NOV.DEC 2022 Volume 13 Number 6

UTILITY ARBORIST NIEWS SLINE

FOCUS ON WORKFORCE RETENTION & EDUCATION

SAFETY
GROWTH &
COLLABORATION
DETERMINE OUR
LONG-TERM SUCCESS

JOIN A COMMITTEE AND HELP OUR INDUSTRY GROW



LEARN HOW TO ACQUIRE & RETAIN A RELIABLE WORKFORCE



We are proud of our record of being real when it comes to technology solutions. Sure, we can talk about our expertise with remote sensing, machine learning and custom software but we'd rather listen first – our solutions are flexible and adaptable based on what you actually need.



Learn more about Davey's suite of technology solutions by scanning the code.













ASSET MANAGEMENT



COMMUNICATIONS CONSTRUCTION



STORM RESPONSE

UTILITY ARBORIST ASSOCIATION

2022-2023 OFFICERS



We are an organization of over 5,000 individuals with interest in, and a commitment to, the maintenance of trees and other vegetation for the purpose of ensuring the safe and reliable distribution of energy, including electric, oil, and gas, to business and residences.

PRESIDENT Tim Walsh

The Davey Tree Expert Company (303) 673-9515 tim.walsh@davey.com

PRESIDENT ELECT Brandon Hughson

Rainbow Treecare Scientific Advancements (612) 685-5476 bhughson@treecarescience.com

VICE PRESIDENT Matt Goff

Georgia Power Company (404) 506-2634 dmgoff@southernco.com

PAST PRESIDENT Geoff Kempter

Asplundh Tree Expert Co. (215) 915-3998 gkemp@asplundh.com

TREASURER Jim Neeser

Davey Resource Group (651) 202-1088 jim.neeser@davey.com

DIRECTORS

Dr. John BallUniversity of South Dakota (605) 688-4737

john.ball@sdstate.edu

Erin Creekmur

Arizona Public Service (APS) (928) 773-6458 erin.creekmur@aps.com

Craig Kelly

Pacific Gas & Electric (530) 246-6573 cpk2@pge.com

Kevin Puls

ACRT (330) 945-7500 kpuls@acrtinc.com

Tyler Sorensen

Rocky Mountain Power (385) 499-2718 tsorensenuaa@gmail.com

Adam Warf

Environmental Consultants Inc. (ECI) (919) 906-7016 awarf@eci-consulting.com

UTILITY ARBORIST ASSOCIATION

Executive Director Dennis Fallon (651) 464-0380 dfallon@gotouaa.com

Program & Operations Manager Diona Neeser

dneeser@gotouaa.org

Member Services Manager Renée Phillips

rphillips@gotouaa.org

UTILITY ARBORIST NEWSLINE (UAN)

Editorial Chair Renée Bissett

ACRT Services rbissett@acrtinc.com

Editorial Co-Chair Michelle Vignault

Clearion

mvignault@clearion.com

EDITORIAL COORDINATION & ART DIRECTION

Pique Publishing, Inc.

Nadia Geagea Pupa nadia@piquepublishing.com

Lindsay Denney

lindsay@piquepublishing.com

Copyright © 2022 by the Utility Arborist Association. All rights reserved.

The *Utility Arborist Newsline* is published bi-monthly by the UAA,

2009 W. Broadway Ave., Suite 400, PMB 315, Forest Lake, MN 55025

ISSN Print: 2770-5927 | ISSN Digital: 2770-5935 | *Cover image courtesy of ACRT*

CONTENTS

President's Message	4
Executive Director Message	6
Editorial Committee Update	8
Part 1: UVM Managers Summit	10
2022 UAA Awards	12
New Hampshire Regional Meeting	18
Nelsen Money Scholarship	27
Spotlight on the Environment	46
FEATURES	

Three Tips for Retention	20
Recruitment and Retention	24
Young Professional Profiles	26

Skilled Arborist Training	
Program	30
Mapleton National Park Trials	36
Sowing the Seeds for Tomorrow's Workforce	42
Professional UVM Credential Program	44
How IVM Can Expand the Workforce	48
OPINION EDITORIALS	
Sustainability Initiatives & Workforce Retention	34
IVM Is a Framework.	

Not a Prescription....



Turn to **page 12** to read about the 2022 UAA Award Recipients.

50

Here we GROW
again! Turn
to page 30
to read about
how the Utility
Line Clearance
Program is
expanding
nationwide.





Turn to page 36 to learn about the control burn coordination trials at Mapleton National Park in Australia.

This is a list of common industry terms and acronyms frequently used in this magazine. Artificial Intelligence (AI)
Best Management Practices (BMPs)
Corporate Social Responsibility (CSR)
Environmental, Social, and Governance
(ESG)
General Foreperson (GF)

Geographic Information Systems (GIS)
Integrated Vegetation Management (IVM)
Light Detection and Ranging (LiDAR)
Machine Learning (ML)
Low-Volume Foliar (LVF)
Personal Protective Equipment (PPE)

Return-on-Investment (ROI)
Rights-of-Way (ROW)
Subject Matter Expert (SME)
Unmanned Aerial Vehicles (UAV)
Utility Vegetation Management (UVM)
Vegetation Management (VM)

President's Message



We should put more energy into recruiting students into the profession and

the UAA.

s I sat down to write thiscoffee maker bubbling, lights at my desk, computer turned on, one of my playlists humming on my smart speaker system-I remembered how important our industry's work is. Many people, most actually, rarely think about the importance of the power grid and its safe functioning. But when the power stops flowing, everyone notices!

When we all do our work and when the system is functioning as designed, no one notices. I would like to challenge us to remind the world that what we do is essential. Our profession has always known this, but it wasn't until the pandemic that we first started hearing that we are "essential." The general public appreciates it when we get the power back on, but if they realized how much work goes into what happens when they flip the switch every morning, I think it would help us drive our profession forward.

All of this is a preamble to the key topics to focus on during my year as president. These three issues are related to each other and are critical parts of the UAA mission, vision, and values:

- ✓ Safety
- ✓ Collaboration
- ✓ Growth of the organization

Simply put, the safety of the grid will improve the more our profession collaborates both internally and externally while recruiting, training, educating, and retaining a high-quality

As a safety professional, it's no surprise that the first item on my list is safety, in the broadest, most all-

encompassing way. It means the safe, reliable delivery of energy resources. It means that our work reduces disruption of the flow of energy while diminishing the potential for catastrophic fires and other injuries and damages caused when the energy flows in ways we did not intend. This includes environmental degradation and injury as well.

Safety also means creating a workspace where we have built in resiliency and capacity for work to go well. We recognize that our highly skilled professionals work

in high-risk and ever-changing environments, and as humans, errors are going to happen. We need to continue to create systems that allow for human error without life-altering outcomes. Workers aren't the problem; they are the problem solvers.

The UAA has always been built on collaboration, and the more we can focus on this, the stronger the organization will be. The best example of this collaboration takes place in the UAA committees and subcommittees. The volunteer members of these groups often "compete" outside of the UAA, but in these meetings, we are all aligned to advance the mission and vision and promote the organization's values.

Please reach out to the committee chair, champion, or UAA staff if you would like to learn about or be involved in these various committees. The list of committees includes Safety, Stewardship on ROW, Outreach, Professional Development, Events, Editorial, Research, and Finance. There are also numerous subcommittees and task forces that could use more people like you!

We strengthen our organization and profession, not only through these internal collaboration opportunities, but also through external ones. We have long-standing relationships with many organizations (Arbor Day Foundation, ISA and their chapters, The Tree Care Industry Association, among others). We must continue strengthening these collaborative efforts and build new ones with other organizations that directly and indirectly impact our profession.

Another challenging outcome of the pandemic is the reduction in a motivated and available workforce. We have always struggled to recruit and retain workers, but this has gotten much worse. If we want to continue to provide the essential work that we do in safe and reliable ways, we need to work together to find alternative ways to get people interested in our career paths.

As I mentioned during the business meeting, we should put more energy into recruiting students into the profession and the UAA. I believe that we should not only be looking at trade schools, community, and four-year institutions, but also work with high schools and even elementary schools. There are a network of schools and organizations already feeding students into the green industry; we need to be working with them to ensure that we are on their collective radar as a viable option.

I am excited about what the next year will bring for the UAA and the entire VM profession! Our long-term success depends upon our continued efforts around safety, collaboration, and the growth of the organization.



EMPOWERING UTILITY PROFESSIONALS

HELPING YOU WORK SMARTER

- Intuitive onboarding
- Location driven daily work lists
- Easy data entry & status reporting
- Real-time safety information













Executive Director Message



read a quote on social media, derived from British journalist Miles Kington, that said, "Knowledge is knowing that a tomato is a fruit. Wisdom is not putting it in a fruit salad. Philosophy is wondering if that means ketchup is a smoothie." It made me chuckle and then got me thinking more about what the three words-knowledge, wisdom, and philosophy—mean and what role they play in the organization.

UAA committees are the engine of this organization. The committees are made up of volunteers so passionate about specific parts of our industry that they give their time generously to help advance us all. Our industry is blessed with folks that possess the knowledge to perform UVM in every corner of North America at a proficiency that is arguably only getting more advanced. We are equally blessed to have a culture of sharing and genuine concern for each other, where knowledge exchanges are not only welcomed, but sought out.

In the past year, the UAA committees have delivered some great products that help the whole industry. For example, the Professional Development Committee has been working on a UVM glossary of terms that is specific to our space in the arboricultural field. Having a common language that defines meanings consistently across the landscape increases efficacy in communication within our ranks and, perhaps more importantly, outside our ranks. The intent is to continue to build on this resource and expand it into other languages. That expansion idea fostered the development of a

We rely on the input and work of our volunteers to continue to grow and bring new ideas, events, and more to our members. If you are interested in joining a committee, please contact us!

- Editorial Committee
- $\overline{\mathsf{V}}$ Fivents Committee
- $\overline{\mathsf{V}}$ Executive Committee
- $\overline{\mathsf{V}}$ Finance Committee
- $\sqrt{}$ Languages Committee
- Nominations Committee
- Professional Development
- ✓ Research Committee
- ☑ Right-of-Way Symposium
- ✓ Safety Committee
- ✓ Summit Best Practices Committee



Languages Committee that will work to translate resources into multiple languages for use by our teams and the communities where we work.

The Safety Committee and their subcommittees have produced multiple safety professional service announcement (PSA) videos, aimed at both our workforce and arborists not currently practicing in the UVM space. These folks also delivered two inperson safety summits in Indiana and Washington during a time where uncertainty of in-person meetings continues to be a factor. This group continues to seek opportunities to share their knowledge and wisdom to help protect others within our ranks and beyond.

The Events Committee brought us six regional meetings in Texas, New Hampshire, New York, Ohio, California, and Washington and two national meetings where networks were built, ideas were exchanged, and knowledge was transferred. These events require local champions to ensure the content supports the regional need. Discussion on how to expand these programs to bring value to those outside of our organization is ongoing.

The Research Committee and the Environmental Stewardship Committee have been working hard in the areas of habitat management and biological controls within the corridors we manage. They have developed a tool kit that the Outreach Committee is working to market through a network of organizational ambassadors. Their work helps us take our messages further and into more places. They are equipped with messages that are coming from or are the products of other UAA committees.

The Editorial Committee is relentlessly advancing the *Utility Arborist Newsline* magazine content every time they meet. Their work gathering articles that are timely, relevant, and thought provoking is evident in every issue published. I have received many compliments over the past year on the quality of the content as well as the artful compilation of it.

The Finance Committee, Nominations Committee, Executive Committee, and the Board of Directors are the groups that allow the day-to-day operations to flow. These committees work to keep the organization moving forward and are a critical cog in our organization's engine.

