The facility was historically used in the production of enamels, insulating varnishes, and other resins for coatings and adhesives.

Cascade Thermal’s Thermal Conductive Heating (TCH) heaters targeted soils impacted from ground surface to 15ft bgs and heated the treatment zone to an average temperature of 35°C, the optimal temperature for the native biota to break down site compounds as determined by bench tests performed by the consultant. Air injection wells were used to inject hot, oxygen-rich air into the subsurface, fueling the bioremediation. The majority of remediation was anticipated to occur in-situ by biodegradation. Optimizing and quantifying this mass destruction required regular monitoring of O<sub>2</sub>, CO<sub>2</sub>, and CH<sub>4</sub> at extraction locations to ensure healthy colonies in the subsurface and adjustments to local injection and extraction rates to keep the biota active.

The thermally enhanced bioremediation implemented at this site was able to successfully reduce soil concentrations of contaminants including total xylenes, ethylbenzene, toluene, and naphthalene to the NYSDEC Industrial Standards for Restricted Use soil clean up criteria and achieve client goals for the site.

## Business Achievement Awards: New Practice Areas

Cascade expanded its business to provide integrated environmental investigation, characterization and remediation services. Launched in 2016, Cascade Technical Services (CTS) works closely with the consulting community bringing innovative solutions to meet remediation objectives. The team of renowned environmental experts utilizes sophisticated data acquisition technologies for site investigation and characterization as well as a broad range of in situ and ex situ remediation technologies. CTS specializes in complex sites where remediation objectives are not expected to be achieved within a reasonable time frame and frequently require extensive resources.

In its first year, Cascade secured more than \$14.5 million in complex site projects demonstrating strong market demand for an innovative approach to complex sites. Cascade's combined remedies methodology targets areas of contaminant type and concentration with the most appropriate remediation technologies, often utilizing multiple technologies on the same project site. High resolution site characterization technologies including MiHPT and WaterlooAPS™ are used for data acquisition and conceptual site modeling. Powerful remediation technologies such as thermal conductive or electrical resistive heating are used for the source zone or highly concentrated plumes. Less aggressive remediation technologies including bioremediation, chemical oxidation, chemical reduction through pneumatic fracturing, and soil vapor extraction applied elsewhere.

### **Many more ways in which we support the sustainability efforts of our clients:**

- Providing electronic invoices to reduce paper consumption and increase accounting efficiency
- Sponsoring charitable events in partnership with our clients
- Utilizing certified diversity-owned business
- Encouraging client participation in our CORE Health and Safety Program, on site safety meetings, and other safety initiatives
- Implementing sustainable remediation practices in the field

The industry is identifying new chemicals of concern more rapidly than ever. Public perception of the negative health and environmental impacts of these contaminants, like PFAS, is driving regulation and legal action. These emerging contaminants represent potential future liabilities for clients, even on sites that were long considered remediated. These sites span the entire country and affect every one of our end markets. Our ability to offer integrated solutions for the project lifecycle means clients more easily assess the long-term impacts and performance of projects. This type of collaboration is essential to the future growth and stability of our organization.

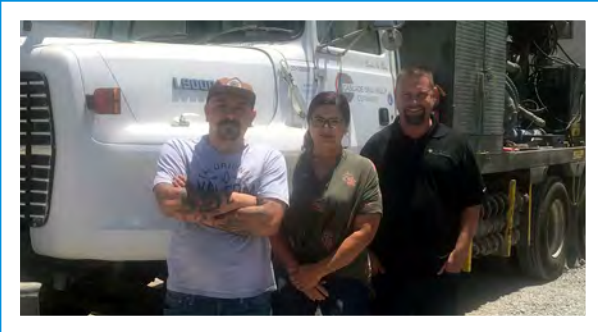
### **Over the last few years we've:**

- Added operational protocols to protect against PFAS cross-contamination on-site
- Specialized service offerings to detect and remediation emerging contaminants
- Monitored and educated clients on regulatory developments concerning the detection and remediation emerging contaminants



# Straight From Our Clients

But don't take our word for it. Here's what our clients have to say.



Pictured, L to R: Rick Alcartado, Sandra Rutledge, Ryan Lea

*"I wanted to let you know how much I appreciate your staff Rick Alcartado, Ryan Lea, Kate Kosarska, and Sandra Rutledge. We had been setting up a job for well development activities that started this week, and there have been many changes with scope and lots of new client requirements. They have been hard at work to make this as smooth as possible. They have been super responsive and easy to work with. I know this is a busy time, but they have taken all of my many emails and have responded extremely quickly. They have been amazing and it has made my life a lot easier."*



Pictured, L to R: Blake Prusky and Joe Hutchins

*"Just wanted to commend Blake Prusky and Joe Hutchins on their great work. It was tough conditions in the sun and pouring rain, but the guys trooped through it each day and were able to head off site a day early. Really appreciate their hard work and professionalism during the project. Blake is super personable and Joe is an expert in his trade. Thanks again to the Cascade team."*



Matt Pope

*"I just wanted to reach out and let you know what a phenomenal job Matt Pope did. He was timely, diligent, efficient, easy to work with, and above all, safe for the entirety of this project. In addition to the things mentioned above, Matt was extremely proactive and maintained a positive attitude while working through every issue encountered. I can't tell you how much I appreciated working with someone as safe and with such a strong level of work ethic as Matt Pope."*



Pictured, L to R: Luke Taylor and Todd Grossman

*"I would like to acknowledge the tremendous job that Todd Grossman and Luke Taylor have done for me the last two times I have worked with them. They are both timely and efficient in the work they do. Both of them are very knowledgeable in their work and always go above and beyond in their assistance to achieve the tasks and goals we have laid out. I truly enjoy working with them."*



Pictured, L to R: Nick Vosberg and Dale Duscher

### **Cascade Coins aren't just for our employees.**

EHS Regional Manager Dale Duscher recently awarded a coin to Barr's Nick Vosberg, who sprang into action when a Cascade employee had a non-work-related medical emergency on a remote project site. Not only did he call for an ambulance, but he safely transported the employee to the site entrance where the ambulance could find and meet them.

# MANAGING OUR FLEET

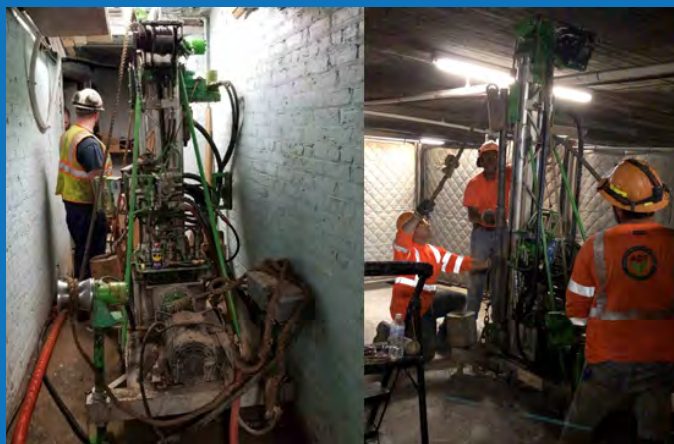


Our goal is to operate the Cascade fleet of vehicles, drilling rigs, and support equipment as effectively and efficiently as possible.

Our fleet offers one of the most substantial opportunities to embrace sustainability throughout the organization because it is truly tied to all three pillars of sustainability: social, economic, environmental. A well-maintained fleet contributes to safety and on-time, on-budget performance of every project, every day. The fleet is essential to mobilize our field crews safely, provide quality service, and drive revenue nationwide.

Fleet size has increased by a slight 1% this year and an average of 4% over last three years. The most significant increase is in the ‘other equipment’ category which includes specialty equipment for our field operations. Our fleet management team continually evaluates market demand and opportunity across the country to ensure we have the proper equipment in the right places to serve our clients.

FLEET ASSETS	2019	2018	2017
Drill Rigs	331	343	349
Support Trucks	780	788	807
Trailers	444	425	404
Other Equipment	478	502	388
Total	2033	2016	1948
YOY Increase	1%	3%	8%
3-year Increase	4%		



Fordia Explo 220 Geotechnical Drill Rig

## Our Fordia Explo 220 Geotechnical Drill Rig is an essential asset in our fleet.

Specialty equipment like this gain access to the most challenging project sites. Portable rigs are built with an aluminum frame and can be disassembled, packed into the bed of a pickup truck, taken in pieces to the site, and reassembled where drilling will occur. This sidesteps a lot of issues regarding access that would make traditional rigs unsuited for the project.

## Upgrade and Maintenance



In 2018, Cascade partnered with a third party to evaluate and report on the condition of our entire fleet. The auditing team looked at drill rigs, support equipment, and crew trucks, ranking the vehicles' condition, usage and confirming rig classification. Our management team developed an enhanced capital equipment purchase plan through this evaluation, along with additional data collected from our fleet management system. The data also provides a clearer forecast of equipment utilization. This allows us to place equipment in the regions where it is needed most thereby reducing crew mobilization and meeting market demand.

Our proprietary and highly proactive industry-leading Maintenance Advantage Program™ (MAP) integrates preventative maintenance with corporate health and safety and transportation compliance programs. This comprehensive fleet management program results in total fleet and equipment support with an emphasis on prevention.

FLEET ASSETS	
New Purchase	132
Recycled / Sold	197
Refurbished	14



New Tsi 150C sonic drill rig

## New Sonic Rig Joins Arizona Fleet

This year our Peoria, AZ office added a new Tsi 150C sonic drill to its fleet. The track mounted sonic drill is a great option for sites with restricted access, as it's able to travel across unpaved terrain, though its rubber tracks allow it to work in more sensitive locations as they will not cause damage. It also has the ability to drill up to 45 degrees off of vertical to pinpoint the target, even if there are surface obstructions.



Our Little Falls, MN location has been recognized three consecutive years for having the highest maintenance score within the Company. The scores are based on the number of preventative maintenance tasks performed, the number of federal and state DOT inspections completed, and compliance with Cascade's Maintenance Advantage Program (MAP).





More than 40 mechanics perform maintenance, repair, and refurbishment of more than 2,000 fleet assets.

**If you've worked as an environmental or geotechnical consultant long enough, you understand how quickly a problem on a project site can snowball and impact your budget and timelines.** Equipment breakdowns, in particular, can provide a special kind of frustration. The unfortunate truth is breakdowns happen, and they don't happen while rigs are sitting motionless in a yard between projects. Having a solid strategy to prevent breakdowns and minimize their impact when they do occur saves precious time, money, and stress. Preventing equipment breakdowns on a drilling site starts before the rigs arrive, carries on throughout the project, and continues after it ends. Learn more in our blog [3 Things Your Drilling Contractor Should Be Doing to Prevent Equipment Breakdowns.](#)

[↗ READ MORE ONLINE](#)

Preventative maintenance includes inspections and vehicle and equipment services. Preventative maintenance tasks are set up using guidelines provided by regulatory agencies, the original equipment manufacturer and/or historic data, age and condition of the equipment. Adhering to the program ensures equipment is maintained in a safe operating condition, helps reduce premature mechanical failures that could pose a risk to personnel and the environment, and extends the life of equipment.

To maintain the equipment and maximize the useful lifespan, Cascade manages a network of 15 maintenance and repair (M&R) shops and three refurbishment centers. The M&R shops are designed to perform preventative maintenance and small to medium class repairs. The three rebuild centers direct all large-scale restoration and refurbishment of rigs and support equipment.

Our mechanics perform routine preventative maintenance and repairs and also are responsible for the refurbishment of sonic heads and drill rigs. Many large capital projects which enhance safety and operations are completed by these talented individuals.

Equipment repair, preventative maintenance, and costs for all major assets are tracked from date of on-boarding to the date the equipment is retired through a centrally managed software database. Work orders track and provide a view of historical repairs and any needed repairs that have been reported.

## Fleet Compliance

When we take to the road, we take it seriously. Vehicle and driver compliance with U.S. Department of Transportation and other fleet related regulations is emphasized through employee training, education, programs, and policies. We measure our performance against federal ratings such as Federal Motor Carrier Safety Administration's Out of Service (OOS) rate and the U.S. Department of Transportation's BASICs scoring.

CASCADE'S OUT OF SERVICE RATE (OOS)					
	Target 2020	National Ave	2019	2018	2017
Vehicle	10%	20.7%	16.7%	14.9%	15.2%
Driver	2%	5.5%	2.6%	3%	2.9%
HazMat	0%	4.5%	0%	0%	0%

The OOS rate reflects occurrences of commercial drivers or vehicles pulled off the road and placed out of service as a result of infractions that pose an imminent hazard to safety during a roadside inspection. The driver or vehicle must remain out of service until the infraction is corrected. The lower the OOS rate, the better a company's compliance. Cascade consistently ranks better than the OOS national averages.

Our HazMat and Driver OOS rates have remained consistent over the last three years. We did experience a slight increase in Vehicle OOS from 2018-2019. The increase is primarily attributed to a much more intense emphasis on inspections at the state and local level. We are confident in our ability to reach our 2020 targets in all OOS categories.

### Action taken to improve our OOS ratings include:

- Review and update of internal programming and policies
- Routine communications to all employees on inspection and compliance activity
- Monthly dashboard on DOT compliance requirements
- Supplementing our internal maintenance and repair efforts with external support
- Consolidating all fleet-related programs to drive more awareness campaigns and accountability for compliance
- Increase level of internal auditing for compliance with all fleet-related policies

BASICs Scoring for Cascade Drilling, LP (Behavior Analysis & Safety Improvement Categories)				
	Target 2020	2019	2018	2017
Drug and Alcohol	0%	0%	0%	0%
Crash Indicator	2%	0%	5.5%	3%
Unsafe Driving	2%	10%	7%	1%
Vehicle Maintenance	25%	31%	31%	26%
Hours of Service	40%	58%	43%	37%
Driver Fitness	65%	62%	88%	NA

The Federal Motor Carrier Safety Administration uses a motor carrier's data from roadside inspections, including all safety-based violations, State-reported crashes, and the Federal Motor Carrier Census to quantify performance in the following Behavior Analysis and Safety Improvement Categories (BASICs). Percentiles from 0 to 100 are determined by comparing the BASIC measurements of the carrier to the measurements of other carriers in the peer group. A percentile of 0 indicates best possible performance and 100 indicates the worst performance.

We have reached or exceeded our 2020 target in three of the six BASICs categories. Similar to our efforts to improve OOS ratings, our compliance team is confident the Company will reach our 2020 targets. Action taken to improve our BASICs ratings include:

- Review and update of internal programming and policies
- Routine communications to all employees on inspection and compliance activity
- Monthly dashboard on DOT compliance requirements
- Supplementing our internal maintenance and repair efforts with external support
- Consolidating all fleet-related programs to drive more awareness campaigns and accountability for compliance
- Increase level of internal auditing for compliance with all fleet-related policies
- Investing in systems for better data tracking and analysis, such as a Motor Vehicle Report (MVR) monitoring service to alert the Company to BASICs compliance related issues

Approximately 25% of our fleet is based in the state of California and subject to the country's most stringent emissions standards. We are proud of our compliance record with both on-road and off-road vehicles as well as portable equipment. Our fleet management team continues to drive compliance through:

- Replacing older vehicles with new, fuel efficient and lower emission models
- Removing equipment powered by lower tiered engines
- Adhering to preventative maintenance schedules

**For more information on BASICs scoring,** visit: <https://csa.fmcsa.dot.gov/About/Measure>.

 [READ MORE ONLINE](#)



Patricia Morales, Manager of Fleet Compliance

## Fleet Compliance is a Full-Time Job

Patricia Morales has eight years of experience in fleet management and compliance. She was recently promoted to Manager of Fleet Compliance. In this position, Patricia oversees compliance for the entire fleet of more than 2,000 assets and 600 commercial driver's licenses. She supports our mechanics and field crews to ensure the Company is compliant with local, state, and federal regulations regarding transportation, emissions, and commercial drivers. Patricia is a valuable resource for the implementation of the Company's fleet and maintenance programs.



## Drilling is a family affair for the Bonds.

New hire Chris learns the sticks and follows in the footsteps of his dad Mike and uncle Don.

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# INVESTING IN OUR EMPLOYEES

Our goal is to increase employee engagement and become the employer of choice.

Our employees are our most valuable asset. Our crews and managers are some of the most experienced professionals in the industry. We strive to recruit, train, and retain employees for rewarding careers in a wide variety of professional occupations including drillers, geologists, engineers, field and laboratory scientists, apprentices, mechanics, administration, health and safety, and management. When asked what they like about their job, our employees describe the satisfaction they receive from solving new challenges on each project site. They enjoy the flexibility of travel and the diversity of skills needed to be successful.

It is our obligation to ensure a safe, healthy, and satisfying work environment for our employees. We provide many opportunities for employees to earn fair wages and advance their careers, as well as programs for our employees and their families to promote health and wellness and work-life balance. The data provided in this section is valuable for improving the entire employee experience and influences our strategy on health and safety, recruiting, retention, diversity, inclusion, and engagement.

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## Employment



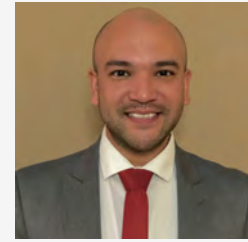
In January 2019, we took an inward look by administering an employee engagement survey. The survey focused specifically on alignment and engagement. More than half the workforce participated representing a cross section of all employee categories. These results have presented significant key findings which our leadership team has used to guide decision making on areas that have a significant impact on employee retention. Our CEO shared important findings with employees. The retention and engagement initiatives launched as a direct result of the survey process have lowered total and voluntary turnover this past year.

### Employee Recruitment and Retention

The entire environmental industry is currently facing similar recruiting issues—a shortage of skilled and semi-skilled labor, especially entry level skilled labor. We know that employee recruitment and retention rates are an indicator of employee engagement and help us understand if we are an employer of choice. In this tight labor market, a successful recruiting and retention strategy is the single most important driver of Company growth.

We've found success driving both recruitment and retention efforts through our employee referral program. The program brings high-quality candidates with an increased likelihood of retention and also rewards current employees. In 2019, 60 new hires came directly from employee referrals, nearly double that of the previous year.

It is crucial to recruit highly qualified individuals who understand the demands of our industry and are expected to thrive in the Cascade culture. This year we have focused our sourcing efforts in target-rich environments. For example, in alignment with our diversity initiatives, we've developed best practices for sourcing, contacting and recruiting veterans across the nation. We've taken the in-person and on-line approach to developing strategic partnerships with agencies and organizations that have assisted us in this initiative throughout the year. Furthermore, we are pioneering vocational school outreach as a means of generating more interest in the environmental drilling field, as well as create more opportunity for the organization to source individuals with sought after skill sets.



*"I chose to work for Cascade because I noticed the direction the Company was heading, and really wanted to be a part of that: the teamwork, the over-communication, and the fact that you know you're with a group of professionals who actually care about your well-being."*

- Rocky Tooyak, Environmental Health & Safety Manager

## Good talent can be hard to find,

and that is especially true in specialized industries like drilling, remediation, and technical services.

At Cascade, we've taken a highly proactive approach to ensure the sustainability of talent within our industry and maintain a healthy labor pool.

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### Learn how we excite potential employment candidates

through active involvement in local communities in our blog, [Partnering with Schools to Encourage Diverse Student Interest in the Field Services Industry](#)

 [READ MORE ONLINE](#)

**Our talent acquisition team has a comprehensive recruiting strategy, including:**

- Extensive “hands-on” time spent screening candidates for the local hiring managers
- Enhanced focus on employer branding through social media, website, and other outreach activities
- Increased involvement with trade and vocational schools to identify talent with highly transferable skills
- Participation in job fair outreach targeting military veterans and diversity segments
- Partnership with RecruitMilitary, the largest organization in the US for recruitment of veterans into civilian fields
- Implementation of the Cascade Hiring Policy, a formalized process for recruiting and hiring new employees with training provided to all our hiring managers
- Continuous monitoring and reporting on dashboard metrics and analytics to determine the greatest return on investment for all our recruiting efforts
- On-going evaluation of Cascade employee onboarding process to develop standardized processes addressing turnover and enhancing retention
- Outreach via Glassdoor diversity campaigns to increase brand awareness and job applications
- Increased participation in women’s organizations and associations
- Potential for in-house diversity training with hiring managers to recognize and respect diversity in employees and applicants
- Internal evaluation of career progression modeling

## 2019 New Employee Hires

In 2019, Cascade hired 275 skilled and semi-skilled positions compared to 244 in 2018, a 12.5% increase.

New Hires by Age	Under Age 30		Age 30 - 50		Age 50 +	
	#	%	#	%	#	%
Executive & Senior Management	0	0%	0	0%	4	18%
First and Mid-Level Management	0	0%	1	1%	3	4%
Professionals	1	1%	6	7%	5	5%
Technicians	0	0%	1	33%	0	0%
Sales Workers	0	0%	0	0%	2	12%
Administrative Support	3	5%	3	5%	8	15%
Craft Workers - Skilled	11	3%	27	8%	11	3%
Operatives - Semi-Skilled	113	40%	99	35%	14	5%
<b>Grand Total</b>	<b>128</b>	<b>14%</b>	<b>137</b>	<b>15%</b>	<b>47</b>	<b>5%</b>

New Hires by Gender	Females		Males	
	#	%	#	%
Executive & Senior Management	0	0%	4	18%
First and Mid-Level Management	2	3%	2	3%
Professionals	2	2%	10	11%
Technicians	0	0%	1	33%
Sales Workers	1	6%	1	6%
Administrative Support	11	20%	3	5%
Craft Workers - Skilled	1	0%	48	13%
Operatives - Semi-Skilled	3	1%	223	78%
<b>Grand Total</b>	<b>20</b>	<b>2%</b>	<b>292</b>	<b>32%</b>

Note-all percentages are relative to the total number of active employees as of 12/31/2019.

New Hires by Ethnicity	Minorities		Non-Minority	
	#	%	#	%
Executive & Senior Management	0	0%	4	18%
First and Mid-Level Management	0	0%	4	6%
Professionals	2	2%	10	11%
Technicians	1	33%	0	0%
Sales Workers	0	0%	2	12%
Administrative Support	5	9%	9	16%
Craft Workers - Skilled	15	4%	34	19%
Operatives - Semi-Skilled	82	29%	144	50%
<b>Grand Total</b>	<b>105</b>	<b>12%</b>	<b>207</b>	<b>23%</b>

Note-all percentages are relative to the total number of active employees as of 12/31/2019.

Our workforce turnover dropped over the previous year on both an aggregate basis and specifically voluntary departures. Our voluntary turnover percentage is strongly influenced by employees with less than 6 months of tenure. Based on exit surveys we understand that the nature of field services work a leading cause of turnover. Factors include:

- Extensive travel
- Time away from home
- Physical labor demands
- Working in the outdoor elements



## 2019 Employee Turnover

<b>TOTAL COMPANY</b>	309 Number of Separations	33.85% Turnover Rate	913 Average Number of Employees
<b>VOLUNTARY TERMS</b>	231 Number of Separations	25.31% Turnover Rate	
<b>INVOLUNTARY TERMS</b>	66 Number of Separations	7.23% Turnover Rate	
<b>REDUCTION IN FORCE</b>	8 Number of Separations	.88% Turnover Rate	

Turnover Demographics by Ethnicity	Minorities		Non-Minority		Females		Males	
	#	%	#	%	#	%	#	%
Executive & Senior Management	0	0%	5	23%	0	0%	5	23%
First and Mid-Level Management	2	3%	11	16%	4	6%	9	13%
Professionals	2	2%	14	15%	3	3%	13	14%
Technicians	0	0%	0	0%	0	0%	0	0%
Sales Workers	0	0%	2	12%	1	6%	1	6%
Administrative Support	7	13%	8	15%	13	24%	2	4%
Craft Workers - Skilled	24	7%	49	14%	1	0%	72	20%
Operatives - Semi-Skilled	62	22%	109	38%	1	0%	170	59%
<b>Grand Total</b>	<b>97</b>	<b>11%</b>	<b>198</b>	<b>22%</b>	<b>23</b>	<b>3%</b>	<b>272</b>	<b>30%</b>

Turnover Demographics by Age	Under Age 30		Age 30 - 50		Age 50+	
	#	%	#	%	#	%
Executive & Senior Management	0	0%	1	5%	4	18%
First and Mid-Level Management	0	0%	5	7%	8	11%
Professionals	2	2%	7	8%	7	8%
Technicians	0	0%	0	0%	0	0%
Sales Workers	0	0%	0	0%	2	12%
Administrative Support	4	7%	4	7%	7	13%
Craft Workers - Skilled	13	4%	38	11%	22	6%
Operatives - Semi-Skilled	76	27%	83	29%	12	4%
<b>Grand Total</b>	<b>95</b>	<b>11%</b>	<b>138</b>	<b>15%</b>	<b>62</b>	<b>7%</b>

Note-all percentages are relative to the total number of active employees as of 12/31/2019.