When I think about our committees, I think about the people who are taking time out of their own schedules to move us forward. Some bring knowledge to the discussion. Some bring wisdom. Some bring the philosophy. We need all of it. And as our organization continues to mature, we can afford to spend more time philosophizing on advancing our industry. What we also need is you. Your thoughts, your knowledge, your wisdom, and your philosophical vision that can be used to challenge our norms as well as enhance our industry. Think about the potential if you afforded yourself the time to spend at least two hours a month making the UVM space a better place for everyone. *



Let HUB Arbor Insurance Group help you with our holistic risk management approach. Our services can help you attract, educate and retain the best employees.

Highlights include:

- Safety Plan Writing and Documentation
- Onboarding Programs including Training and Skill Assessments
- Leadership Training for Management Involvement and Engagement
- Employee Engagement Programs
- Safety and Cultural Surveys
- Employee Recognition Programs
- Industry Accreditations and Partnerships
- Leading and Lagging Indicators







Mark Shipp, CTSP, CIC

Contact Us Today For Tailored Insurance Solutions

(805) 618-3710 • (800) 566-6464 mark.shipp@hubinternational.com



Editorial Committee Update

By Renée Bissett, Editorial Committee Chair and Director of Marketing and Communications, ACRT Services

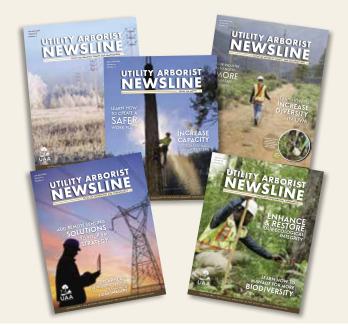
he UAA Editorial Committee strives to produce the premier publication for our industry to support the UAA mission that drives excellence, innovation, and improvement in UVM through professional development, outreach, research, and the use of best practices.

Champion Craig Kelly and I were thrilled when longtime member Michelle Vignault of Clearion decided to accept the position of co-chair. Vignault, always an avid contributor to UAN, is a proud mother of two daughters and has used her editorial aptitude to write her memoir, to be published in 2023. Her skills and involvement as co-chair are important for us to maintain a strong leadership bench and steady transfer of tacit knowledge. Thank you, Michelle!

Published six times yearly, the *Utility Arborist Newsline* is the official magazine of the UAA. Grown from a newsletter to a magazine, UAN is a premium feature for its over 5,000 members. The UAN is also distributed at regional meetings and other industry events and is regarded as a premium professional resource for our industry. It is produced by one of the most engaged committees within the UAA.

The UAA Editorial Committee meets monthly to discuss, brainstorm, and gather content that we hope the industry will find valuable. We spotlight stories on safety, environmental stewardship, best practices, technology, DEI, crisis management, and research. For the 2023 editorial calendar, you will find our core values mixed in with some new topics. As a goal of the team, we are on the hunt for fresh voices and new companies and organizations to participate. If you have an idea for content, please don't hesitate to reach out to one of us.

We'd like to thank all of our dedicated members and content contributors who continue to make this publication a success!





Renée Bissett Editorial Committee Chair



Michelle Vignault Editorial Committee Co-Chair

EDITORIAL COMMITTEE MEMBERS

Craig Kelly, Champion (PG&E)

Renée Bissett, Chair (ACRT Services)

Michelle Vignault, Co-Chair (Clearion)

Danielle Bell (Wright Service Corp.)

Darrell Daniel (SMUD)

Rafael Estevez (ECI)

Amy Fischbach (T&D World)

Stephen Hilbert (Asplundh)

Scott Huffmaster (Mountain F. Enterprises, Inc.)

Lori Jones (Salt River Project)

Steve Lach (T&D World)

Sally Lechin (lapetus Holdings)

Randy Miller (CNUC)

Katie Moehn (Wright Tree Corp.)

Jenna Paul (Davey Tree)

Laura Ribas (Lewis Tree)

Ben Troychak (Quantum Spatial)

Diona Neeser, Program & Operations Manager (UAA)

Renée Phillips, Member Services Manager (UAA)

Dennis Fallon, Executive Director (UAA)

Nadia Geagea Pupa (Pique Publishing, Inc.)

Lindsay Denney (Pique Publishing, Inc.)

2023 EDITORIAL CALENDAR

Jan/Feb Vegetation Industry Perspectives

Mar/Apr Environmental Stewardship

May/Jun The Safety Issue

Jul/Aug Disease is All Around Us

Sep/Oct Working with Government Agencies

Nov/Dec UVM Past and Future *



The Safest Tree is the One You Don't Have to Prune.

Keeping Trees Out of Utility Lines Longer Benefits Everyone.

Scan to download the Executive Summary and see how The Growth Solutions Method can transform your vegetation management.





gs4trees.com/uaa



The Growth Solutions Method™ can lower vegetation management costs, increase safety, and improve homeowner satisfaction. Contact us today to see how!

Acquiring and Retaining a RELIABLE WORKFORCE

By Tara L. Weckerly, Manager-Forestry Services, First Energy

This is the first of a three-part series outlining industry challenges and BMPs derived from the 2022 UAA Best Management Practices Utility Vegetation Managers Summit. Topics covered include UVM workforce recruitment and retention; artificial intelligence for identification and management of vegetation risk; and wildland fire risk mitigation and prevention. Join us in Akron, Ohio, for the next Best Management Practices Summit in May of 2023.



STABLISHING AND MAINTAINING A RELIABLE and skilled workforce has been a focal point Ifor many utilities in recent years. For the last decade, it has become increasingly more difficult to acquire and retain performers for planning and executing UVM operations. High worker turnover, less experienced workforce, and a host of economic factors have contributed to the current labor shortage.

During the 2022 UAA Best Management Practices UVM Manager's Summit, three strategies were presented and discussed that may help move the needle regarding enhanced recruitment and retention methods within the industry. Presentations and round-table discussions focused on developing a sustainable workforce through increased education, merit-based contracting strategies, and establishment of utility-owned tree crews.



0

Round-table discussions focused on developing a sustainable workforce through increased education, merit-based contracting strategies, and establishment of utility-owned tree crews.



 β a

Jimmy Bent (Duke Energy) presenting and leading breakout discussions to promote recruitment and retention strategies for the UVM workforce.

TARGETED EDUCATION

Attempts to develop a skilled workforce have proven successful through increased opportunities with targeted education. Utility arboriculture is currently being promoted as a career with opportunities for multiple levels of certification. California community colleges partnered with the UAA, as well as PG&E, to develop a 5-week, 200-hour curriculum to train UVM arborists and pre-inspectors. The curriculum for arborists includes training in safety, human performance, pruning techniques, chain saw operations, mobile equipment operations, electrical hazard awareness, and climbing.

Pre-inspector curriculum includes safety, tree identification, tree biology, tree risk assessment, and customer communication. In addition to the 5-week training, a clear path is laid out for onthe-job training and certifications that can be obtained as a result. This will supply the area with trained and qualified professionals to help meet the growing demand of the industry.

LONG-TERM PROFESSIONAL GROWTH

The second approach focuses more on retaining the traditional contract workforce. Peer companies, as well as utilities, are competing for the same resources, which have become a limiting factor. The changing laws and requirements for VM have increased the demand for resources, as well as created the need for a more specialized workforce. Southern California Edison has recognized the need to adjust their sourcing strategies to meet the changing demands of the industry. Contracts are focused more on promoting long-term advancement and incentivizing personal and professional growth. Increasing

contractor pay rates has proven to be successful in attracting personnel.

UTILITY-OWNED TREE CREWS

Another exploration for retention of labor in this time of high demand includes the formation of internal vegetation management crews across utilities and peer companies. New Brunswick Power has been working on bringing VM crews in-house. This is beneficial for implementing standard work practices and establishing certifications for job classifications. The curriculum and training consists of focus areas in safety, limbing and bucking, chain saw maintenance, tree felling, rigging, pruning, and tree biology. While still in the pilot phase, the results have been promising. Labor management is more intensive with in-house employees versus contractors, but significant cost savings has been realized with the establishment of full-time employees. This approach also offers more flexibility with crew deployment and a stronger safety culture.

Socioeconomic trials continue to impact the UVM industry's workforce, in conjunction with limited retention strategies and missed opportunities in employee development. Emphasis should be placed on expansion of applications and techniques related to industry professional development and incentives to recruit a new workforce able to progress through technological advancements, which have become common practice among successful VM programs. Strategies need to focus on attracting a workforce, training a workforce, and retaining a workforce. Sharing pros and cons of strategies with peer companies will lead to growth in the industry and greater success for all.







Dwight Carter, Will Nutter Silver Shield Award (left, Dennis Fallon)



Tim Walsh, Will Nutter Silver Shield Award (left, Past President Paul Hurysz)

★ Will Nutter Silver Shield Award

In 2021, the Silver Shield Award was renamed to memorialize the contributions made by Will Nutter, a passionate advocate of safe practices. The award has been redesigned to reflect that honor for future recipients. To receive this award, an individual must demonstrate a significant amount of dedication to advancing safety as top of mind in every action of every job. The 2022 recipients of the award are Dwight Carter (Townsend) and Timothy Walsh (Davey Tree).

Dwight Carter has been active in the industry for 22 years and actively involved in safety for the last 14. He is very detail oriented and consistently seeks to improve the culture of safety. Carter serves as a Regional Safety Manager for the Townsend Corporation. He is a Certified Tree Care Safety Professional and an Authorized OSHA Outreach Instructor. Carter is passionate about safety and serves as a mentor to others. He and his wife, Krista, have been married for 20 years and have three children and one grandson. Carter's favorite leisure activity is riding his Harley Davidson.

Tim Walsh, a Certified Treecare Safety Professional, ISA Certified Arborist, and Certified Tree Worker Climber Specialist, serves as the Health and Safety Director for The Davey Tree Expert Company. He holds a master's degree in ergonomics from the University of Massachusetts-Lowell and is working on his doctorate in ergonomics and safety with a focus on ergonomic efficiencies of different climbing systems. He also holds a master's and bachelor's degree in Urban Forestry from the University of Wisconsin-Stevens Point. Walsh has just started his tenure as president for the UAA, having served on the Board of Directors as a champion for the UAA Safety Committee and as chair of the Professional Development Committee. He is a voting member of the 2022 ANSI Z133 and has been involved with the Accredited Standards Committee Z133 through several revisions. In addition to his work in arboriculture, Walsh is part of the National Occupational Research Agenda Safety Workgroup (NORA) which works to stimulate studies in and to improve workplace practices overall. He also shares his expertise as a representative for the Ohio Bureau of Workers Compensation group in an effort to reduce potential injury or death of tree service workers in Ohio.



★ Rising Star Award

The 2022 Rising Star Award was given to Shawn Huff (OGE Energy Corp.). Huff started as an operations supervisor with Wright Tree Service. The qualities that recognized him as a Rising Star recipient quickly moved him into the role of consulting forester for Davey Resource Group and then propelled him to account manager. Recently he has been overseeing the VM program for Oklahoma Gas & Electric Company, with nearly 860,000 customers to serve. Huff is described as a person with a vision for the untapped potential in UVM, which comes from his diverse forestry background and years of experience in the utility industry.

***** Education Award

In a bit of departure from the usual recipients, this year the Education Award recognized the educational value of the UVM Podcast. Breaking the barrier of traditional mediums, the UVM Podcast has become the first of its kind which directly addresses the challenges faced in the VM industry to a broader audience. Co-hosted by Steve Cieslewicz and Nick



Shawn Huff, **Rising Star Award**

Ferguson, the episodes raise the level of discussion, educating all listeners on a wide variety of challenging concerns faced in the UVM industry, including controversial topics.