**Our human resources team has placed intense efforts on retention this year including:**

- Career pathing to ensure employees understand and leverage growth opportunities within the Company
- Management training to ensure our supervisors have the resources and skills to foster professional development
- Performance recognition for employee milestones, safety, customer service, and internal collaboration
- Work-life balance so employees may experience better overall health—physically, mentally, and emotionally

**We asked employees why they stay at Cascade.**



**Our Houston Office Manager Caroline Lard responded:**

“The integrity of the people and the Company. My bosses are great to work with, they let me know they appreciate my efforts. The field employees are a wonderful group of hard-working guys.”

## Benefits and Compensation

Environmental services companies like Cascade are faced with significant hurdles in recruiting and retaining a talented and diverse workforce, and this challenge won't dissipate any time soon. One area where organizations can stand out to potential candidates is in their benefits package. Our proactive approach in evaluating current benefits programs including direct feedback from employment candidates and current employees ensure has resulted in a comprehensive benefits and compensation program that appeals our workforce.

It is important to note that under the Company's Equal Employment Opportunity (EEO) policy, Cascade does not discriminate when making employment decisions including hiring, promotion, compensation, and benefits. The Company looks at many factors when making salary decisions. These include, but are not limited to performance, experience, and tenure. The sustainability reporting process has helped us identify gender wage gaps in certain job categories this year. Factors impacting the discrepancy include:

- Turnover of tenured, higher-salary employees
- Higher proportion of entry-level new hires with less experience
- Low number of females in each job category causes a dramatic shift percentage
- Lack of a formal salary increase program
- Some female employees transitioned from full time to part time status
- Change in sales compensation structure to a lower base salary with greater commission potential

We are committed to closing the salary gap. While the environmental services industry struggles with female representation in the workforce in general, our human resources team is implementing measures to address this issue in our organization.

- A new formal process for annual salary review and increase is planned for 2020
- Continue to offer career advancement opportunities for our female employees. Two females were promoted to Vice President positions in 2019

### Gender-Salary Comparison

Female Basic Salary as % of Male	2019	2018
Average of all categories	91%	101%
Executive & Senior Management	71%	Not Applicable*
First and Mid-Level Management	83%	90%
Professionals	85%	89%
Technicians	Not Applicable*	Not Applicable*
Sales Workers	104%	118%
Administrative Support	105%	117%
Craft Workers - Skilled	66%	Not Applicable*
Operatives - Semi-Skilled	120%	90%

\*Not applicable indicates these are roles where there were no female representation in 2019

We know that competitive wages and benefits are essential in attracting quality talent but more importantly, we understand the role they play an employee’s quality of life and personal investment in our organization. The Company pays nearly double the required minimum wage for all positions in all locations. The table below looks at the salaries for employees hired in 2019 compared to the federal minimum wage which in 2019 was \$7.25/hr. The Company defines entry level position as those positions that do not require a college degree, or specialized skills or training. The range in salary within job categories is impacted by:

- Geographic location: competitive wages vary significantly across geographic labor markets
- Employee experience: tenure with the Company, industry experience, and individual skill level are impact an individual’s salary potential
- Employee turnover: positions vacated by tenured, high level salary employees are often filled with entry-level or lesser experienced employees in today’s tight labor market

Employee Salaries as Percentage of Federal Minimum Wage	Lowest Salary Paid		Average Salary Paid		Highest Salary Paid	
	Female	Male	Female	Male	Female	Male
Administrative Assistant	234%	221%	281%	221%	331%	221%
Driller Assistant	210%	193%	263%	251%	315%	444%
Field Assistant	234%	207%	248%	254%	248%	345%
Laborer	NA*	234%	NA*	296%	NA*	345%
Shop Helper	NA*	193%	NA*	200%	NA*	207%
<b>Average of all Entry-Level Positions</b>	<b>210%</b>	<b>193%</b>	<b>272%</b>	<b>252%</b>	<b>331%</b>	<b>444%</b>

\*Not applicable indicates these are roles where there was no representation

## Affordable and Convenient Access to Benefits

Cascade offered two new exciting employee benefits in 2019 for convenient access to healthcare and free retirement planning support.

- For employees enrolled in our medical plans, we implemented a new text-based on-demand diagnosis and treatment. This service provides 24/7 nationwide access with no or minimal cost. High-quality medical care is provided by board-certified physicians making healthcare more accessible and affordable for all patients. This is especially important for our employees with challenging travel schedules, often away from home for weeks at a time.
- For employees enrolled in our 401(k) plan, we now offer independent retirement advice at no cost to employees. Certified Financial Planners offer guidance on preparing for retirement, selecting the right investments, and answers to retirement plan-related questions.

A functional, personalized benefits program should accommodate individual interests and goals in all aspects, ranging from financial planning to healthcare. The return on investment for organizations is higher employee retention and likely increases in employee performance.

### **We offer a competitive benefits package to full-time employees, including:**

- Accidental death & dismemberment insurance
- Bereavement leave
- Civic leave (jury duty)
- Dental insurance
- Direct deposit
- Educational and license assistance
- Flexible Spending Accounts
- Health savings account (HSA) with employer contribution
- Life insurance
- Short- and long-term disability insurance
- Maternity/Paternity leave
- Medical insurance
- Medical leave
- Military leave
- Paid vacation and paid sick leave
- 401(k) retirement plan with Company match
- Vision insurance
- Workers compensation

We are excited to see a 19% increase in the number of employees participating in Company-sponsored healthcare benefits. Each year our Benefits Administration team works closely with the benefits providers to educate employees about all the options available, with a number of review sessions during the open enrollment period. Resources are available to employees year-round explaining available benefits and how to take advantage of them.

In 2019, we changed the contribution strategy for HSA contributions. In 2018, 50% of the contribution was based on employee's providing bio-metric data. In 2019, this requirement was eliminated. Over the same time period we experienced a 42% increase in employer HSA contributions. That means employees are better prepared for unexpected medical expenses and are taking advantage of the tax-saving benefits of the HSA program.

<b>Employee Participation in Healthcare Benefits</b>	<b>2019</b>	<b>2018</b>
Number of employees covered under our health insurance program	843	674
Percentage of employees covered under our health insurance program	93%	74%
Total employer Health Savings Account contributions	\$459.7K	\$324.7K

Many of the benefits offered are intended to promote worker health and well-being outside of the occupational setting. We offer a comprehensive Wellness Program for employees on a voluntary basis. Employees are encouraged to utilize preventative healthcare and annual well-visits. They also have access to deals and discounts on things such as: fitness centers, alternative medicine, child safety, meal planning, entertainment, travel, and vacations. In 2019, by participating in the program, employees received an incentive to maximize optimal health outcomes.

We also offer a free and confidential Employee Assistance Program (EAP) to help employees and their dependents living in the same household be the best they can be. They can access this service 24/7. The EAP assists with a variety of mental health issues, relationship problems, parenting concerns, caring for aging parents, drug and alcohol issues, grief, and more.

When a member of the family is sick, the last thing an employee needs to be concerned about is understanding the Explanation of Benefits as they roll in. That is why we provide a Care Navigator, which is a personal service to help employees better navigate the healthcare system. The Care Navigator is there to explain confusing healthcare lingo, help the employee compare healthcare costs, and answer any detailed questions they may have about how specific healthcare services are covered by the plan.

<b>Employee 401(k) Retirement Participation</b>	<b>2019</b>	<b>2018</b>
Average employee deferral	6.1%	6.07%
Total employer contribution	\$699.0K	\$558.8K
Total 401(k) plan assets for 401(k)	\$35.9M	\$29.5M
Total 401(k) employee contributions	\$4M	\$4M
Employee participation in 401(k) retirement plan	96%	96.4%

Retirement benefits are a valued component of our overall benefit package. We offer a 401(k) plan to help employees build a secure financial future by providing a tax advantaged retirement savings plan. In response to employee feedback, we enhanced 2019 benefits with an increased match of 25% on the first 6% the employee contributes and eliminated the matching cap.

We are pleased with the level of employee participation in the 401(k) plan which has remained steady over the last two years. Our automatic deferral plan is a simple, convenient option for employees to take advantage of the tax-savings available and build a nest egg for their retirement. Our Benefits Administration team and Plan sponsor plan to make additional education and support resources available in the upcoming year in an effort to increase employee contributions.

Offering parental leave to those with newborn babies, newly adopted, and newly fostered children promotes parent-child bonding, improves outcomes for children, and even increases gender equity at home and in the workplace. We are proud to support the parents in our workforce with parental leave benefits to ensure they have ample time to adjust to these major life changes without concern for their careers with Cascade.

Employee Participation in Parental Leave Benefits	2019	2018
Total employees entitled to parental leave:	903	903
Male employees entitled to parental leave:	812	809
Female employees entitled to parental leave:	91	94
Total number of employees that took parental leave	6	2
Male employees that took parental leave	2	Did not track
Female employees that took parental leave	4	2
Total number of employees that returned to work in the reporting period after parental leave ended	5	2
Male employees that returned to work in the reporting period after parental leave ended	1	Did not track
Female employees that returned to work in the reporting period after parental leave ended	4	2
Total number of employees that returned to work after parental leave ended that were still employed 12 months after their return to work	5	2
Male employees that returned to work after parental leave ended that were still employed 12 months after their return to work	1	Did not track
Female employees that returned to work after parental leave ended that were still employed 12 months after their return to work	4	2

This is the first year we are tracking parental leave for male employees. This effort is a direct result of utilizing the GRI framework for sustainability reporting. We have also focused more effort in supporting employees for their return from parental leave. Because each family situation is unique, we work with employees on a personal basis to ensure a smooth transition into the workplace. We offer employees:

- Part-time or job share options
- Private rooms for nursing mothers
- Employee Assistance Program to provide support and resources for challenges ranging from marriage, family and postpartum issues to depression, anxiety, legal and financial difficulties.



# Diversity

Diversity is one of our core values. We proudly celebrate diversity throughout the organization and are highly committed to promoting a working environment where individual differences are respected, valued, and embraced. We believe that by celebrating our differences, our organization is more strongly positioned to maintain an industry leadership position through our most valuable resource, our workforce.

## Workforce Profile

Total Workforce by Gender	Male	Female	Total
<b>2019</b>	<b>812</b>	<b>92</b>	<b>904</b>
2018	814	95	909
2017	896	97	993

Total Workforce by Contract Type	2019
Permanent, Full Time	<b>99%</b>
Temporary, Subcontract	<b>1%</b>

Total Workforce by Collective Bargaining	2019	2018
Non-Union	<b>92%</b>	93%
Union	<b>8%</b>	7%

Total Workforce Diversity by Gender	Target 2020	2019	2018	2017
Female	15%	<b>10%</b>	10%	10%
Male	85%	<b>90%</b>	90%	90%

Total Workforce Diversity by Age	2019	2018	2017
Under 30 years old	<b>18%</b>	18%	21%
30 - 50 years old	<b>50%</b>	50%	51%
Over 50 years old	<b>32%</b>	32%	28%

Total Workforce Diversity by Minority Status	Target 2020	2019	2018	2017
Minorities	28%	<b>24%</b>	24%	23%
Non-minorities	72%	<b>76%</b>	76%	77%

Total Workforce Diversity by Veteran Status	Target 2020	2019	2018	2017
Veterans Status	7%	<b>3%</b>	3%	3%
Non-Veterans	93%	<b>97%</b>	97%	97%

Total Workforce Diversity by Job Type and Gender	Target 2020		2019		2018		2017	
	Female	Male	Female	Male	Female	Male	Female	Male
Executive & Senior Management	20%	80%	<b>9%</b>	<b>91%</b>	0%	100%	0%	100%
First and Mid-Level Management	20%	80%	<b>19%</b>	<b>81%</b>	15%	85%	14%	86%
Professionals	30%	70%	<b>22%</b>	<b>78%</b>	27%	73%	24%	76%
Technicians	0%	100%	<b>0%</b>	<b>100%</b>	0%	100%	0%	100%
Sales Workers	25%	75%	<b>18%</b>	<b>82%</b>	20%	80%	23%	77%
Administrative Support	95%	5%	<b>91%</b>	<b>9%</b>	95%	5%	91%	9%
Craft Workers - Skilled	2%	98%	<b>0%</b>	<b>100%</b>	0%	100%	0%	100%
Operatives - Semi-Skilled	4%	96%	<b>1%</b>	<b>99%</b>	<1%	>99%	<1%	>99%

Total Workforce Diversity by Job Type and Age	2019			2018			2017		
	Under 30 years old	30-50 years old	Over 50 years old	Under 30 years old	30-50 years old	Over 50 years old	Under 30 years old	30-50 years old	Over 50 years old
Executive & Senior Management	<b>0%</b>	<b>23%</b>	<b>77%</b>	0%	21%	79%	0%	48%	52%
First and Mid-Level Management	<b>0%</b>	<b>57%</b>	<b>43%</b>	0%	53%	47%	0%	50%	50%
Professionals	<b>9%</b>	<b>51%</b>	<b>40%</b>	11%	50%	39%	10%	56%	34%
Technicians	<b>0%</b>	<b>67%</b>	<b>33%</b>	50%	0%	50%	56%	38%	6%
Sales Workers	<b>0%</b>	<b>47%</b>	<b>53%</b>	0%	53%	47%	0%	50%	50%
Administrative Support	<b>16%</b>	<b>33%</b>	<b>51%</b>	19%	42%	39%	20%	52%*	28%*
Craft Workers - Skilled	<b>9%</b>	<b>54%</b>	<b>37%</b>	9%	56%	35%*	7%	62%	31%
Operatives - Semi-Skilled	<b>39%</b>	<b>48%</b>	<b>13%</b>	39%*	46%	15%	37%	47%	16%

Total Workforce Diversity by Job Type and Minority Status	2020 Target		2019		2018		2017	
	Minorities	Non-Minorities	Minorities	Non-Minorities	Minorities	Non-Minorities	Minorities	Non-Minorities
Executive & Senior Management	15%	85%	<b>0%</b>	<b>100%</b>	0%	100%	0%	100%
First and Mid-Level Management	15%	85%	<b>9%</b>	<b>91%</b>	10%	90%	10%	90%
Professionals	20%	80%	<b>19%</b>	<b>81%</b>	17%	83%	13%	87%
Technicians	0%	100%	<b>33%</b>	<b>67%</b>	0%	100%	0%	100%
Sales Workers	15%	85%	<b>12%</b>	<b>88%</b>	13%	87%	8%	92%
Administrative Support	30%	70%	<b>22%</b>	<b>78%</b>	26%	74%	34%	66%
Craft Workers - Skilled	25%	75%	<b>24%</b>	<b>76%</b>	23%	77%	23%	77%
Operatives - Semi-Skilled	40%	60%	<b>33%</b>	<b>67%</b>	34%	66%	32%	68%

\*restatement of data from the 2018 report.

There are many industries where finding skilled professionals is difficult, but the drilling and environmental services industry is one of the hardest. If we don't recruit and build up an inclusive workforce, we are limiting the talent pool and growth needed to maintain a sustainable workforce in the next 10 years and beyond.

Over the last three years, the mix of our workforce in terms of gender, age group, minority status, and veteran status has remained relatively steady. It will be challenging to meet our 2020 targets in most job categories without executive and senior management embracing the value of a diverse workforce and taking direct steps to recruit, hire, and promote across diversity and job categories.

It's no secret that most field-level employees within the environmental and geotechnical drilling and field services industries are men. At Cascade, we've identified and implemented three crucial steps towards changing the perception of our industry from one that is dominated by men to one that is open and inviting to talented men and women of all races and backgrounds.

The first, and often most difficult, challenge with tackling this subject is identifying and overcoming internal stereotypes and unconscious biases that may exist. Whether or not we'd like to admit it, everyone possesses stereotypes or unconscious biases of some form. When identified and made aware of such biases, it's very possible to prevent them from interfering with or influencing our hiring decisions.

The second step in our diversity strategy is to ensure our current culture and environment is conducive to female and minority employees. While that is somewhat of a bold and broad statement, there are definite steps that can be

taken to achieve this goal. Once our current organizational climate is evaluated, we can identify areas for improvement. While this process involves some heavy data gathering, tracking, and evaluation, the end result can be game-changing.

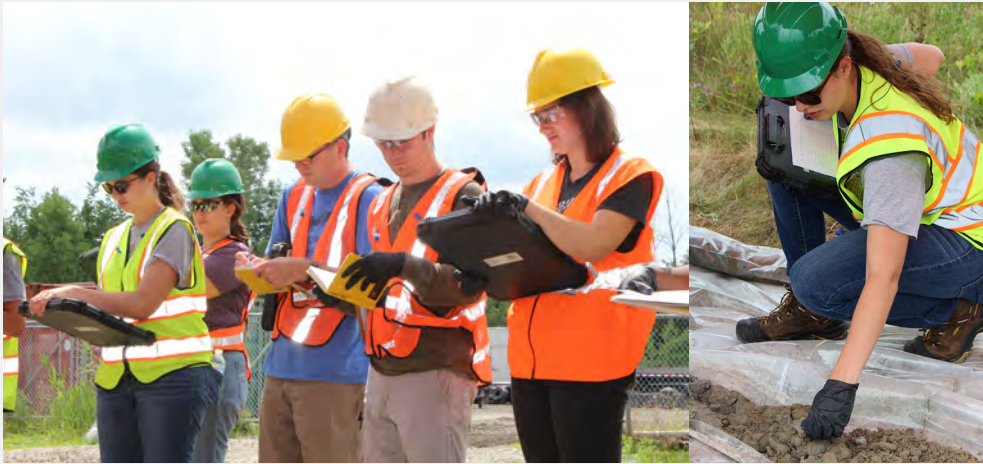
In a male-dominated industry like ours, it's important to take the data obtained through this line of questioning and create an environment that provides what women want and need from their employer. We cannot target females and generate their interest in our field if we don't first seek to understand the unique differences in what men and women value at work.

The third step is creating a detailed profile of the ideal candidate for each job category. Our talent acquisition team then finds engaging ways in which to target those candidates keeping in mind diversity and our goal of encouraging more women to apply.

One method for targeting female field employees is to get involved with local and national women's associations. Some associations that may be of particular interest to the drilling industry include the National Association of Women in Construction (NAWIC), The Society of Women Environmental Professionals (SWEPE), and the Institute of Electrical and Electronics Engineers (IEEE).

Aside from targeting, our talent acquisition team has developed strategic partnerships with various trade schools and vocational programs to provide internships and career opportunities for non-traditional students. Through these partnerships, we have a unique opportunity to secure a steady stream of new applicants, while also providing true value to our partner schools (a strong potential career opportunity that awaits students upon program completion).

Through our many demonstrations, job fairs, and school events, we are able to showcase the women in our organization that have the opportunity to work on amazing projects and propel their careers forward. Our hope is that through these efforts, we not only encourage women already enrolled in these vocational programs to consider careers at Cascade, but also encourage women who aren't enrolled in these programs to enroll and enter a skilled trade field.



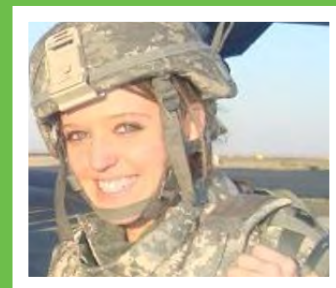
Our talent acquisition team has developed strategic partnerships with various trade schools and vocational programs to provide internships and career opportunities for students.

Cascade targets minority groups through proactive outreach and hiring in our local communities. In the past year, our talent acquisition team has made significant strides in our veteran recruiting program, increasing our veteran hires by 53%. From 2018 to 2019, Cascade has increased minority hires by 19%. The Cascade Diverse Workforce Initiative (CDWI) works closely with our Human Resources department to track these changes year over year and ensure our hiring practices are reflective of our diversity and inclusion goals.

## A Diverse Workforce Helps Employees Feel Welcome

“Cascade is a company in which I feel at home, an organization that truly values the diverse experiences of its employees – this especially includes veteran employees. What I’ve found truly enlightening is Cascade’s commitment and continued effort towards recruiting veterans. Not only does Cascade make every effort to recruit veterans, but they’ve hired a female veteran to coordinate and drive these efforts”

– Jessica Alexander,  
Director of Talent Acquisition



Jessica Alexander is a United States Air Force veteran who served from 2006 - 2015



## Cascade Core Value of Diversity

“We believe that diversity is a key component to our Company’s success and sustainability into the future”



Ken Moses, Chief People Officer

The Cascade Diverse Workforce Initiative (CDWI) was established by a group of employees who lead, advocate for, coordinate, inform, and monitor the Strategic Diversity Management process at Cascade. The CDWI council makes a continuous and dedicated effort towards ensuring Cascade lives up to our core value of diversity.

The objective of the CDWI is to provide a diverse workplace for our employees to thrive both personally and professionally. The council works closely with Cascade’s Human Resources department to monitor applicant, hiring, and candidate demographic trends. Further, the CDWI collaborates with Cascade’s marketing department to ensure our outreach and branding strategies are aligned to achieve diversity initiatives.

### **The CDWI’s goals are centered around three main areas:**

- Increasing involvement and membership of our current employee base in our diversity and inclusion efforts
- Enhancing Cascade’s diversity profile in all marketing and recruitment-based advertising
- Focusing on education, particularly in the development and implementation of diversity-focused training for Cascade employees and strategic leaders

As a federal subcontractor, the Company has certain affirmative action requirements and obligations regarding females, minorities, individuals with disabilities and veterans. The Company takes specific affirmative actions to ensure equal employment opportunities in recruitment, training, policies and record-keeping. The Company creates annual affirmative action goals. Compliance is measured by the Company's good faith efforts to achieve the results. Our number one goal in implementing an affirmative action plan is to encourage and maintain a diverse work environment.

Seven percent (7%) of our total workforce are union employees. This segment is based in our Mineola, NY office and services the greater New York City (NYC) metropolitan area. A new collective bargaining agreement was approved and ratified in 2019. This union force allows Cascade and our clients to meet the requirements of city and state agency projects. It also allows us to work in harmony with other trades on larger union projects throughout NYC.

## Health and Safety



At Cascade, every day begins and ends with safety in mind. Our CORE™ Health and Safety Program empowers every employee with their personal safety and the safety of everyone in the organization. CORE is a behavior-based program focused on incident prevention. In essence, CORE was implemented to ensure Cascade employees are safe every day and all potential risks are eliminated. Through this program, employees receive extensive classroom and on-the-job training in health and safety, compliance and risk, inspections and audits, communication, and incident investigation, along with all (7) elements of the CORE Health and Safety Program. In addition, the Cascade Injury and Illness Prevention Plan (IIPP) was constructed to ensure our employees are compliant with OSHA 1910.120 Hazardous Waste Training requirements. CORE is audited on an annual basis to evaluate trends, performance, and opportunities for improvement.

### CORE is designed to:

1. Focus on the prevention of work-related incidents through enhanced training
2. Create a measurable behavior-based, self-sustaining safety culture that is easily articulated and comprehended
3. Assign specific responsibilities at all levels throughout the Company
4. Develop a risk assessment skill in all safety sensitive employees that empowers them to effectively mitigate recognizable hazards that may exist in the workplace



Cascade's comprehensive CORE program addresses specific job-related risk factors identified through audits, evaluations, and professional hazard assessments to determine the risk associated with the work performed and periodic incident trend analysis.