Having just celebrated its first anniversary, some of the topics in the introductory year included interviews with industry leaders and influencers; conversations with innovators changing the industry; and introducing technological advancements and CEU opportunities to help their audience meet the demands of continuous education requirements. To be impactful, a podcast needs to have some pretty heavy hitters

as its hosts and their guests, and the UVM Podcast relies on Cieslewicz and Ferguson's knowledgeable guidance and industry connections.

Cieslewicz, a U.S. Navy veteran, is among the most recognized names in UVM. Prior to co-founding CNUC in 1999 and serving as president for 17 years, he led PG&E's VM program for 21 years. His comprehensive resume reflects a tremendous dedication serving to improve and standardize UVM practices, including contributions to the 2003 Northeast Blackout investigations

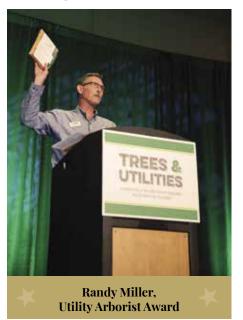


for which he received a Certificate of Appreciation from the U.S. and Canadian governments.

Co-host Ferguson has a background in geographical sciences. He is a Fellow of the Royal Geographical Society and a chartered geographer with leadership positions at several technology companies. His experience broadens the understanding of technological advancements in UVM, including LiDAR-based solutions for T&D and hybrid satellite solutions.

The UVM Podcast is available via Spotify and RSS Feed and can also be accessed through the UAA website at www.gotouaa.org under the "Resources" tab.

★ Utility Arborist Award



The Utility Arborist Award is presented to an individual who has made significant contributions to the field of utility arboriculture. This year, the award recognizes Randall H. Miller (CNUC), whose influence spans across commercial, institutional, and utility arboriculture, as well as state community forestry. He holds an MS in urban forestry from the University of Wisconsin-Stevens Point and is an ISA Board Certified Master Arborist and Certified Utility Arborist, Miller started his career as a Utah state community forester and "retired" in 2017 after serving 23 years in VM at PacifiCorp, where he directed a \$52 million-a-year VM program. He also served on the board of directors for ACRT.

His ongoing contributions to the field that have been recognized by his peers with this award include his work on

the ISA Editorial Board, providing peer review for article submissions to the Journal of Arboriculture and Urban Forestry; service on the ISA Certification Test Committee; and his estimated published works (100+) including Utility Arboriculture: The Utility Specialist Certification Study Guide (co-authored with Geoff Kempter) and Best Management Practices: Integrated Vegetation Management. A former UAA president, Miller serves on the ISA Board, has twice chaired the Edison Electric Institute Vegetation Management Taskforce, chaired the Tree Research and Education Endowment Fund Board of Trustees, and has been president of the Oregon Community Forest Council.

★ President's Award

The UAA President's Award is given by the outgoing president to recognize individuals they felt assisted them or the industry in extraordinary ways before, during, and after their term of office. This year's recipient, put forward by Past President Geoff Kempter, is Jim Neeser (Davey Tree). Neeser has 21 years of experience in the arboriculture industry and currently works as a business developer for Davey Resource Group, a wholly owned subsidiary of The Davey Tree Expert Company. In his role, he provides innovative, customized solutions to the utility market, including investor-owned, municipal, REA, co-ops, communications, and natural gas utilities. Neeser holds



an associate degree from Vermilion Community College and a bachelor's degree in forestry with an emphasis on hydrology and soils from the University of Minnesota. He



is the current treasurer and an executive member of the UAA and has served on UAA committees for 12 years. Neeser lives in Forest Lake, Minnesota, with his wife and two children. His personal interests include spending time with his family, attending games for his son's college football and his daughter's softball. He is also active with the Boy Scouts of America as an Eagle Scout.

★ Lifetime Achievement Award

The UAA Lifetime Achievement Award celebrates a person who has reached many milestones during their utility arborist career. After more than 50 years in the role of utility arborist at Southern California Edison (SCE), Jon Pancoast is about to retire. He has witnessed a lot of industry change in his tenure. Pancoast started his career when there were no compelling rules, regulatory requirements, or recognized BMPs. To illustrate, he started a decade before State Game Lands 33 had begun extensive wildlife research for WZBZ ROW habitats. Pancoast helped influence and drive the development of UVM BMPs across the state and earned the respect of his contemporaries at other utilities in California and across the West. It is fair to say that during his half-century career at SCE, he was directly involved in every major initiative involving trees and power lines on the West Coast.

Pancoast's career also marks a great many firsts. For example, he was one of the first-and currently the longestserving electric utility employee in California to become an ISA Certified



Using GSI Forester to Increase Skills and Job Retention





orkforce retention is an increasingly significant issue for managers around the world. An organization's retention rate depends on a number of factors, including how satisfied employees are throughout the workweek. At GeoSpatial Innovations, Inc. (GSI), we believe that engineered simplicity is a key factor in unlocking better workflow, and thereby retaining a high-quality workforce. That's why we've designed GSI Forester, a VM work execution system, to help streamline work processes through mobile field tools.

How does Forester improve employee retention? Simplicity. We make UVM contractors' lives easier with a modernized approach to VM. Gone are the old days of paper and pencil reporting. Forester allows contractors to record data in an automated, seamless fashion.

Our flexible software solution allows

users to visualize their work using technology instead of paper files and view entire project workloads on a daily and weekly schedule. This simplifies the entire work management process by eliminating the need for travel to and from the office, helping to support an organization's bottom-line costs and reducing employee stress within VM.

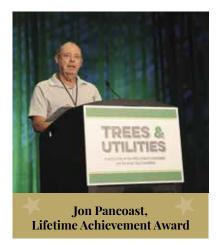
At GSI, we recognize the importance of increasing the level of knowledge of UVM workers, thus improving the perception of professionalism across the industry. That's why we developed Forester-to empower qualified arborists and UVM contractors to exercise and expand their skill set on a daily basis. GSI employees are ISA Certified Arborists/ Utility Specialists, and we sponsor the UAA to contribute to their mission of excellence, innovation, and improvement in UVM.

GSI is a private, woman-owned company providing software and



services to electric and natural gas companies across North America and Australia. The GSI Forester team has developed and optimized this software solution to positively impact workforce retention and the level of contentment within the VM industry. Our company and solutions work to put the right people in the right place at the right time and highlight the high level of professionalism within UVM, while continuing to educate the industry through engineered simplicity and better workflow. *





Arborist. He also helped SCE obtain their first Tree Line USA designation. With over 13,000 employees at SCE, Pancoast was and is the goto subject matter expert for everything related to UVM. He has testified for numerous legal and regulatory cases, participating in proceedings and workshops which outlined California's UVM regulations and

ultimately influenced national standards such as FAC-003. While never seeking the spotlight, his career span enveloped a time of industry definition and he is well-known amongst his peers for his contributions in testing new approaches—tools and technologies that today are respected standards. Most important to Pancoast would likely be his work on public and worker safety education. He recognized early in his career the hazards faced when working or climbing trees near energized lines and he spearheaded numerous outreach efforts to promote awareness and prevent tragic accidents.

Pancoast's accomplished career in UVM exemplifies the vision, knowledge, and personal integrity necessary to make a mark in the UVM field. His example of simply making things better each day will be a guiding force to those who know him and continue the work.

Congratulations to all 2022 UAA Award recipients! Your combined example of excellence sets the trajectory for the future of UVM and provides an example to all who follow in the industry. *



SPONSOR SPOTLIGHT





LIVING THE ARBORMETRICS TAGLINE BY

Putting Employees First

RBORMETRICS is so focused on employee satisfaction and development that we've staked our business on it. "People Are Our Power" is much more than a tagline. It's the driving force in everything we do—and it reflects our belief that our employees are our first and most important stakeholders.

From hiring and screening, to safety training, to proactive communication between staff and management, our approach helps employees learn, grow, and transform, both personally and professionally. And it ensures a feedback loop that delivers consistent insight into what they want and need to be successful.

Happy employees know that they and their work matters. Satisfied employees are mentally present in execution, promoting higher levels of safety. These employees go above and beyond the job description. And, happy employees often stay put. But if an ARBORMETRICS employee takes a position outside our company, we embrace it and celebrate it-just like we do all other employee milestones.

At ARBORMETRICS, we focus on employee advancement and satisfaction. and let the rest take care of itself. It's a formula that has seen our workforce retention rates steadily rise above the industry standard and continue to trend ever higher. Moreover, it's a formula that fosters work ethic, customer care, and individual empowerment.

Our mission is to improve the effectiveness of VM through safe, efficient planning, scheduling, and reporting services. And employee development and support ensure that our people remain our power. To learn more or to see open job positions, access our website at arbormetrics.com/careers. *





ARBORMETRICS — COMPREHENSIVE VEGETATION MANAGEMENT PROGRAMS



PEOPLE ARE OUR POWER

www.ARBORMETRICS.com • 1.866.685.1880 toll free





Thank you to all the UAA Members who joined us for the UAA New Hampshire Regional Meeting on August 11, 2022 at the Urban Forestry Center in Portsmouth, New Hampshire. This was the first meeting of its kind in quite



With seven presentations, we covered a wide array of topics like community engagement, new technology, the latest IVM formulations, and the language of safety. A lot of ground was that was current and relevant to UVM operation in New England in today's environment.

There are many folks to thank for making this day a success. First off, thank you

to ACRT, CNUC, ECI, and Lucas Tree Experts for their generous sponsorships. Secondly, thank you to all the presenters who dedicated their time in preparing and delivering such compelling information. Third, we must

thank the New Hampshire Lands for providing us location, free of charge. Lastly, and once again, we must thank the meeting great turnout, engagement, and participation from been such a success.



A couple of additional highlights from the meeting Executive Director Dennis Fallon make the trek halfway across the country to attend the meeting and to network and discuss how the UAA can meet it's members needs here in New England.

All in all, good food, fitting location, and great people. We look forward to doing it again down the road!

SPONSOR SPOTLIGHT





Thank you, **Tom Rogers**

n 1971, the average tuition at a four-year public college was \$428. A gallon of gas was 36 cents. All In the Family was the #1 TV show. Three Dog Night topped the charts and 8-track tape players were still cool. Amtrak and Starbucks were start-ups. And when the minimum wage was a whopping \$1.60 per hour, our company hired a young rising star—Tom Rogers.

Tom, we honor your lifetime spent at Lewis. When you joined this company, you probably could not have imagined being named President/CEO and leading this company to remarkable heights. You are the perfect aspirational leader and exemplify the boundless career path for all who follow in your footsteps.

Thank you for your vision in leading Lewis to become the employee- and customer-centric company we are today. You ushered us into the digital age. You introduced us to Human Performance and continue to show your steadfast support of our safety journey. You embraced a cultural transformation centered around living our operating principles. Your belief that we could achieve great things helped built the framework for our unparalleled growth and success. And you have inspired all of us to lead with humility, passion, and integrity.