- Air monitoring
- Barricades and signs
- Biological hazards
- Cold/heat stress
- Confined space
- Cranes and rigging
- Daily safety meeting
- Emergency response
- Energy isolation
- Ergonomics
- Excavations
- Fall protection
- Fire prevention
- First aid
- Hazard communication
- Hazard recognition
- Hazardous substances
- Hearing conservation
- Health and safety plans
- Illumination
- Incident reporting
- Material handling
- Medical surveillance
- Protective equipment
- Proximity to utilities
- Record keeping
- Respiratory protection
- Severe weather
- Spill prevention
- Substance abuse
- Tool selection
- Transportation compliance
- Ventilation
- Welding & hot work
- Working near water

Our operations and field crews perform a wide range of drilling and field service tasks every day. The services that Cascade provides fall under the OSHA 1910.120 HAZWOPER regulation. Additionally, all Cascade employees regardless of whether they work in the field, shop, or office are required to follow the guidelines in the IIPP and CORE. Any subcontractor working for Cascade would also be expected to comply with the Cascade IIPP and CORE Health and Safety Program.

## Safety is the Foundation of Success in Long-Term Projects

A client working on a complex long-term remediation project brought in Cascade to assist with soil sampling and monitoring well installation. After three years and 12,000 man-hours, the crew has not had a single reportable safety incident. Read the project highlight to learn how they accomplished this. <http://bit.ly/2Xv74HH>

 READ MORE ONLINE



# Hazard Identification, Risk Assessment, and Incident Investigation

Safety is our number one priority and we have a world-class program to prove it. A comparative analysis of ten award-winning organizations identified seven common best practices within world-class safety programs. Our CORE program includes all seven of these elements.

WORLD CLASS PROGRAM ELEMENTS	CASCADE'S CORE ELEMENTS
Training	➔ <b>Element 1.0</b> Training
Safety Systems & Hazard Recognition	➔ <b>Element 2.0</b> Compliance & Risk
Performance Measurement	➔ <b>Element 3.0</b> Inspection & Audits
Communication Strategy	➔ <b>Element 4.0</b> Communication
Employee Recognition	➔ <b>Element 5.0</b> Recognition & Accountability
Management Commitment	➔ <b>Element 6.0</b> Management Involvement
Causal Analysis & Corrective Action	➔ <b>Element 7.0</b> Incident Investigation

All employees are trained on the CORE Health and Safety Program elements with particular emphasis on the effective use of the CORE program tools in the field. We use world-class risk assessment tools to identify work-related hazards and assess risks on a routine and non-routine basis, and to apply the hierarchy of controls in order to eliminate hazards and minimize risks. The use of risk assessment tools is required by all management and field personnel. The data is shared with our field crews and management team, as well as our clients, to reflect trending and corrective action based upon any deficiency or needed improvement.

This year, we introduced mobile phone applications for both the JSI and PRO Card tools to increase convenience and accessibility in the field. As a result, we've experienced a 70% increase in submittals.

**Cascade Cards** – A convenient and effective way to drive risk-prevention behavior. Cards are completed in the field or in the office, via mobile device or hand-written. Each submittal details an unsafe act or condition, the type of corrective intervention, and the response time between the observation and the corrective action.

**JSIs** – Job Site Inspections ensure regulatory and program compliance by evaluating adequate controls, adherence to standard operating procedures, equipment standards, and crew performance.

**PRO Cards** – PRO Cards are a systematic, standardized tool for observing work processes and determining if work is performed according to specific standards and/or safety best practices and behaviors. The objective is to identify and eliminate undesirable and/or at-risk behaviors, practices and conditions. PRO Cards are an opportunity to mentor employees regarding safe behaviors and exceeding performance expectations.

**MJSIs** – Management Job Site Inspections are for Directors, Vice Presidents, and other senior leadership. These inspections effectively monitor, verify, and validate the Company’s programs and procedures to facilitate the confirmation of safety, the conformance of compliance, and the verification of procedural execution.

Cross functional collaboration with our team of operations, EHS, marketing, and human resource professionals has proven successful. When faced with the challenge of an incident or negative trend these teams work together to design and implement target campaigns to promote awareness of the issue, implement correction actions, and promote incident prevention. Priority is assigned based on the real or potential level of severity of injury. Several 2019 safety campaigns were used to drive awareness on the issues of hand safety, heat illness and soft tissue injury prevention, and drilling safety/proper utility locate procedures.

Policies and procedures are continually reviewed and updated by our EHS team and senior level management to reflect corrective action and improvements in the CORE program. Additional continued improvement efforts include supplements to employee training and increased management “felt leadership” through the review, assessment, and evaluation of positive and negative data trends.

Risk Assessment tools	
2019	2018
54,001 Cascade Cards	44,976 Cascade Cards
1,308 JSIs	1,083 JSIs
2,220 ProCards	990 ProCards
80 MJSIs	120 MJSIs

Our Cascade Card is the most popular mechanism for hazard identification and prevention. The tool is used by both clients and employees who conveniently submit the card through our website as soon as the potential hazard is encountered. When a Cascade card is entered, the user must choose a root cause category. Data from these submissions helps track trends and their related root cause categories. This amount of detail allows us to compare Cascade Card data against incident activity and determine if the specific risk is being mitigated effectively.

### Clients and employees are strongly encouraged to submit a Cascade Card

every time they spot a potential safety risk. Each card is carefully reviewed by our experienced team of safety professionals. Our Cascade Card is accessible on the Cascade website at <https://www.cascade-env.com/cascade-card/>

 READ MORE ONLINE

In 2019, we updated the root cause categories to provide a greater level of detail and allow for more in-depth analysis. Below is a list of the 18 current root cause subcategories:

- **Behavior:** line of fire or crush point, procedure, PPE, mentoring opportunity, driving, ergonomics, operating equipment
- **Condition:** biological, environmental, utility proximity, weather, housekeeping, site security, physical
- **Equipment:** mechanical defect, struck by or contact, vehicle related, stored energy

## Cascade Card Submittals

2019

54K

2018

45K

2017

45K

2016

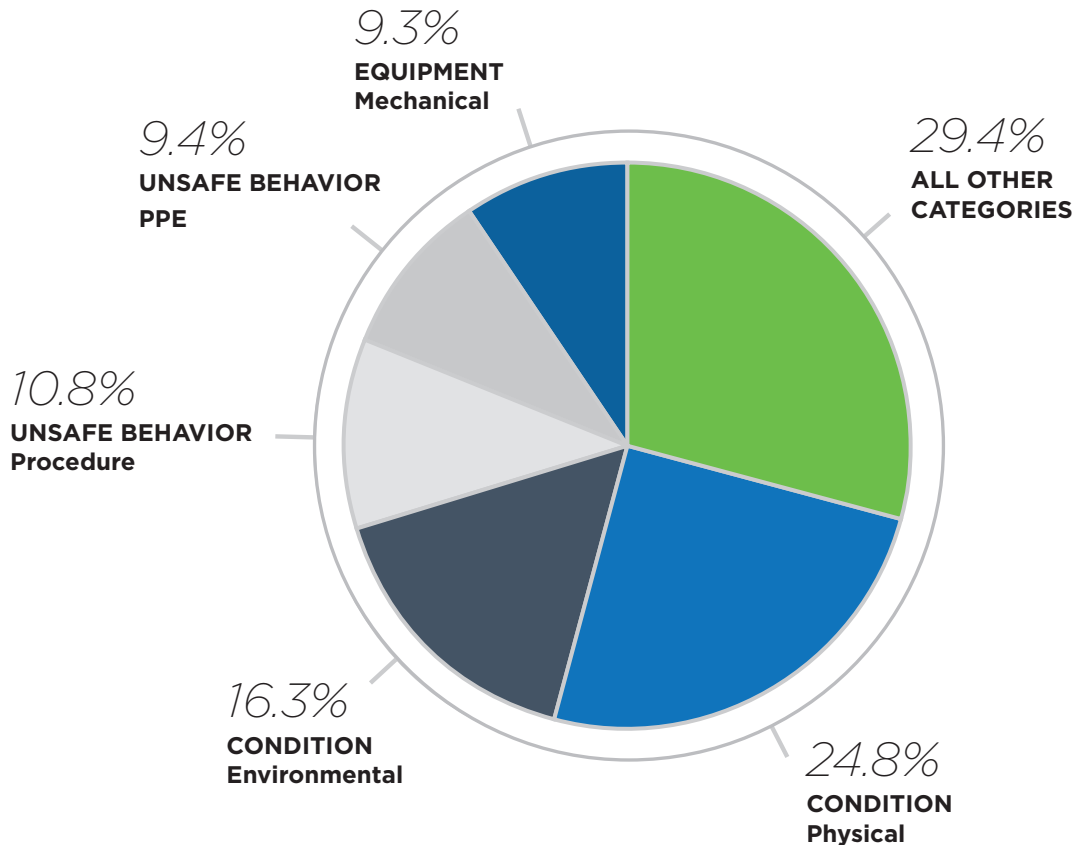
34K

2019 estimated savings due to immediate preventative action:

\$40M

## Top 5 Root Causes of Potential Hazards in 2019

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### 1. **CONDITION - Physical**

Hazards in this category relate to struck-by, struck against, caught between, temperature-related hazards, being tired, not feeling well, or being unfamiliar with a procedure or piece of equipment.

### 2. **CONDITION - Environmental**

These observations include heat illness, weather-related hazards such as driving in bad weather, or slips, trips, and falls.

### 3. **UNSAFE BEHAVIOR - Procedure**

Most often these types of hazards are recognized by fellow employees observing someone displaying at-risk behaviors. Without action, these hazards would go unmitigated and can eventually lead to an injury.

### 4. **UNSAFE BEHAVIOR - PPE**

Although PPE is the last line of defense, not wearing the proper PPE can and does result in injuries

### 5. **EQUIPMENT - Mechanical**

This subcategory is related to mechanical deficiencies like broken or loose hardware, faulty pieces, vehicle lighting or low tire pressures, and pre-operation inspection items. Every day our employees rely on equipment that must be maintained for safe working conditions, making this one of the most important hazards to mitigate.

NOTE-All other categories include:

Behavior: line of fire or crush point, mentoring opportunity, driving, ergonomics, operating equipment; Condition: biological, utility proximity, weather, housekeeping, site security; Equipment: struck by or contact, vehicle related, stored energy

When employees believe they are in a situation that could cause injury or ill health, they have the power to immediately remove themselves and instigate the proper corrective action under Cascade's Stop Work Authority policy. To ensure these programs work as intended, employees are trained on hazard risk analysis, assessment, and mitigation starting with the new employee onboarding process and annually thereafter. Specifically, employees are trained to implement the seven elements of CORE in the field to recognize hazards, eliminate all potential risk to safety, and implement the proper control measure.

When an incident does occur, we have the appropriate processes to ensure the proper care of employees, determine incident causes, and drive the improvement of procedures. This is covered in detail in the CORE Key Element 7- Incident Investigation & Case Management.

**Highlights include:**

- Immediate incident reporting
- Professional incident and injury case management
- Thorough investigation completed by trained EHS professionals and investigation team
- Reporting to regulatory authorities as required
- Root cause determination and high-level causal factor evaluation
- Establish corrective actions/ preventative actions (CAPA)
- Verification and validation that corrective actions (CAPA) are sufficient, compliant and effective
- Use incident statistical data to identify positive and negative performance indicators, and then establish where improvements can be made included, but not limited to policies, procedures, standards, risk assessment tools, employee engagement, training, audits, inspection, and CORE program elements

## Occupational Health Services

Our employees have access to comprehensive occupational health services provided by credentialed medical clinics whenever needed, whether they are in the field or in the office. Transportation is provided to ensure they receive the right care, right away.

### Services include:

- Third party services provided by WorkCare for on-site medical evaluation
- Pre-employment and annual physical
- Periodic review of treatment and diagnosis by a third-party physician

We use multiple channels of communication to ensure all employees are familiar with these services. Company e-mail, phone, mailers, and in person meetings are the most effective. Next year, we plan to add text messaging as a convenient way to reach crew members who are often working at remote sites for weeks at a time.