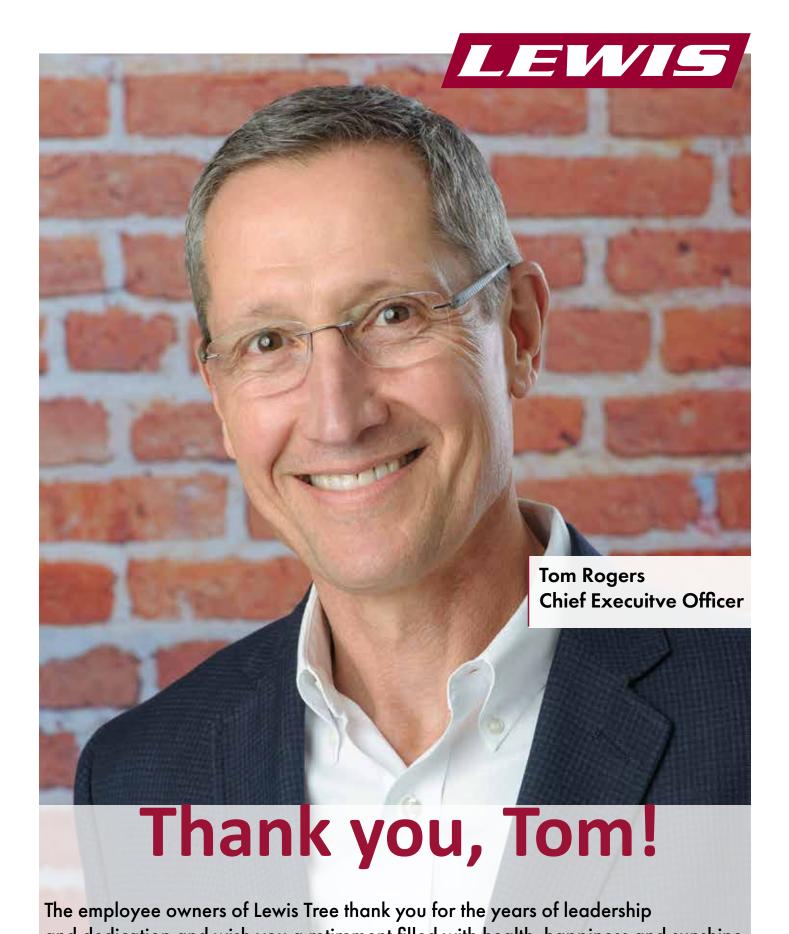
"Be kind. Be wise. Be true."

This statement, posted on the wall of your office, is the perfect summation of your leadership. You are leaving us with the recipe for success. As you've always said, "Working at Lewis is easy: always do the right thing, and love the craftworkers."

Thank you for leaving us in capable hands. You will forever be missed. Job Done Right.

-The employee owners at Lewis ℝ





and dedication and wish you a retirement filled with health, happiness and sunshine.



was coined after millions of Americans voluntarily guit their jobs in 2021, which upended the relationship between workers and the labor market. The Great Resignation, arguably triggered by the COVID-19 pandemic, was a turning point in the employee recruitment and retention landscape, and the UVM industry is no exception. A new playbook for recruitment and retention has been written, and employers must understand these trends before developing a successful strategy. After all, employees are the heartbeat of any company. As members of the human resources and training and development departments at Wright Service Corp., we have worked together to understand trends for recruitment and retention across many different industries.

This was a collaborative article written by members of the Wright Service Corp. human resources department and training and development department. Wright Service Corp. (WSC), a family of companies operating in several environmental services industries, is the parent company to several companies that operate in the UVM industry, three that include Wright Tree Service, CNUC, and Terra Spectrum.

WHAT EMPLOYEES ARE SEEKING

Quality compensation and benefits continue to be top considerations for employees. In recent months, these have become even more significant for recruitment and retention due to the labor market and competition for candidates. Quality compensation and benefits is a broad bucket, but can include things like paid time off, profit sharing, retirement contributions, medical insurance, and job flexibility. Flexibility might mean being adaptable to changes in employee schedules, due to things like school or daycare drop-offs or pickups. Allowing employees the opportunity to establish their own work-life balance is important for retaining employees and attracting new ones. Time off is another element that employees are becoming more vocal

about and advocating for during the hiring process. They want to know they are going to work for a company that will offer them a reasonable amount of time off to balance their life outside of work.

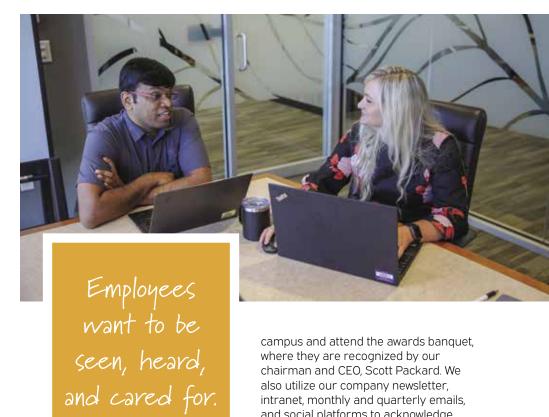
The training and development of employees are other big focuses in many different industries, UVM included. Employees like to know that the company is investing in them and the skills they provide to the job. Providing employees with the resources and training to be successful in their role is vital, but so is their continued development. This leads to another trend: safety. People want to work in a safe and inclusive environment, and training can be a key asset in creating that environment. In addition, it is important to review and continue to improve the onboarding process. The initial overview and training reiterate to your new employees the company's values, culture, and the importance of their role.

WSC has a training and development department that focuses on ensuring employees are trained and that their career is nurtured. That is why we have a digital learning management system (LMS) that we call Wright Service Corp. University. This is an online learning platform where we are able to reach employees in all areas of the U.S. by delivering and assigning custom content online, like training videos, learning modules, training materials, and more.

EMPLOYEE FEEDBACK

Soliciting feedback is important to gauge the climate of the employees companywide. In 2022, WSC added a role to oversee the company's compensation and benefits team and program offerings. This year, our compensation and benefits team administered an employee benefits survey, one way that employees across our entire family of companies could provide feedback. The data collected allowed us to learn what pay, benefits, and perks were most important to our workforce. Once the feedback was reviewed, a plan was developed to ensure the feedback did not go unnoticed. The company is working toward making positive changes that meet the employees' requests where it is feasible. The feedback may influence changes to existing programs and provide the team with information on what additional programs or changes should be considered.

Long-term, we plan to ask for feedback on a more frequent basis in the form of



pulse surveys, which will allow us to gain insight for more impactful and immediate change. This would allow us to know about issues that arise and potentially plan to dynamically make changes.

In addition, the training and development team requested feedback through a learner engagement survey. This asked employees what training they would like to see more of in their role. The feedback helps to improve the company's offerings on our LMS and how those are delivered and shared based on the employee's preferences.

RECOGNITION WITHIN THE COMPANY

Employees want to be seen and recognized for the hard work they put into their role. Although this may look different across our family of companies, many company executives recognize employees on their birthdays and anniversaries. Every year, we host an annual awards banquet that celebrates employees with 5, 10, 15, 20, and 25+ years of service. This celebration is in addition to what the employee's supervisor may do to acknowledge the work anniversary. Awardees hitting milestones with at least 10 years of service have the opportunity to visit the North American headquarters in West Des Moines, Iowa, to tour the

campus and attend the awards banquet, where they are recognized by our chairman and CEO, Scott Packard. We also utilize our company newsletter, intranet, monthly and quarterly emails, and social platforms to acknowledge employee accomplishments, milestones, promotions, and compliments from clients. This recognition and acknowledgment is an impactful way to recognize and thank our employees for the work they do, and gives us the chance to further connect and engage with them on a deeper level.

JOB GRATIFICATION

At our core, humans yearn for gratification in what they do-whether in our personal lives or on the job. We have found that many of our employees want the ability to connect with the communities they serve and feel like they are making a difference. But gratification comes in all shapes and sizes and is entirely dependent on the individual. Job gratification might mean having the chance to mentor someone else in the company. To another person, it might mean taking on a bigger project or being given high-level tasks. For some, it could mean seeing the bigger impact of the job they are doing every day.

Many of the positions in the UVM industry are customer-facing roles, giving employees the opportunity for community outreach and educating customers about the work being done and why it is necessary. Continuous training on this provides an employee the tools and knowledge to educate others.

If an employee is passionate about the industry and their job, they become more invested in these communities,



heartbeat

and there

is no better

investment.

whether that is through volunteering, donating, or participating in community events. This may lead to job gratification and overall satisfaction with the role they play at work.

ANOTHER VIEW ON RETENTION

The leadership team at CNUC, a subsidiary of WSC, provided some insight on retention and what they are doing to invest in their employees. Matt Searels, vice president of CNUC, said, "It's about the people; it's not just business." This mindset has helped CNUC establish different programs within the company that help them strive toward their recruitment and retention goals. The leadership team likes to put their personal touch on things. Whether that is

a call on an employee's anniversary or congratulating them on earning a certification, there is always something leadership can do to show their investment in the employee. CNUC continues to brainstorm and deliver new ways to do this to benefit employees.

As we touched on earlier, employee feedback is important to allow employees to provide input and allow leadership an opportunity to listen to what employees have to say. CNUC sends out a yearly survey that is reviewed, and a plan is put

in place to act on the feedback received. Since surveying CNUC employees, the following has been established:

- A recruitment committee
- A diversity, equity, and inclusion committee
- Educational program opportunities
- Materials and resources to showcase career projection, such as a career path trajectory

It is highly encouraged to have a representative from each division on the committees to ensure you have proper representation and that voices are heard from across the business.

CONCLUSION

It should be a company-wide effort to transform your recruitment strategy to meet the demands of the current labor market and increase retention and morale. Employees want to be seen, heard, and cared for. There are many different strategies for improvement; however, it is important to keep in mind there is not a cookie-cutter answer. Investing in your employees will benefit your company in both the short-term and the long-term. Employees are the heartbeat of your company, and there is no better investment. *



Do More For Less With FieldNote

GIS Integrated Workflow Management Platform

- + Manage field assets, schedule work and record time digitally
- + Easy to follow in-person/virtual trainings
- + Deploy in days for minimal cost

terra spectrum

Learn more at www.terra-spectrum.com



INVESTING IN WHAT MATTERS:



Recruitment and Retention

By Bryan Durr, Director of Operations, ACRT Pacific and Kaylynn Ruf. Director of Human Resources, ACRT Services



n arborist should never trim a tree without a good reason, and knowing how and when to prune is necessary. The same principles apply to recruiting. Recruiting goes beyond filling empty positions. If companies recruit with a purpose, they can pinpoint whether they're looking for premium talent to prepare for growth and identify future leaders; increase morale to improve engagement and create healthier workgroups; or establish or further strengthen their competitive advantage as a valueadd for clients—all while creating employee diversity to show evidence of a mature organization.



PREMIUM TALENT

We like to use a football analogy of drafting a team. Better talent in organizations creates a healthy, competitive spirit. Once an organization's needs are filled, sourcing and acquiring talent will breed healthy competitiveness and set your organization up for growth when the opportunity arises.



INCREASED MORALE

Maintaining staffing levels creates healthier work groups, eliminates perceived time pressures, and as a result, reduces incident frequencies. It also establishes a more satisfying work-life balance and happier employees.



COMPETITIVE ADVANTAGE

Our industry is in a state of resource shortages. Trumping the competition in hiring qualified resources offers a competitive advantage, and likely increases requests to fill vacancies or become the preferred supplier when starting new projects.



DIVERSITY

Diversity is a core value for many organizations, including ACRT Services and our family of companies. Hiring a diverse workforce demonstrates inclusion and a culture of acceptance. Professionals entering the workplace evaluate a company's diversity as a point on their decision-making matrix.

An article published by Indeed¹ shared, "When you hire the right candidate for a particular position, you avoid undergoing additional job searches for another professional. An employee who is a good fit for your company often continues to develop their skills and improve their performance within your organization once hired."

When it comes to recruiting best practices, it's important to remember these four points:

- **Sourcing.** Use a variety of sources, make contacts frequently and follow up, and use clear messaging.
- **Reviewing and contacting applicants.** Act fast! If you don't contact your candidates quickly (via call, text, and email), chances are they will have found another job.
- Interviewing. Consider using Behavioral Based Interviewing (BBI) by asking questions that prompt the candidate to give specific examples of their past

behaviors, which leads to a better quality of hire and lower turnover.



Internal team setup. The ideal way to structure a team to maximize quality hiring capacity is to dedicate one recruiter for every 25 requisites per business unit.