Routine extensive program audits, jobsite audits, facility audits are all conducted to ensure regulatory compliance and evaluate the effectiveness of services. Our EHS team executing these review activities is comprised of highly qualified professionals trained in safety standards and regulatory compliance.

### Cascade maintains compliance with:

- Mine Safety and Health Administration (MSHA)
- Occupational Health and Safety Administration (OSHA)
- US Department of Transportation (DOT)
- State and local agencies

The personal health information of employees is subject to HIPAA laws and regulations and is therefore treated with the utmost respect and confidentiality. Cascade's Human Resources staff ensures the management of employee health information complies with state and federal regulations.

## Annual Workplace Physicals Can Save your Life



**Modern life demands yearly traditions that most of us aren't fond of, such as spring cleaning, filing taxes, and renewing car tabs.** For those working in environmental field services, the list may include annual HAZWOPER and DOT physicals. Even though requirements such as these can feel like tedious impediments to getting work done, they're important in ensuring safety on project sites, on the road—and, in cases like Larry Weiss', they may even save lives.

Larry joined Cascade 16 years ago as a Driller Assistant. He was promoted and became a driller, a position he held for 12 years. Due to his role, he was required to complete annual HAZWOPER and DOT physicals. He never thought much of it, until the day his bloodwork came back with an alarmingly high white blood cell count. The examining physician told Larry to see his primary care doctor immediately for further tests.

Larry followed through and was diagnosed with cancer.

"Look what the physical did for me," he says. "It caught my cancer early. It's pricey to do a complete physical like Cascade does—they do bloodwork, and most companies don't."

Since his diagnosis, he's received treatment and halted the cancer's progression. Larry now goes in twice a year for shots that keep the cancer at bay but has returned to work as a Shop Helper where he encourages his colleagues to be religious about scheduling their own annual exams.

*"I'm glad I did the physical every year, that's how I caught this cancer. Our team, they're watching over their guys. People here are like my family."*

- Larry Weiss, Shop Helper

## Employee Participation in the CORE Health and Safety Program

From training to recognition and even a little competition, employee engagement is an important aspect of CORE. Every employee participates in CORE. Clients and subcontracted labor are strongly encouraged to participate at the job sites. In the rare case that Cascade crews manage subcontracted labor at a jobsite, those workers are expected to follow the fundamentals of the Cascade CORE Health and Safety Program, Cascade IIPP and any regulatory standard and applicable law to the work being performed.



Employees receive a Challenge Coin to recognition exemplary safety performance

One of the ways we recognize our employees is by awarding a Challenge Coin. These coins are awarded to employees for exemplary safety performance or significant proactive safety efforts. Receiving a Challenge Coin symbolizes that one is a recognized and valued member of our organization and that their accomplishments are highly regarded and valued. This year, 202 Cascade Coins were awarded to employees.

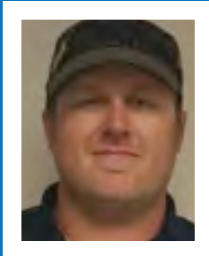
The 7 key elements of CORE ensure that all employees have the opportunity to participate in the development, implementation, and evaluation of Company programs and policies. Input is gathered from our hazard observation program in concert with suggestions and recommendations from our Field Resource Committee. Additionally, we maintain committees and work groups to focus on specific issues. Other opportunities to provide input include monthly EHS team calls, trainings, and open mic monthly safety calls with each business unit.



# 2019 Field Resource Committee



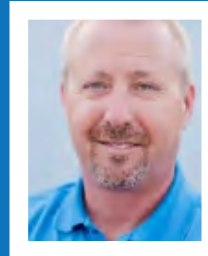
**Jose Hernandez**  
BU112 - Upland



**Dustin King**  
BU109 - Sacramento



**Zane Huckins**  
BU110 - Federal Way



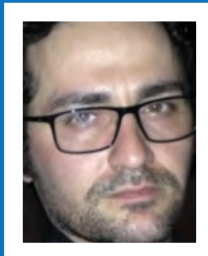
**Jimmy Hall, Jr**  
BU121 - Aiken



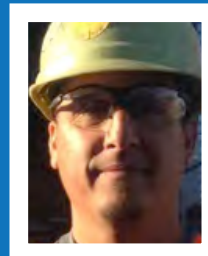
**Brook King**  
EHS Director



**Zachary Fordley**  
BU203 - Schenectady



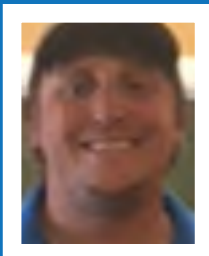
**Rashid Malyukov**  
BU602 - Mineola



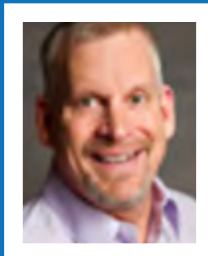
**Rob Allegrezza**  
BU601 - Mineola



**Walter Moore**  
BU204 - Tampa



**Herbert Rounds**  
BU303 - Concord



**Dale Duscher**  
EHS MW Reg  
Manager



**Todd Schmalfeldt**  
BU117 - Little Falls

## Field Resources Committee

The Field Resources Committee is dedicated to ensuring our workforce experiences the highest of safety standards every day. The committee is comprised of experts appointed by the executive team based on their industry proficiency and commitment to safety. The committee meets regularly to discuss and learn from recent incidents and safety concerns to continuously improve the excellence of our safety program. Care has been taken to assure that all service lines and drilling types are represented. The information this committee provides to the entire workforce is essential to our daily operations.

## **ELITE**

In 2015, our leadership team realized we needed to improve how we recognize our most dedicated and skilled team members. The ELITE program was founded to showcase talent throughout the organization, and to implement a “Hall of Fame” for our very best employees. Those who are recognized demonstrate not only exceptional work performance, but also a commitment to core company values such as safety, skill, leadership, performance and accountability.

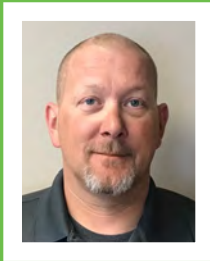
The Cascade ELITE inductees serve as more than just a model for their co-workers. They also serve a two-year term on the Cascade ELITE Commission, which is charged with providing recommendations regarding operations, safety procedures, Company

strategy, and other related issues. We recognize that these employees are top performers and, as such, may have valuable insight into ways we can improve on site, operationally, or at a corporate level.

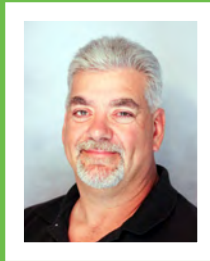
What makes the Cascade ELITE program special is that nominations for the award are made by managers and supervisors—as well as any other employee who believes their coworker meets the criteria. This means that individuals who might have fallen below our radar have an opportunity to be highlighted and recognized.

Once initial nominations are made, the Election Committee reviews each one and scores them. Employees with the highest scores are inducted into that year’s ELITE Hall of Fame.

# Cascade ELITE Hall of Fame



Chris Barden



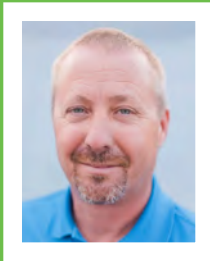
Mike Bond



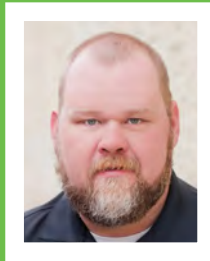
Mike Czech



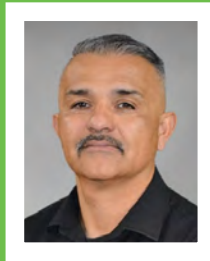
James Goble



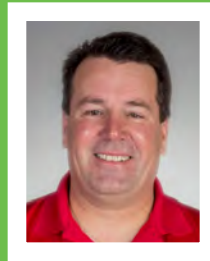
Jimmy Hall Jr.



Matt Osterberg



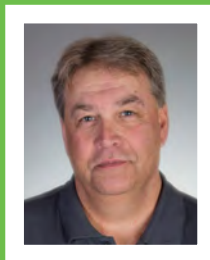
Samuel Rivera



Todd Schmalfeldt



Josh Sigler



Jon Weeks



David Wilcox



Don Winglewich

Meet the ELITEs on our website at <https://www.cascade-env.com/about-us/elite-program/>

➤ READ MORE ONLINE

### **HOS Steering Committee**

The Hours of Service (HOS) steering committee is an ad-hoc group assembled in response to areas of needed improvement identified through a federal Department of Transportation (DOT) audit in 2018-19. The committee was established to work on actionable and implementable compliance improvement tasks. The Corporate DOT leadership team nominated staff in a manner to incorporate the largest diversity, including factors such as: geographical location, type of drilling, line of business, employee role, and current compliance status.

#### **The responsibilities progressed throughout the several month process:**

- Determination of contributory factors for a variety of potential or actual compliance challenges, including both behavior/job and system contributions
- Determination of Root Causes for the issues
- Determination and implementation of Corrective Actions

The collaborative effort was a success as demonstrated through improved compliance statistics.

## INJURY RATES

We are extremely proud of our strong health and safety record. Over the last few years, statistics show an overall drop in safety related events, TRIR, and CIR, along with a consistently low EMR, which can be traced back to the influence of our CORE Health and Safety Program. As a result of the consistent application of the CORE tools we've experienced a 12% reduction in overall incident activity and a 14% reduction in severity rate over the last 24 months. We are extremely proud of achieving a TRIR under 0.70 for the second year in a row.

Our CORE Health and Safety Program is a customized, comprehensive program designed to provide clear expectations for safety and performance and to ensure compliance with regulations. The positive long-term trend is the result of active participation in CORE across all levels of our organization from management to field crews of every service line and location. The statistical reduction in injuries not only represents a significant cost avoidance in accident prevention, but more importantly means that our employees are dedicated to protecting themselves, our clients, and the communities in which we work by routinely adopting safe work behaviors. These statistics demonstrate the success of our behavior-based safety program.

	2019	2018*	2017*
TRIR	.69	.68	.79
DART	.26	.34	.44
LTC	.17	.17	.35
Fatalities	.00	.00	.00
EMR	.75	.70	.75
Hours Worked	2,307,537	2,337,638	2,270,589

A TRIR >2.0 excludes contractors from many service opportunities

### Understanding Safety Statistics:

- **TRIR** - the Total Recordable Incident Rate reflects the number of OSHA recordable injuries during the total hours worked by all employees that year
- **DART** - the Days Away, Restricted, and Transfer case rate reflects the number of cases which involve days away from work, days of restricted work activity, and/or days of job transfer during the total hours worked by all employees that year
- **LTC** - the Lost Time Case Rate reflects the number of occupational injury or illness which results in an employee being unable to work a full assigned work shift during the total hours worked by all employees that year
- **Fatalities** - the number of workplace incidents that result in death of an employee
- **EMR** - the Experience Modification Rate is a number used by insurance companies to gauge both past cost of injuries and future chances of risk. An EMR of 1.0 is considered the industry average

A total of

8

**OSHA recordable incidents  
occurred in 2019**

A total of eight OSHA recordable incidents occurred in 2019. These were primarily hand injuries and soft tissue related. As a result related safety awareness campaigns were launched to promote safe work practices, along with a more aggressive focus on the CORE Health and Safety Program tools to ultimately reduce risk that could result in additional injuries. Additional evaluation of 2019 data trends and performance indicators were used to determine where corrective action is required and where adjustments to training, policy, and procedure implementation in the field may be necessary. Responses include safety campaigns, increase in inspections and audits, communication of safety related events (both internal and external to Cascade), and enforcing compliance with specific CORE requirements. Additionally, the EHS team conducted a thorough audit of CORE to improve program elements, specific to reversing any incident trend. The Jobsite Inspection (JSI) and Performance and Risk Observation (PRO) tools were modified and are now smartphone accessible for real time data collection in the field.

## 2019 SAFETY MILESTONE AWARDS

Nearly 90% of all business units have gone one year or longer without a reportable incident or loss time accident. We celebrate these achievements each year with our Health and Safety awards.