If your organization has a recruiting infrastructure in place, it's possible to find success with little monetary investment. Remember to utilize your applicant pool from your tracking database; a recruiter or hiring manager can review prior applicants and reconnect. Reaching out to organization alumni is also a great opportunity. As many of us can attest, the grass isn't always greener.

On the flip side, there are high-cost investments at recruiters' disposal. By placing heavier investments in LinkedIn and Indeed, organizations have access to greater candidate networks.

If an organization decides to invest in its recruiting strategies, keep in mind that sourcing options may present a low ROI. In our case, billboards, print/newspapers, mobile ads, and industry publication lists have proven to be routinely unsuccessful. Using industry publication lists to source candidates is taboo. We all swim in the same pond-don't muddy the waters.

To evaluate an organization's recruiting ROI, it's important to look at the time it takes to fill each position, offer-acceptance percentages, the top applicant and hiring sources, the cost per applicant, and the cost per hire.

The "5 Benefits of Hiring the Right Person" on LinkedIn² shared, "Investing time in the search can save you money in the long run. Again, if your company is hurting, it's difficult to be patient. However, slowing down and waiting for the right person means that you probably won't have to go through the search again

anytime soon. Sifting through applications and conducting interviews takes time and money. The more often you have to replace employees, the more money it costs."

Indeed also suggested asking the following questions to evaluate the success of an organization's recruitment process:

- How long did it take the new employee to effectively complete their tasks?
- · Is the employee interacting well with their peers?
- How has the business grown since the employee became a member of the team?
- At what stage of the recruitment process did I realize the candidate was the right choice?
- · What do I know now that I wish I'd known before I started searching for a new hire?

Recruitment and retention go hand in hand. High turnover in the first 90 days of employment is a sign of low candidate quality. As organizations invest in recruiting, this metric should decrease if recruiting is done successfully. Likewise, as organizations fill roles with quality hires, the number of open positions due to turnover will also decrease.

Investment in recruitment is a marathon, not a sprint. With improved recruitment and retention practices, organizations will see a long-term ROI, develop established business processes, and can deliver field training to their employees sooner.

With successful hiring will come increased retention. And hiring quality candidates will contribute to lower turnover rates.

ABOUT THE AUTHORS



Bryan Durr is the director of operations at ACRT Pacific. He has 18 years of industry experience. During his career in VM, Durr has managed or been directly involved with the implementation of UVM, state and county, and traditional forestry contracts throughout the U.S. He is recognized by the ISA

as a Certified Arborist and Certified Arborist Utility Specialist. Durr holds an associate degree in applied science and forest management from the School of Natural Resources at Hocking College, located in Nelsonville, Ohio.

Kaylynn Ruf is the director of human resources at ACRT Services. She joined the ACRT Services family of companies in 2020 and most recently served as the human resources manager. Ruf holds a Bachelor of Science in biology from Loyola University

Chicago and a master's degree in business administration and management from the Quinlan School of Business at Loyola University Chicago.

WORKS CITED

- Indeed Editorial Team, "How to hire the right person (and why it's important)," Indeed Career Guide, August 24, 2021, www.indeed.com/career-advice/career-development/howto-hire-someone.
- 2. Brad Anderson, "5 Benefits of Hiring the Right Person," LinkedIn, August 12, 2020, www.linkedin.com/pulse/5-benefits-hiring-right-person-brad-anderson.



YOUNG PROFESSIONAL PROFILES

Reprinted with permission from City Trees magazine, produced by the Society of Municipal Arborists.



rowing up in Detroit with an early appreciation of STEM, I graduated from Eastern Michigan University in August 2022, receiving my bachelor's degree in interdisciplinary environmental science and society, with a concentration in environment and society/political science/law, and a minor in plant biology. I have also completed the Certified Nonprofit Professional credential in 2020. I plan to found a nonprofit to assist those in the process of transition and evolution, due to my experience as a single mother and pharmacy technician. I aspire to teach civic engagement with respect to financial literacy, community gardening, and improving infrastructures and landscape designs to enrich biodiversity and human-plant connection, especially

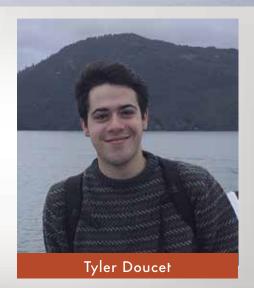
for those who endure health/wealth disparities due to their environments.

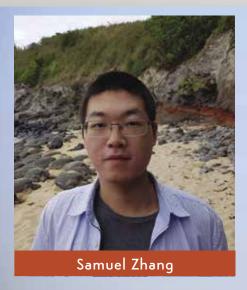
I plan to give back to Michigan communities by starting a nonprofit, Acts of Random Kindness, I hope to educate and find inexpensive means for communities to adopt an ecoconservative lifestyle. My hope is to live in Chicago and work as an environmental attorney and pursue a degree in municipal arboriculture. I currently serve as an Advise Michigan AmeriCorps member in partnership with Michigan College Access Network at UPREP-UPA High School in Detroit. I volunteer at Growing Hope in Ypsilanti and Detroit Hives, The Greening of Detroit, and ReLeaf Michigan.

obtained my Bachelor of Urban Forestry from the University of British Columbia because having lived my whole life in Canadian cities, I was incredibly enamored with the intersection of people, trees, and the built environment. I developed an interest in municipal forest management, environmental governance, and urban forest resilience, which I'm pursuing in my Masters of Environmental Studies at Dalhousie University in Halifax, Nova Scotia. My thesis research explores the interactions between nongovernmental organizations and municipal governments in the delivery of urban forest programming and policymaking, due to my interest in both the biophysical and human-social

elements of urban forestry.

I have held two internships with Dalhousie University and Halifax Regional Municipality's Urban Forest Department. I collected data on and inventoried Halifax's newly planted street trees, which I will use in a research project about factors contributing to mortality in juvenile street populations in Halifax. Also, I have worked as a research assistant for Natural Resources Canada, developing a literature review of climate change adaptation and mitigation implementations in the Canadian forest sector. I hope to pursue work as a consultant-involving travelmanaging, planning, and policy making for urban forests, green spaces, and all associated urban biodiversity.



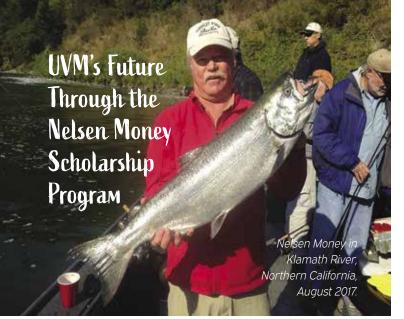


fter moving from China to Vancouver and exploring areas like Pacific Spirit Regional Park and University of British Columbia's Botanical Garden, I began studying urban forestry at UBC's Faculty of Forestry in 2017. Urban forests are essential to urban systems, creating habitats while providing physical, social, and environmental benefits. I graduated from my master's program in May.

I started working in the City of Surrey, BC Urban Forestry Section, mostly working across different parks. Our crew specializes in natural area operations, like removing invasive species in critical habitats and cutting down danger trees.

A massive spruce fell across the pond in Crescent Park after an intense storm in May, nearly missing an alder and pedestrian bridge. Our crew treated and reinvented the damage, creating a new habitat corridor that allows animals to use the spruce trunk to cross the pond to other forested areas.

Our parks and natural environment are extremely valued by the public, and working for Surrey provided learning opportunities such as native and invasive plant identification, power tool training, and how to respond to public inquiry and service requests. I hope to share my passion and maintain the beautiful urban forest we all love. *



By Craig Kelly, Principal Land Consultant-Land Operations, Natural Resource Management, Pacific Gas and Electric Company

n May 2020, the utility arborist industry lost a great mentor and special friend: Nelsen Money. Shortly after Nelsen's passing, discussions sparked the idea of creating what is known today as the Nelsen Money Scholarship Program. Within months, the idea of celebrating this special man came to fruition, and the Nelsen Money Scholarship Committee awarded the first scholarship in the fall of 2020 for the following school year. And this past spring, two scholarships were awarded for 2022.

Nelsen focused on others in our industry, supporting UAA Members, helping others with industry research, and—most of all—educating the younger people by building their competencies, enabling them to compete for positions in the UVM industry. He would coach, support, and mentor up-and-comers regularly and enjoyed every second. Nelsen said to people working for him at PG&E, "Give yourself credit. I do. You are contributing to the safe operations in this division, which is three to four times the size of a utility in the Midwest. You are good at what you do, you'll be better tomorrow, you'll be better next week, and you'll be even better next year."

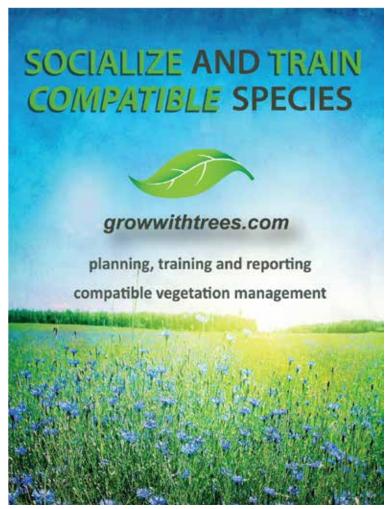
Nelsen and I frequently talked about what he wanted to leave behind for others in the industry after he retired. He told me, "I want to leave a legacy where a person interested in our industry felt I had a helping hand in getting them to the level of success they dreamed of." Without question, there are many of you reading this piece who were influenced by Nelsen this exact way.



The Nelsen Money Scholarship was created to continue his legacy by helping others become professionals in the utility arborist industry. Geared towards programs (minors, majors, concentrations/options) related to the practice of arboriculture, forestry/urban forestry, natural resource management, and/ or UVM, this scholarship is unique in that it not only provides financial support for current university and college students for tuition purposes, but it also offers recent graduates from the same curriculum a chance to attend an upcoming Trees & Utilities conference—the leading conference in today's utility arboriculture industry.

The Nelsen Money Scholarship Program opens its application period after the first of the year through early spring, and requires certain documentation to be considered for eligibility. Go to the UAA website (www.gotouaa.org) to see additional details. The Nelsen Money Scholarship Committee urges those interested in the scholarship to apply when the process opens, so keep an eye out for more information regarding the upcoming application timing on social media, member updates through email, and the Newsline.

Lastly, the Nelsen Money Scholarship Committee strongly encourages companies and individuals to donate to keep the scholarship program funded. Donations from a company automatically make the company eligible for the UAA Partners in Excellence Award (PinE), which you can learn more about on the UAA website. Remember, your dollars will go toward supporting our young, interested students looking to pursue the careers many of us have enjoyed. Helping these young people, our young future colleagues, is what Nelsen did, and the Nelsen Money Scholarship Program is intended to keep his legacy strong. Donate today! *



WE APPRECIATE OUR UAA **UTILITY SUPPORTERS AND CORPORATE SPONSORS**



The Utility Arborist Association is pleased to have an outstanding group of utility supporters and corporate sponsors. We encourage you to visit their websites to explore their products. services, and mission.

UAA Corporate Sponsors



overstory















































Your sponsorship makes a difference!

Sponsorships support webinars, meetings, our website, marketing and branding, communications to students of our industry, and in many more areas the UAA is striving to reach. Scan the QR code to download our 2022 sponsorship form!



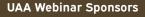
Group Membership Supporters

















2021 PinE Award Recipients

PARTNERS IN EXCELLENCE PROGRAM

he Utility Arborist Association is the leading North American organization for the enhancement of quality utility arboriculture and right-of-way (ROW) management. Our success relies on the support we receive from all of our members, sponsors, and

Companies that go above and beyond to support our mission will be recognized annually through our Partners in Excellence (PinE) Program.

Membership, sponsorship, advertising, active committee volunteerism, and many other means have been quantified and assigned a value, all adding up to equal a PinE Score.