32  
business units completed  
the year without a  
reportable incident

### Our Obsidian Award Recipients

(1 year without reportable incident or loss time accident)



- Mineola, NY ADT (#602)
- Peoria, AZ
- Sacramento, CA
- Woodinville, WA

### Our Granite Award Recipients

(2 years without reportable incident or loss time accident)



- Longview, WA
- Salt Lake City, UT
- Santa Ana, CA
- Schofield, WI

### Our Marble Award Recipients

(3-4 years without reportable incident or loss time accident)



- Concord, CA
- Gardner, MA (#501)
- Houston, TX
- Huntsville, AL
- Jackson, NJ
- Little Falls, MN
- Lynbrook, NY
- Medford, NJ
- Midland, NC
- Millersville, MD
- Mineola, NY (#601)
- Montpelier, VT
- New Ellenton, SC
- Peralta, NM
- Tampa, FL

### Our Quartz Award Recipients

(5+ years without reportable incident or loss time accident)



- Boise, ID
- Clackamas, OR
- Denver, CO
- Gardner, MA (#114)
- Marietta, OH
- Memphis, TN
- Richmond, CA
- Santee, CA
- Schenectady, NY

## Employee Training & Education



Cascade supports ongoing training and development of employees to build knowledge, skills, and capabilities that advance the individual and team performance. Our comprehensive training and development programs start on an employee's first day at Cascade and continues throughout his/her career with us.

**New Employee Orientation** - introduction and familiarization of Company policies, procedures, and practices with an emphasis on department and job-specific functions. The three-module program includes an overview of our organization, service lines, and all the resources available for new employees to assimilate into the Cascade family

**Technical & Functional Training** - acquisition and development of specific knowledge, skills, and abilities related to the job function

**Safety Training** - awareness, understanding, and adherence to Company policies, procedures, and practices regarding health and safety

**Compliance Training** - awareness, understanding, and adherence to regulatory, insurance, credentialing requirements and standards, as well as the Company's internal policies and procedures

**Leadership & Development Training** - awareness, understanding, and application of effective and compliance leadership practices

Average Hours of Training per Employee	Total Hours of Training Conducted	Employees Utilizing Educational Reimbursement Program
<p>2019</p> <p>51 hrs</p> <hr/> <p>2018</p> <p>37 hrs</p> <hr/> <p>2017</p> <p>57 hrs</p>	<p>2019</p> <p>45,870</p> <hr/> <p>2018</p> <p>33,500</p> <hr/> <p>2017</p> <p>61,845</p>	<p>2019</p> <p>1%</p> <hr/> <p>2018</p> <p>1%</p>



We invested more than

**\$1.6M**

in employee training in 2019  
and more than

**\$5M**

in the last 3 years.

## ALL EMPLOYEES

- Web-based Microsoft Office product training in which employees create a development plan based on their own individual needs
- Educational reimbursement plan reimburses employees for the cost of the course and fees associated with a job-related degree or certification, up to the IRS limit. In 2019, Cascade provided more than \$14,000 to assist employees pursue 2 Associate degrees, 1 Bachelor degrees, and 1

Master degree

- Subject to approval from their leadership, employees may attend conferences and trainings that are specific to their role
- Prevention of Sexual Harassment training provided to all employees. Managers completed a two-hour session and all other employees a one-hour session

## FIELD EMPLOYEES

- New hires are instructed through the use of classroom and hands-on training of Cascade's CORE Health and Safety Program, Loss Prevention System (Behavior Based Safety), 40 Hour HAZWOPER, and MSHA training in addition to other courses
- In-person instructor-led training replaced a significant portion of the computer-based training

- An annual refresher training including: OSHA HAZWOPER, MSHA, Loss Prevention System (LPS), and Cascade's CORE Health and Safety Program
- Regular local safety meetings and team calls hosted by Cascade's EHS department to review safety alerts, policy, program, and procedure updates, and address trending issues

## MANAGEMENT

- Two-hour training through Cascade Performance Management System covering program overview and impacting employee performance



**In 2019, four Cascade employees used the First Aid skills they'd acquired on the job to save a life.** Each utilized the Heimlich Maneuver to stop a choking incident. These employees received a Cascade Challenge Coin for Outstanding Achievement in recognition of their heroic efforts.

New training initiatives for 2019 included prevention of sexual harassment for all employees, brand awareness and sales process training for all sales-related positions, implementation of a digital learning management system (LMS) platform, on-site safety and equipment training for clients and classroom and field training to replace video-based self-guided training sessions.

Our ELITEs play a significant role in mentoring new employees specific to health and safety leadership, compliance, and operational excellence. ELITEs are known to lead by example and work side by side with the new employees on the jobsite to ensure they understand all aspects of the field operations, how to perform their job safely at the highest level of excellence, and exceed client expectations. They mentor new employees during the initial onboarding phase focusing specifically on:

- compliance, expectations, and safe work practices
- applying the 7 elements of our CORE Health and Safety Program
- driver safety and DOT compliance
- other environmental and safety regulations



Richard Mooney trains new employees eager to begin their field services career with Cascade.

### **Richard Mooney, Trainer**

Richard Mooney is a member of Cascade's training team. Richard started in the drilling industry in 1997. He spent a few years as a civilian contractor in Afghanistan and Iraq during Operation Enduring Freedom and Iraqi Freedom. Today, Richard assists the Talent Acquisition Team by screening candidates, teaches in-person 40-hour

HAZWOPER classes, and assists drillers in obtaining state drillers licenses. Our team of trainers also works closely with each corporate department to ensure new employees receive a comprehensive support on everything from project management, job execution, human resources, sales and marketing, finance, information technology, and administration.

## **Cascade Webinar Series**

Cascade launched its webinar series in 2018. Our subject matter experts have delivered a steady cadence of valuable content through live broadcast and on-demand videos to more than 3,000 registrants in the last two years. Each webinar is a unique opportunity for attendees to speak directly with environmental professionals on topics ranging from environmental

remediation, geotechnical and environmental drilling, site characterization, safety, sustainability, and environmental field services careers. Get instant access to our webinar archives or register for future broadcasts at <https://www.cascade-env.com/resources/webinars/>

 [READ MORE ONLINE](#)

**The Company encourages performance feedback on an ongoing basis. Formal performance reviews are conducted each year.**



## Performance Reviews



Cascade’s Performance Management System (CPMS) has, as its primary purpose, the continual improvement and development of each employee’s knowledge, skills and abilities as they relate to job performance. It is a process of on-going planning, review and development involving the supervisor and the employee, who together identify common goals and objectives that relate to achieving business results. The system is designed to address performance and skill development needs and interests. As part of the process, each employee will be given the opportunity to complete a self-assessment of their performance and identify future career development interests.

The Company encourages performance feedback on an ongoing basis. Formal performance reviews are requested by March 31 for the previous year.

### Performance Review by Gender

Percent of Total Workforce		
	2019	2018
Female	3%	3%
Male	29%	22%

### Percent of this Category Completing Annual Performance

	2020 Goal	2019	2018
Female	80%	27%	33%
Male	80%	32%	25%

On average,  
**29%**  
of the total workforce  
received a performance  
review in 2019, similar  
to the previous year.

Performance Review by Job Role	Percent of total workforce		Percent of this category completing annual performance review	
	2019	2018	2019	2018
<b>Executive &amp; Senior Management</b>	< 1%	<1%	<b>22%</b>	11%
<b>First and Mid-Level Management</b>	<b>2%</b>	2%	<b>25%</b>	28%
<b>Professionals</b>	<b>3%</b>	2%	<b>25%</b>	21%
<b>Technicians</b>	<b>0%</b>	0%	<b>0%</b>	0%
<b>Sales Workers</b>	<b>2%</b>	< 1%	<b>20%</b>	13%
<b>Administrative Support</b>	<b>2%</b>	3%	<b>32%</b>	40%
<b>Craft Workers - Skilled</b>	<b>21%</b>	13%	<b>34%</b>	31%
<b>Operatives - Semi-Skilled</b>	<b>6%</b>	6%	<b>18%</b>	18%

On average, 29% of the total workforce received a performance review in 2019, similar to the previous year. Our goal is a documented performance review for 80% of the total workforce each year. To accomplish this, we introduced the Cascade Performance Management System (CPMS) in 2018. The system includes a formal employee performance review document and training was provided for both managers and employees. Live and on-demand training sessions are provided in the first quarter each year. The review process includes feedback on prior year performance as well as goal setting for the future. Starting in 2020, a documented CPMS review document will be required for most salary increase types.

# COMMUNICATING OUR PERFORMANCE

Our goal is to advance sustainability through words and action.

Our Company has evolved significantly over the years — from a drilling partner to comprehensive environmental field services provider. So too has Compass, our Corporate Sustainability program.

The Compass name was quite fitting back in 2014 when Cascade was just launching a formal sustainability program. Together, we navigated through what the triple bottom line really means to the organization and our stakeholders. We’ve learned how Excellence on Every Level translates to sustainability, from the grassroots efforts of our Green Team to the highest levels of management on our Sustainability Council.

As our efforts became more sophisticated, we embarked in large-scale stakeholder engagement efforts as well as a total reassessment of our goals and key performance indicators. We reached out to those who are impacted by our business and those who have the ability to influence our business. We’ve engaged in strategic planning to address the concerns raised through that process, conducted thorough performance reviews, and implemented change to achieve continuous improvement. All of this helped align our efforts with the internationally recognized GRI Standards.

These efforts are in vain when we are not adequately communicating both the effort and the results. Why? Because telling the story of our journey and sharing all those details serves as an example, a benchmark, and even an inspiration. This communication goal is new to Cascade and is included in our 2020 Sustainability Plan. It came to our attention through the 2017 stakeholder engagement survey that our communication efforts may be lacking.

<b>Stakeholder Awareness</b> How would you rate Cascade’s sustainability performance today, based on what you read/know?	2017 Benchmark	2020 Goal
<b>Very Poor</b>	1%	0%
<b>Poor</b>	2%	0%
<b>Mediocre</b>	15%	10%
<b>Strong</b>	33%	55%
<b>Very Strong</b>	7%	25%
<b>I’m not Familiar</b>	42%	10%

Our 2020 Sustainability Plan details three areas of improvement that are expected to touch all our stakeholder groups.

### **Annual Reporting**

We will continue to publish a Corporate Sustainability Report annually by June 1 each year. Following publication, we will launch a full-scale marketing campaign to promote awareness of sustainability issues, offer resources, and encourage our audience to connect and collaborate with us.

### **Employee Communications**

Our Sustainability Council is committed to more frequent communication using a wide range of platforms including newsletter, email, social networking, intranet, Microsoft Teams, Company meetings, webinars, blogs, social media, and training modules. Sustainability is now a mandatory component of employee on-boarding.

### **External Communications**

Every Cascade employee is considered a brand ambassador. Educating our workforce on sustainability issues and providing them with valuable resources gives them confidence to take the conversation to our external stakeholders. Additionally, we are committed to engaging directly with our external stakeholders through our Cascade Conversation newsletter, website, client presentations, social media, blogs, case studies, webinars, and active participation at industry conferences and workshops.

### **Our efforts this year to increase communication across the Cascade organization and with our external audience include:**

- Our Sustainability Council added two new seats in 2019 and a third is planned in 2020
- All lines of business and corporate service departments actively participate in compiling our Corporate Sustainability Report
- Routinely adding multi-media content, both original and curated, to help our audience define sustainability and connect the environmental, social, and economic issues to their personal and professional lives
- Specific emphasis on leveraging site characterization and remediation technologies to improve the sustainability footprint throughout every stage of the project lifecycle
- Actively engage with more than 50 volunteer brand ambassadors to increase awareness
- Conducting a more in-depth analysis of our performance under the GRI sustainability reporting framework and sharing that insight in our Corporate Sustainability Report



**OUR QUARTERLY NEWSLETTER**

## *Cascade Conversation*

Our quarterly newsletter, *Cascade Conversation*, includes a segment to help our audience better understand the integrated concept of sustainability. It offers recommendations on embracing sustainability at home and in the workplace.



## OUR QUARTERLY NEWSLETTER

# Cascade Conversation

### From Our January Newsletter

January marks the start of our new reporting and provides a valuable opportunity for our Sustainability Council to spend the day together looking back at our accomplishments and setting new goals. You may take the opportunity to do the same. If you are interested in exploring new ways to incorporate sustainable practices at home or at work, consider these five impactful practices.