All applications and supporting material of qualifying companies are reviewed and selected by the PinE Committee

We want to take this time to congratulate and thank our 2021 PinE Award Recipients.

Your continued support of the Utility Arborist Association is greatly appreciated on many levels.

PLATINUM AWARD



GOLD AWARD





SILVER AWARD













BRONZE AWARD











The California Community College **Utility Line Clearance Arborist** Training Program Continues to **Expand Throughout the State**

By Sally Lechin, Director of Marketing and Communications, lapetus Holdings, LLC, in collaboration with Annie Rafferty, Director of Workforce Training and Development, Butte College, and Larry Abernathy, Owner, Abernathy VM Service, LLC

he emotional opening statement Oscar Rosa selected for his graduation speech, during the 33rd graduation of the California Utility Line Clearance Arborist Training program held this past Aug. 19, reflects the value Rosa and his classmates place on their forestry careers. Rosa guoted Victor Sullivan from video game Uncharted 3: Drake's Deception, "We don't get to choose how we start in this life. Real greatness is what you do with the hand you're dealt." This same value is shared by PG&E (Pacific Gas and Electric), SDG&E (San Diego Electric & Gas), and most recently, SoCal Edison (Southern California Edison), as witnessed by their continued support of the training program.

At the ceremony, graduate Alan Pacheco added, "When I was 18, I went to Portland, Oregon, and I saw a vast, dense forest for the first time in my life. I immediately took a fondness to all the green I saw, and I knew I wanted a career with forests. I never thought or imagined it would be like this. A couple of years and

a few jobs later, I found myself in the California Conservation Corps. The main reason I like this program is because it offers extensive trainings."

According to Larry Abernathy, the retired Davey Tree Expert Company expert tapped by the UAA to lead the program, "It is heartwarming to see how far we have come with this training since 2019. Utilities in California are reaping great rewards towards safety, recruitment, and retention of trained entry-level arborists. This program has been made possible because of PG&E's leadership in our industry, and the financial support they have given statewide. As a result, other investor-owned utilities have joined in with their support to keep the program sustainable. SDG&E has provided funding to keep the training programs for the next three years. Now SoCal Edison has also made inquiries with the California Community College System, and we are currently working with them to sustain the program."

California Utility Line Clearance Arborist **Training: How It Started**

In June 2019, PG&E reached out to the UAA to find a way to enable standardized safety workforce training to attract, train, and retain an additional 3,000 skilled utility arborists. PG&E contracted the Butte College Workforce Training and Development unit to lead development of a statewide standard training program with key stakeholders, defined by industry as the Utility Line Clearance Arborist Training. Committee members included key stakeholders SMUD; SoCal Edison; SDG&E California Utilities; IBEW 1245, 47 and 465; Utility Arborist Association; Tree Care Industry Association; California Labor Agency; local California Workforce Innovation and Opportunity



Offices; six Prime California Utility Industry Contractor Employers; and ten California Community Colleges Contract Education

That same year, Governor Gavin Newsom signed a series of bills aimed at improving California's wildfire prevention, mitigation, and response efforts. And he also announced a \$75 million program to mitigate the impacts of PSPS (Public Safety Power Shutoff) events with specific allocations. A statewide training program was rolled out alongside these efforts to support these initiatives and accelerate line clearance throughout California.

The Statewide Utility Line Clearance Arborist Curriculum

Kicking off in 2019 through 2020, the core industry and Butte College team designed a 200-hour, five-week Utility Line Clearance Arborist training based on a systematic DACUM (Developing A Curriculum) approach. That year, the pilot was delivered at Butte College in Northern California with six industry-certified employers. This statewide \$6.25 million PG&E contract supports the training of 925 newly skilled pre-apprentices across ten colleges through June 2023.

To date, 327 candidates for the

arborist training have graduated from 34 classes across eight California colleges. 145 candidates completed the Pre-Inspector Level 1 training held November 2021 through June 2022, and all have been hired.

The statewide program launched with several colleges from August 2020 through January 2022:



This was accomplished with support of key stakeholders UpSkill California (a Community College collaborative), PG&E, the UAA, Tree Care Industry Association, the ISA, Cal/Nevada JATC, Arborworks, Davey Tree Surgery, Mountain F. Enterprises, Mowbray's Tree Services, Utility Tree Services, Wright Tree, Family Tree Services, Rancho Tree Services, Academy Trained, Firestorm Wildland Fire Suppression, Inc., and California Conservation Corps.

The industry-recognized training prepares workers to perform one of the most hazardous jobs in California. The five-module curriculum includes certifications in OSHA 10, First Aid & Safety, Flagger, and Electrical Hazard Awareness Program.

The statewide California plan is funded to continue expansion serving Santa Rosa Junior College, Shasta College in the north, and El Camino Community College in the south, for the period ranging from January 2022 through June 2023.



California Utility Vegetation Management Level 1 Pre-Inspector Training

In December 2020, PG&E contracted \$3.5 million with Foundation for California Community Colleges' UpSkill California organization to train 1,250 workers and develop a standardized California Community College workforce training program. The project management is subcontracted with Butte College, leading the design of the Utility Vegetation Management Level 1 Pre-Inspector program with seven utility prime preinspector contractors and technical utility experts. This expansion, designed to address the worker shortage, is funded for up to five California Community Colleges.

The Level 1 Pre-Inspector **Training Curriculum**

This 80-hour, two-week program was successfully delivered in October 2021 with 15 regional UVM inspector supervisors. Trainees practice how to examine circuits for hazard trees, encroachment, potential encroachment. and evaluate clearances. As of July 2022, ten academies and 145 new-hire workers have completed the 40% theory and 60% tree inventory risk assessment simulated field work, earning an 80% performance rating or greater.

The statewide level 1 pre-inspector program is currently funded from August 2022 through December 2023, to continue expansion with nine California community colleges.

The effort was accomplished with support of key stakeholders:

- UpSkill California (a Community College collaborative)
- PG&E
- The UAA
- Tree Care Industry Association
- The ISA
- Master Trainer Kevin Eckert—an ISA Certified Master Arborist, ISA Certified Utility Specialist, ISA Tree Risk Assessment Qualified Instructor, and owner of Arbor Global USA/Arbor Global (Hong Kong) Ltd.
- CN Utility
- Davey Resource Group
- Lakeside Environmental Consultants, IIC.
- Mountain G. Enterprises.

The Industry Steps up with Support—and the Rest of the **Country Takes Notice**

The UAA (5,000 members), ISA (25,500 members), and the Tree Care Industry Association (2.300 tree company owners) have maintained their commitment of providing industry training resources and public awareness necessary to advance the mission of establishing the standard in California, with a vision of expanding it across the nation. As proof, the University of Wisconsin-Stevens Point, Minnesota State University, and Front Range College in Colorado have officially expressed program support.

The arboriculture industry has poured out its support to California Community College for the successful Utility





Vegetation Management Arborist and Level 1 Pre-Inspector Training programs. Several awards from these nonprofit associations have been presented at their national annual meetings. These include the UAA President's Award (2020), the UAA Education Award, and the San Diego Urban Forestry's Best Urban Forestry Project (2021). In 2022, the Tree Care Industry Association granted the Volunteer of the Year Award to Larry Abernathy for his significant program contributions in leading the tree care industry towards defining, expanding, and embracing the next generation of commercial arborists.

Additional Sponsors Are Needed to Continue Sustaining the **Program**

According to Annie Rafferty, director of workforce training and development of the Butte College program, "The UAA, Larry Abernathy, and I have been working with California utilities to continue the stream of investments and ensure the sustainability of the program coming from the generosity of the utilities. It was initially funded by PG&E and most recently by SDG&E. Now we're inviting utility industry key stakeholders across the country to participate by replicating the program on a national scale."

For information about how to become a program sponsor, please contact Annie Rafferty at (530) 879-4350 or raffertyan@butte.edu. *



SPONSOR SPOTLIGHT



Throughout the years, Bryan Durr has excelled in each role he's held within ACRT Services' family of companies. Over nearly two decades, he has held numerous positions including an operations manager in Florida, a business development manager, and now as ACRT Pacific's director of operations.

As director of operations, Durr holds himself responsible for sourcing premium talent, increasing organizational morale, creating a competitive advantage, and fostering diversity throughout ACRT Pacific.

He likes to compare recruiting to arboriculture. "An arborist should never trim a tree without a good reason, and knowing how and when to prune is necessary; the same reasons apply to recruiting," said Durr.

With almost two decades of VM

experience, Durr knows a thing or two about tree trimming and pruning. He is an ISA Certified Arborist and utility specialist. In addition to the professional certifications Durr has earned, he also holds an associate degree in applied science and forest management from the School of Natural Resources at Hocking College, located in Southeast Ohio.

In addition to this work for utilities throughout the U.S., Durr also served as an employee board member, chair of the safety committee, advisor to the area safety representatives, and historian of ACRT Services' employee stock ownership program (ESOP) committee.

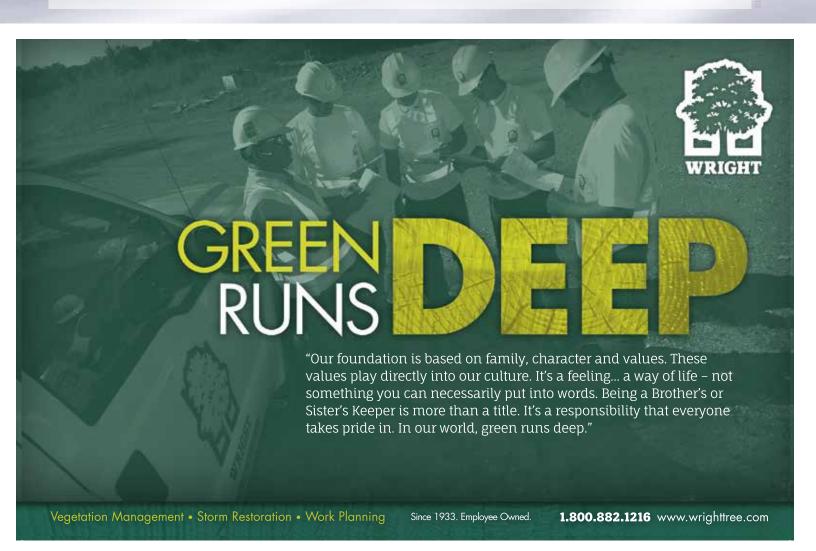
"I'm honored to play a role in advancing not only ACRT Pacific's workforce but our industry as a whole," shared Durr. "It's key to always provide



guidance for our employees—whether it's turning mistakes into opportunities or providing coaching so they're set up for success in their projects. It's our job as leaders to give them the foundation they need, now and for future roles."

To learn more about ACRT Pacific or joining Durr's team, visit pacific.acrt. com. *

TOCK/LARYSA PASHKEVICH





Chris Kelly (center, in above photo) is with part of the Clearion team at the Zoo Atlanta after rolling out a sustainability program, which allowed GA Power to donate cuttings from vegetation management to feed key browser animals, like the elephant. The program created innovative technology for Clearion customers and created a valuable engagement opportunity for employees based on Clearion's core values.

he competition for talent today is fierce, and retention is now the top concern. According to the most recent Gallup report on employee engagement, only 32% of employees are actively engaged at work, and 18% are actively disengaged. This means that nearly two-thirds of workers are not fully invested in their jobs, and one in five are actively trying to leave.

An organization's culture has a direct impact on its ability to retain employees. Employees who feel valued by their company and have a sense of purpose tend to stay longer than those who do not. That's why many companies have started integrating sustainability initiatives into their workforce retention strategy to improve employee engagement, drive innovation, and strengthen culture.

Why Is Sustainability Important?

The business case for sustainability is compelling. Numerous studies have shown that companies with strong sustainability programs are more profitable than their competitors (Kelly 2022). Furthermore, sustainability-focused companies have higher rates of employee retention, customer engagement, and innovation.

Sustainability initiatives also help companies attract and retain the best employees. They show employees that the company is committed to making a positive impact on communities and the

environment. Sustainability initiatives also present a great opportunity for companies to enhance their employer brand and attract top talent by appealing to candidates who want to work for a company that has a positive impact.

Millennials—who are now the largest group in the workforce—are particularly drawn to companies that have strong sustainability initiatives.

Ensure Employee Engagement

Companies that have employees who are highly engaged—who have a deep connection to their work and a strong drive to succeed—have better and more profitable outcomes. Engage employees through sustainability initiatives by making it part

of their job description and offering them the opportunity to be involved in projects. Sustainability projects create a sense of pride and showcase meaningful connections to the community.

Create a sustainability committee or steering group where employees can engage in meaningful discussions about how to build sustainability initiatives at their company. Host company-wide sustainability events, such as a waste reduction challenge, as a way to bring employees together and encourage collaboration.

Drive Innovation

Innovation is key to outlasting competition and staying ahead of the curve. Studies show that companies with strong sustainability programs are more reliant on innovation than those without such initiatives. Sustainability initiatives encourage employees to find creative solutions to problems, making them the perfect way to spark innovation at your company. Integrate sustainability initiatives into your internal innovation strategy to spark creativity within departments, providing your employees with new challenges that they can solve through sustainability projects. Incorporate sustainability challenges into hackathons and innovation challenges to spark creativity and encourage employees to think outside the box.

Strengthen Culture

Companies that have a strong connection with their employees are more successful than those that don't. Sustainable initiatives can help you develop a strong company culture by bringing employees together and engaging them in meaningful initiatives. Strengthen your company culture by assigning sustainability projects to specific departments, such as your sustainability or environmental impact team. Hold regular meetings to share progress and encourage cross-department collaboration.

Showcase Company Values and Beliefs

Sustainability initiatives can help companies showcase their core beliefs and values to employees and clients. Sustainable practices are inherently connected to core values, such as health, equality, and trust. Build connections between sustainability initiatives and company core beliefs and values to encourage employees to fully engage in their work-and feel like the work they are doing matters. Create visual content, such as posters, that features sustainability initiatives and shows how they relate to your company values. Use company communications and meetings to highlight sustainability initiatives and discuss their importance.

Bottom Line: It's a Win-Win!

Companies that have integrated sustainability initiatives into their business models have been shown to outperform their peers financially. Sustainability initiatives can also help attract and retain top talent and build trust with clients. Furthermore, they can help companies connect with their customers and communities in new and meaningful ways, creating positive impacts that last long after your company has exited the industry.

Citation

Chris Kelly, "The Switch to the Triple Bottom Line," T&D World (May 9, 2022) https://www.tdworld.com/ vegetation-management/article/21240755/theswitch-to-the-triple-bottom-line.

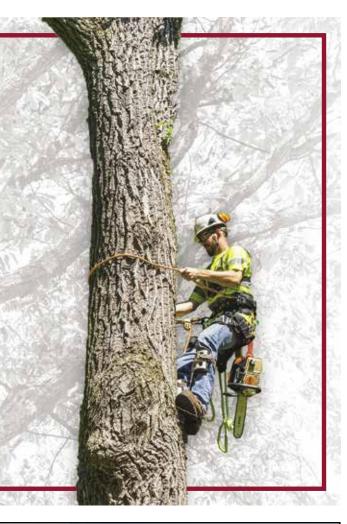
Scan the QR code to watch an episode of the Trees & Lines Podcast with Chris Kelly, CEO of Clearion.



100% Employee Owned www.pennline.com 724.887.9110

Penn Line Tree Service, Inc.

- · Roadway Tree Trimming and Removal
- · Utility Line Maintenance
- · Right-of-Way Clearing
- · Herbicide Application
- · Storm Restoration
- · Mowing







owerlink has a long-established network of managing fuel loads as part of its VM programs. Fuel load assessments are performed as part of land inspections with results recorded into our asset management systems. Dedicated easement maintenance officers perform the assessments and are trained in the use of the Overall Fuel Hazard Assessment Guide. Increasingly, technologies (e.g., LiDAR, satellite imagery, and drones) are enhancing our evaluation of vegetation and fuel loads.

The transmission line that traverses Mapleton National Park connects bulk generation from Central Queensland to Queensland's large population centers in the South East. It is designed to operate at 275 kV and was commissioned in 1976. Vegetation management is performed in accordance with the 2016 QESI Code of Practice,² which includes sections specific to vegetation and fire management. These principles have been applied in the development of the work methods applied in the Mapleton National Park trial.

Control burns are deliberately lit fires used to reduce fuel loads prior to wildfires. Queensland Parks and Wildlife Services & Partnerships (QPWS&P) have an ecological basis for fire management, which also considers protection of life, property, and critical infrastructure.3 QPWS&P have recognized Powerlink's high-voltage transmission lines as critical infrastructure, protecting these as a priority.

The Queensland Bushfire Plan⁴ also recognizes that Powerlink and its high-voltage network needs to be considered as part of a coordinated and statewide approach to fire mitigation. An outage to earth or between conductors can cause electrical events, with potential flow on impacts at a state and national level. These electrical events also have potential direct (e.g., flame contact outages, like the 2013 Bundamba Fire) and indirect threats to life (e.g., failure of life-supporting

equipment or transport disruption).

Powerlink has been a long-standing member of the Queensland Fire and Biodiversity Consortium, which provides a valuable "one-stop shop" for Powerlink to access researchers, local and state governments, and private landowners involved in land management. Services include property planning as well as fund-applied research, forums, workshops, and relevant training in the areas of

Control burns are deliberately lit fires used to reduce fuel loads prior to wildfires.

wildfire risks and hazards, vegetation, and land management practices (including ecological and environmental considerations). This also includes the development of brochures and educational materials, such as the QFBC Property Fire Management Planning Kit transmission line supplement.5

The results of the Mapleton National Park trials are outlined from the various aspects taken to coordinate the efforts in managing fuel loads.

Powerlink Land Maintenance Program

Powerlink's land maintenance programs are the primary interface with the Mapleton National Park planned burn program. The strategy between these programs drives the coordinating, complementary implementation.

Strategy

The strategy for the trial was to achieve the following objectives:

- · Use power line corridors as protection zones in strategic locations within Mapleton National Park for wildfire mitigation programs.
- Reduce the fuel hazard on major transmission lines, reducing risk of fire flaring and outages during wildfire incidents.
- · Simplify fuel structure under on these sections of corridor, making planned burning safer and easier to conduct.



Plan

Discussions in the field between all parties confirmed the planned burn program activities. Powerlink officers and National Parks officers collaborated and produced maps to identify and schedule the various activities, ensuring they all occurred to achieve the strategic objectives. This plan is continuing to develop due to variables based on site conditions and program outcomes.

Implementation

Once a plan was agreed upon, Powerlink Easement Officer Joel James coordinated implementation with all parties, including various Powerlink activities in the National Park. James performed a cultural heritage search to ensure that no sites of cultural significance would be disturbed. QPWS&P and Powerlink collaborated on the design, with James project managing the construction of the shared firebreaks. As a joint exercise to clearly identify burn areas, the firebreaks were mapped by both Powerlink and QPWS&P. Multiple checkpoints used new drone technology to survey vegetation within the trial area. James facilitated the technology use, acting as the authorized person for drones within proximity of high-voltage transmission lines, while collaborating student, Josh Sos, performed the data analysis from the drone flights.

Powerlink undertook vegetation clearing aligned to the 2016 QESI Code of Practice and within Powerlink's vegetation control strategies to minimize the risk

of flashover during prescribed burn activities. Sos monitored the site using a post-treatment flight for further data analysis, and Powerlink teamed with National Parks monitored the site until surface fuel layers increased to carry a burn. After communication with Powerlink network operations teams, to ensure there were no network operation risks, National Parks performed the prescribed burn and the collaborating team completed final inspections to gather data on the outcome.

Performance Indicators

As part of its land asset strategies, Powerlink has a suite of performance indicators to drive strategic objectives. The spans within Mapleton National Park have been identified as intensive spans, which means there are possible adjustments to land maintenance activities annually.

Monitoring

Monitoring points, inspections, and audits help inform Powerlink's maintenance and

management of land assets. Annual program reviews consider performance indicators and risk factors in setting land maintenance programs. In the trial area, Sos performed detailed baseline studies on fuel loads and volumes.





An overview of QPWS&P's control burn program around Powerlink's assets. Photo courtesy of Darren Rogers, QPWS&P.

QPWS&P Control Burn Programs

The QPWS&P fire program incorporates legislation; national policy statements; higher level plans; inter-agency protocols; and operational policies, procedures, and systems. QPWS&P adopts the following primary objectives:

- · Protect life, property, and community assets from the adverse impacts of fire.
- · Manage fire to maintain and enhance ecosystem health, biodiversity, and the range of habitats.

- · Protect other park and forests values, such as places of cultural heritage significance and natural resource productivity.
- · Foster coordinated and cooperative partnerships with other fire authorities, as well as traditional owners, lessees, park and forest users, neighbors, and communities in order to manage fire across the landscape.

Within the QPWS&P estate and surroundings, the Bushfire Risk Management Framework (BRMF) is used to identify, assess, evaluate, and treat bushfire risks associated with unplanned fire events. The BRMF is intended to guide QPWS&P's fuel management activities (including prescribed burn and bushfire mitigation activities). In particular, the BRMF provides a consistent methodology to assess bushfire risk, which will then be used to develop fire strategies and identify bushfire risk treatment, prioritizing burn programs. QPWS&P, through its Good Neighbour Policy, cooperates with neighboring landholders. government departments, and local authorities to meet its legislative and social requirements in managing fire on its estate.

Park-based fire management strategies are the major component of the QPWS&P fire management framework and provide the overall direction for fire management in a reserve. The fire strategy details the values of the reserve, the long-term fire management aims, and how these relate to on-ground fire management.

The Mapleton Fire Management Strategy is currently under review. The power line corridor and the adjacent eucalypti (Eucalypteae) forest, where the trial is located, is zoned "Land Management Special" to facilitate the trial and allow flexibility in planned burn regimes to meet the objectives of the trial.

From the fire strategy, developed site-specific burn plans address the operational requirements to provide for the on-ground delivery—and specify the purpose and priority of the burn, the objectives, weather conditions, costs, and risk management. These burn plans are then used to develop a prioritized regional burn program to meet QPWS&P's primary objectives.

The burn plans to date have led to the successful delivery of the first planned burn within the northern section of the trial area, with approximately 50-60 percent coverage of burnt area. However, there has been an increase in post-fire

regeneration of Callicoma serratifolia within the power line corridor, which is expected to reduce with subsequent planned burns and VM practices.

University of Sunshine Coast Thesis Student Monitoring

Sos performed his student thesis project on the site with academic supervision from University of Sunshine Coast faculty, Tom Lewis and Sanjeev Srivastava. The studies aimed to develop a method of using remote sensing platforms and data to map and monitor fuel loads underneath power lines within Mapleton National Park. Photogrammetry was used to stitch together individual aerial images into a single, 3-dimensional image containing physical data. Field measurements and remotely sensed data were acquired over an 11-month period:

- · June 2020 (pre-treatment sample)
- · October 2020 (first post-treatment sample)
- · May 2021 (second post-treatment sample)

Each tower had three revisit sample points randomly allocated, with vegetation heights measured at 1 m from each revisit point. Each revisit point was located using a handheld Leica GNSS-RTK device. A DJI Phantom 4 Professional drone, fitted with an original equipment RGB camera, was used to collect aerial imagery.