#### Share your time, treasure, and talent.

These simple acts build community, connect us in a meaningful way, and improve conditions for those in need. There are thousands of non-profit associations, local community groups, schools, and people in your neighborhood who would benefit from your contributions.

#### Grow something.

Plants are good for you and good for the planet. Houseplants clean the air you breath and have a pleasing aesthetic quality. Gardening your own food has many positive impacts as well- from nutrition to pollination, and even personal well-being benefits such as stress reduction, fitness and boosting your mood. Don't have space? Join a community garden or start one at the office.

#### Incorporate standards for Greener Cleanups.

The American Society for Testing and Materials (ASTM) issued international standards to identify, prioritize, select, implement, and report on the use of best management practices to reduce the environmental footprint of cleanup activities. Familiarize yourself with the standards, advocate for their use, and apply when feasible.

#### Get organized.

This may seem like a stretch when talking about sustainability, but it actually impacts all aspects: environmental, social, and economic. Getting organized not only reduces stress but increases efficiency. Group errands and run them all at once to reduce road miles. Planning ahead reduces waste and can even save money. For example, dedicate one day a week to go to the grocery store. Plan your meals for the upcoming week, keep a running list in a handy place, watch the sale ads, clip the coupons, and stick to the list.

#### Observe a zero day every month.

Choose an activity you engage in regularly that has a significant impact- maybe it's purchasing, carbon-based transportation, eating meat- and go without for one day every month. This practice raises your awareness of the impacts of your personal activity and helps you make sustainable practices more routine.





## GROW WITH US

Just as a tree takes years to grow and mature, so does sustainability reporting. It is a long-term process and investment, and requires continued collaboration in and outside our Company. Our reporting efforts grow each year. Since our first report in 2014, each year we have:

- Increased the number of reported metrics
- Set targets across all material aspects
- Provided more in-depth analysis of our performance
- Reached out to stakeholders and invited them to participate in our process

And like the shade of a leafy oak tree on a hot summer day, we hope our actions toward a sustainable future benefit those around us and advance sustainability in all its forms: social responsibility, environmental stewardship and economic prosperity.

We appreciate your interest and hope to hear from you. Connect with Cascade Environmental today and every day.



[www.cascade-env.com](http://www.cascade-env.com)

# GRI CONTENT INDEX

## GENERAL DISCLOSURES

Number	GRI Standard	GRI Disclosure	Location and Notes	Page #	Omission and Notes
102-1	Organizational Profile	Name of organization	Cascade Environmental		
102-2		Activities, brands, products, and services	Cascade Brands; Suite of Services	11; 13	
102-3		Location of headquarters	Bothell, WA		
102-4		Location of operations	Our Business; Our Markets	6; 14	
102-5		Ownership and legal form	Privately Held		
102-6		Markets served	Our Markets	14	
102-7		Scale of organization	Our Business	6	Total capitalization omitted. As a privately held firm, Cascade's financial data is not publicly disclosed
102-8		Information on employees and other workers	Diversity The organization uses temporary labor or subcontracted labor based to supplement existing staff, based on volume of projects and departmental needs.	63	Data includes all employees on active status as of the end of the calendar year. Since temporary employees and subcontracted labor are not on the Company's payroll, their data is not included in the report.
102-9		Supply chain	Supply Chain	19	
102-10		Significant changes to the organization and its supply chain	Changes in Our Supply Chain	22	
102-11		Precautionary Principle or approach	Not applicable		
102-12		External initiatives	None		
102-13		Membership of associations	Memberships	23	
102-14	Strategy	Statement from senior decision-maker	Chief Executive's Message	2	
102-15		Key impacts, risks, and opportunities	Chief Executive's Message	2	
102-16	Ethics and Integrity	Values, principles, standards, and norms of behavior	Mission, Vision, Core Values; Governance, Ethics & Integrity	9; 17	

Number	GRI Standard	GRI Disclosure	Location and Notes	Page #	Omission and Notes
102-17	Ethics and Integrity	Mechanisms for advice and concerns about ethics	Governance, Ethics & Integrity	17	
102-18	Governance	Governance structure	Governance, Ethics & Integrity	17	
102-40	Stakeholder Engagement	List of stakeholder groups	Our Stakeholders	26	
102-41		Collective bargaining agreements	Diversity	63	
102-42		Identifying and selecting stakeholders	Our Stakeholders	26	
102-43		Approach to stakeholder engagement	Our Stakeholders	26	
102-44		Key topics and concerns raised	Reporting What Matters	27	
102-45	Reporting Practice	Entities included in the consolidated financial statements	About This Report	1	As a privately held firm, Cascade does not publicly release consolidated financial statements
102-46		Defining report content and topic boundaries	About This Report	1	
102-47		List of material topics	Reporting What Matters	27	
102-48		Restatements of information	About the Report	1	
102-49		Changes in reporting	None		
102-50		Reporting period	January 1, 2019 – December 31, 2019		
102-51		Date of most recent report	April 2019		
102-52		Reporting cycle	Annual		
102-53		Contact point for questions regarding the report	About This Report	1	
102-54		Claims of reporting in accordance with the GRI Standards	About This Report	1	
102-55		GRI content index	GRI Content Index	96	
102-56	External assurance	External assurance	We do not externally assure any data in this report.		

## ECONOMIC

Number	GRI Standard	GRI Disclosure	Location and Notes	Page #	Omission and Notes
201	<b>Economic Performance</b>				
103-1	Management Approach	Explanation of the material topic and its boundary	Management Approach	29	
103-2		The management approach and its components	Management Approach	29	
103-3		Evaluation of the management approach	Management Approach	29	
201-1		Direct economic value generated and distributed	Our Business. Reporting net sales, jobs performed, and community investment.	6	As a privately held firm, Cascade's financial data is not publicly disclosed
201-3		Defined benefit plan obligations and other retirement plans	Benefits and Compensation	58	
202	<b>Market Presence</b>				
103-1	Management Approach	Explanation of the material topic and its boundary	Employment	51	
103-2		The management approach and its components	Management Approach; Employment	29; 51	
103-3		Evaluation of the management approach	Employment	51	
202-1		Ratios of standard entry level wage by gender compared to minimum wage	Benefits and Compensation	58	
204	<b>Procurement Practices</b>				
103-1	Management Approach	Explanation of the material topic and its boundary	Supply Chain	19	
103-2		The management approach and its components	Management Approach; Supply Chain	29; 19	
103-3		Evaluation of the management approach	Supply Chain	19	
204-1		Proportion of spending on local suppliers	Sourcing Partners	20	

## ENVIRONMENTAL

Number	GRI Standard	GRI Disclosure	Location and Notes	Page #	Omission and Notes
302	<b>Energy</b>				
103-1	Management Approach	Explanation of the material topic and its boundary	Fuel	30	
103-2		The management approach and its components	Management Approach; Fuel	29; 30	
103-3		Evaluation of the management approach	Fuel	30	
302-1		Energy consumption within the organization	Fuel	30	
302-4		Reduction of energy consumption	Fuel Reduction Efforts	31	
302-5		Reductions in energy requirements of products and services	Fuel Reduction Efforts	31	
304	<b>Biodiversity</b>				
103-1	Management Approach	Explanation of the material topic and its boundary	Sustainable Field Practices	32	
103-2		The management approach and its components	Management Approach; Sustainable Field Practices	29; 32	
103-3		Evaluation of the management approach	Sustainable Field Practices	32	
304-2		Significant impacts of activities, products, and services on biodiversity	Sustainable Field Practices	32	
306	<b>Effluents and waste</b>				
103-1	Management Approach	Explanation of the material topic and its boundary	Sustainable Field Practices	32	
103-2		The management approach and its components	Management Approach; Sustainable Field Practices	29; 32	
103-3		Evaluation of the management approach	Sustainable Field Practices	32	

Number	GRI Standard	GRI Disclosure	Location and Notes	Page #	Omission and Notes
306-3		Significant spills	Spill Prevention	32	A 'significant spill' is one that involved a reportable quantity under hazardous materials regulations
307	<b>Environmental Compliance</b>				
103-1	Management Approach	Explanation of the material topic and its boundary	Environmental Compliance	37	
103-2		The management approach and its components	Management Approach; Environmental Compliance	29; 37	
103-3		Evaluation of the management approach	Environmental Compliance	37	
307-1		Non-compliance with environmental laws and regulations	Environmental Compliance	37	a 'significant fine' is one that resulted in monetary penalty greater than \$10,000
308	<b>Supplier Environmental Assessment</b>				
103-1	Management Approach	Explanation of the material topic and its boundary	Supply chain	19	
103-2		The management approach and its components	Management Approach; Supply chain	29; 19	
103-3		Evaluation of the management approach	Supply chain	19	
308-1		New suppliers that were screened using environmental criteria	Vendor Screening and Evaluation	22	
308-2		Negative environmental impacts in the supply chain and actions taken	Supply chain	19	

## SOCIAL

Number	GRI Standard	GRI Disclosure	Location and Notes	Page #	Omission and Notes
401	<b>Employment</b>				
103-1	Management Approach	Explanation of the material topic and its boundary	Employment	51	
103-2		The management approach and its components	Management Approach; Employment	29; 51	
103-3		Evaluation of the management approach	Employment	51	
401-1		New employee hires and employee turnover	Employee Recruitment and Retention	51	
401-2		Benefits provided to full-time employees that are not provided to temporary or part-time employees	Benefits and Compensation	58	
401-3		Parental leave	Benefits and Compensation	58	
403	<b>Occupational Health and Safety</b>				
103-1	Management Approach	Explanation of the material topic and its boundary	Health & Safety	69	
103-2		The management approach and its components	Management Approach; Health & Safety	29; 69	
103-3		Evaluation of the management approach	Health & Safety	69	
403-1		Occupational health and safety management system	Health & Safety	69	
403-2		Hazard identification, risk assessment, and incident	Hazard Identification, Risk Assessment, and Incident Investigation; investigation; Savings due to immediate preventative action calculated based on the average cost per injury related to the selected observation mitigation effort	71	

Number	GRI Standard	GRI Disclosure	Location and Notes	Page #	Omission and Notes
403-3		Occupational health services	Occupational Health Services	76	
403-4		Worker participation, consultation, and communication on occupational health and safety	Employee Participation in CORE Health & Safety Program	78	
403-5		Worker training on occupational health and safety	Health & Safety Employee Training & Education	69; 86	
403-6		Promotion of worker health	Benefits and Compensation	58	
403-8		Workers covered by an occupational health and safety management system	Health & Safety	69	
403-9		Work-related injuries	Injury Rates	83	
403-10		Work-related ill health	None to report. Employees are medically evaluated with a pre-employment physical an annual physical thereafter to determine medically fit to perform the work- related tasks at Cascade.		
404	<b>Training and Education</b>				
103-1	Management Approach	Explanation of the material topic and its boundary	Employee Training & Education	86	
103-2		The management approach and its components	Management Approach; Employee Training & Education	29; 86	
103-3		Evaluation of the management approach	Employee Training & Education	86	
404-1		Average hours of training per year per employee	Employee Training & Education	86	
404-2		Programs for upgrading employee skills and transition assistance programs	Employee Training & Education. Cascade does not provide transition assistance	86	
404-3		Percentage of employees receiving regular performance and career development reviews	Performance Reviews	89	



Number	GRI Standard	GRI Disclosure	Location and Notes	Page #	Omission and Notes
405	<b>Diversity and Equal Opportunity</b>				
103-1	Management Approach	Explanation of the material topic and its boundary	Diversity	63	
103-2		The management approach and its components	Management Approach; Diversity	29; 63	
103-3		Evaluation of the management approach	Diversity	63	
405-1		Diversity of governance bodies and employees	Diversity	63	
405-2		Ratio of basic salary and remuneration of women to men	Benefits and Compensation	58	
406	<b>Non-Discrimination</b>				
103-1	Management Approach	Explanation of the material topic and its boundary	Employment	51	
103-2		The management approach and its components	Management Approach; Employment	29; 51	
103-3		Evaluation of the management approach	Employment	51	
406-1		Incidents of discrimination and corrective actions taken	'incident' is considered a legal filing. There are zero incidents of discrimination during the reporting period		