Using digital photogrammetry on drone images, orthomosaic and digital surface models (DSM) were derived using Metashape Professional 1.7.1 software. All data products were imported into ArcGIS along with GNSS locations of field revisit points for further analysis.

Using simple map algebra, a canopy height model (CHM) for the study area was derived by subtracting the digital surface models (DSM) from the digital elevation models (DEM). Markercontrolled watershed segmentation was applied to the CHMs of each flight to get boundaries of individual trees. These polygons for individual trees were used for measuring change in vegetation

Height data was calculated from the CHM. This remote sense data was compared to the field-measured data, using simple least-squares regression. A strong correlation was determined between the field and remote sensed data $(R^2=0.907; df=1,16; F=156; p<0.001).$

Using drone-derived photogrammetry and the marker-controlled watershed segmentation algorithm, we have



Joel James (back, RHS) and Chris Gear (front, RHS) from Powerlink + Peter Leeson (back, LHS) and Mark Lythall (front, LHS) from Queensland Parks and Wildlife Services. Photo courtesy of Stephen Martin.

demonstrated results that are consistent with other studies using similar methods in similar settings ($r^2=0.85$, $r^2=0.95$, $r^2=0.84$). Whilst the results indicate a level of accuracy to make managerial decisions surrounding VM, further refinement could allow more streamlined image processing.

Areas that had mega-mulching treatments experienced the most significant changes in height and volumes of vegetation. While not specifically recorded in this study, there was a noticeable increase of native grasses in the treated areas of the tower spans that were monitored in this study.

The methods used for this studymodified throughout—ultimately showed that by using a combination of dronederived DSM, LiDAR, and machine learning, it was possible to map the fuel structure underneath major transmission power lines with an acceptable level of accuracy. In order to determine a temporal scale for regrowth to that of pre-treatment values, a longer period of monitoring is required. This would help inform management on the frequency of fuel reduction treatments needed in the particular environment. Future studies may also try to determine species composition from remote sensing imagery.

Field Day with Key Stakeholders

As part of Powerlink's membership of the Queensland Fire and Biodiversity Consortium, a closed field day was arranged for more than 50 invited guests on the July 29, 2021. Powerlink has experienced increased notifications and stakeholder engagement following the field day. Social media posts-Powerlink's LinkedIn and QFBC's Facebook page were used to share images and for broad messaging.

Summary

Risk management, coordination, and collaboration have been key to successfully implementing the Mapleton National Park trials, which otherwise would have ineffective and inefficient outcomes.

Powerlink's fire risk management approach at a landscape level requires cooperation with key stakeholders to realize success. The approach has been supported by various state government agencies and officers and has been included into codes of practice, wildfire planning, and risk mitigation activities. The Mapleton National Park trials demonstrate how fire risk management principles can be translated from codes and strategies to a coordinated approach to managing risk, achieving the balanced outcomes our communities expect and future generations deserve.

The approach in Mapleton National Park also aligns with international best practice guidelines for right of management. In a conversation with John Goodfellow (Expert Consultant–Utilities, Reliability, and Vegetation Management, BioCompliance Consulting, Inc.), he stated the following about the trials, "It's clearly a biologically/ecologically sound, sustainable system that demonstrates an ethic of responsible stewardship, and saves money, too ... The collaborative nature of the field day is refreshing and is what is needed—that all resource managers/ stakeholders come together with a shared focus on reducing risk."

A coordinated and risk-based approach is essential for successful fire risk management. Powerlink's approach is to support the management of risks at a landscape level with appropriate investments and allocation of resources to collectively manage the risks with the broader community. Where relevant parties don't coordinate their efforts, the results are not as effective or efficient.

The Mapleton National Park trials show that Powerlink is taking an appropriate fire risk management approach. No single approach will eliminate fire risks, but the trial reveals how effectively mitigating risks in conjunction with the key stakeholders can build more resilient communities.

Acknowledgments

Powerlink has taken a lead role in progressing the trials in Mapleton National Park, but the trials would not have been possible without the dedicated support from many officers across QPWS&P, some who are now retired. Support from the University of Sunshine Coast and Department of Agriculture & Fisheries has also made the establishment of baseline survey results possible.

References

- M.A. Wouters, Overall Fuel Hazard Guide for South Australia, Bushfire Conference, June 2006, https://www.fireandbiodiversity.org.au/ images/publications/conference-2006/Overall_fuel_hazard_guide_ for_South_Australia.pdf.
- Queensland Parks and Forests, Code of Practice: Maintenance of Electricity Corridors and Infrastructure in Queensland's Parks and Forests, October 2016, 2016-qesi-code-of-practice---maintenance-in-qlds-parks-andforests---signed---lr.pdf.
- 3. Queensland Government (website), Park Management Programs: Fire Management, https://parks.des.qld.gov.au/management/programs/fire-management.
- State of Queensland (Queensland Fire and Emergency Services), Queensland Bushfire Plan, 2020, www.disaster.qld.gov.au/cdmp/ Documents/QLD-Bushfire-Plan.pdf.
- 5. SEQ Fire & Biodiversity Consortium and Powerlink Queensland, Property Fire Management Planning Kit: Powerline Easements, Fire, and Biodiversity Supplement, https://www.powerlink.com.au/sites/default/files/201901/Property%20Fire%20Management%20Planning%20Kit.pdf. *

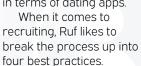


SPONSOR



t's easy to see there has been a shift in the job market. Our industry is operating in a time when candidates

whiel candidates are hard to come by and competing offers are at an all-time high. To hire and retain the best employees, ACRT Services Director of Human Resources Kaylynn Ruf likes to approach the process of recruiting and retaining in terms of dating apps.





Sourcing. If you've been solicited by a recruiter on LinkedIn before, that's sourcing—a practice that is purposely looking for a date instead of hoping to meet someone by chance. Use a variety of sources and make lots of contacts. More dating apps and swiping will equate to more potential dates.

Reviewing and Contacting Applicants. After applicants apply, it's time to pick a match and reach out to schedule an interview. This stage is "high risk" because if done wrong, it's easy to be rejected and lose a good candidate. Remain patient. Chances are, you won't meet your dream date on a dating app in the first few weeks. Give platforms opportunities for success.

Interviewing. This is the equivalent of the "dating phase" in relationships. When interviewing candidates, Ruf suggests asking questions that prompt the candidate to give specific examples of their past behaviors.

Internal Team Setup. Think of the ideal ways to structure your team to maximize quality-hire capacity and make relationships work. In terms of business, it's best to dedicate one recruiter for every 25 requisites per business unit.

"When recruiters can act as matchmakers by taking the candidate and manager on their "first date," managers simply need to make a selection, allowing them more time to focus on their managerial responsibilities," said Ruf.

To learn more about starting a career in our industry, visit *careers.acrt.com.*





Employee Engagement Builds on Strong Safety Foundation

afety is a core value for Davey. Each division has its own unique environmental hazards, depending on the crew's location. Crews working in UVM, energized utility lines, broken or damaged equipment, and hazardous trees deal with dangerous environments. According to the Bureau of Labor Statistics, 556 incidents in the utility field were fatal in 2020.

For crews, having a physically demanding job coupled with the daily administrative tasks that come along with the workplace, it can be a challenge to keep safety top of mind. While enforcing certain standards and protocols is a priority, achieving safety goals goes beyond the book and requires a people-led shift in mindset. Davey has cultivated a culture of safety through crew-level leadership that empowers and encourages teams to continually put safety at the forefront of each project. One way Davey creates these safety leaders is through high-quality, thought-provoking training.

Building Up Crew Safety Leadership

Davey's Eastern Utility division offers several trainings throughout the year, including some that highlight lines under tension safety and a new program called Planting the SEED.

Planting the SEED started in 2021 and focuses on leadership development. A group of high-level team

members selected by executive leadership attend a 3½-day seminar proctored by an outside facilitator. The facilitator uses assessments such as the Leadership Circle Profile to identify strengths and weaknesses in how they lead and conducts exercises to help attendees gain confidence in their skills.

"I can't express how much of an impact this training had on my perspective of so many things," said Douglas Kephart, Davey project manager and pilot class attendee. "The impact of the information is not limited to a professional setting. These principles and processes can help you evolve as a whole person while helping others be their best version, also."

Utility operations leadership also recently circulated a safety culture survey to gauge where teams feel they can improve on safety practices. The results of this survey will help create a safety leadership training that will be offered alongside Planting the SEED.

One Common Goal

Hands-on safety trainings for utility employees are gaining popularity within Davey, with more regional crews sending employees or hosting their own sessions. By intentionally shifting the mindset around safety, leadership is seeing a positive momentum toward the common goal of getting employees home safely. *



The Planting the SEED training program, started in 2021, is led by an outside facilitator and uses assessments and exercises for leadership development.



Scan the QR code to learn more about Davey's utility solutions from VM to asset management.



BEYOND COMPLIANCE

ENVIRONMENTAL STEWARDSHIP ON THE ROW

Our team takes a different view – identifying compatible vegetation and managing site characteristics to make a positive contribution to the entire ecosystem – all while supporting the social responsibility goals of our clients and our industry.

Environmental Consulting Expertise:

- Wetland and stream consulting, mitigation, and restoration
- Invasive vegetation management

- Natural areas management
- Endangered species consulting



Learn about Davey's natural resource solutions by scanning the code.

















SOWING THE SEEDS FOR TOMORROW'S WORKFORCE

By Enid Mayer, Director of HR, lapetus Infrastructure Services



This article cites Gallagher research and is based on papers by Graphite and Gallagher. For more information on support to solve talent acquisition challenges, visit www.graphite.com.

mbiguity is always stressful. We're seeing how the current economic climate affects how we make decisions as a society and impacts workers at every level. The postpandemic labor market shake-up can be summarized by:

- Attrition
- · Increased retirements
- · Record-high quit rates
- · An uptrend in the employment rate

We have also noticed how today's labor market priorities have shifted. The uncertainty associated with the impending recession and the unsettled landscape are adding challenges for company decision makers.

Yet, "facts are friendly," and they help us prepare for the future. Recent data reflects the changes that have occurred and how trends are evolving in compensation, benefits, and healthcare. The rules that applied in the past to workforce retention are shifting, as well as worker expectations and the overall landscape. Knowing the data helps us prepare. And taking steps as an industry in the right direction now can help us determine the future of our workforce.

TURNOVER RATES

Nearly half of employees experienced turnover of 15% or more in 2021. The number is up 9 points from 2020, according to Gallagher's recently released People & Organizational Wellbeing Strategy Report. This factor substantially drives up the cost to businesses in attracting and training workers. In addition, there is an incalculable cost associated with business disruption. Replacing employees in the current competitive climate is even more costly.

PwC, who conducted one of the largest surveys of the global workforce,² reported that the Great Resignation is not over—a fifth of workers plan to quit in 2022. It reflects pay as the main reason for 71% of people wanting a new job.

COLLEGE ENROLLMENT DECLINES

To make matters worse, the data reflects declining college enrollment rates, which could further disrupt our workforce pool. It's a warning sign for companies that rely on onboarding college graduates. The declining college enrollment is set to impact our talent acquisition efforts four years from now, and it will have long-term implications for years to come. It is contributing to the shrinking pool of candidates available with specific education to join our teams.

If the impact of the global pandemic is decreasing, logic would imply enrollment would be increasing. However, a National Student Clearinghouse Research Center report³ revealed that undergraduate enrollment in four-year universities and colleges dropped by 4.7%, or roughly 662,000 students, since spring 2021. As a result, there are about 1.4 million less undergraduate students today than before the pandemic began.

The primary reason is many would-be students are wary

of the costs of a college education—and they also question the value. From 1980-2020, undergraduate tuition has risen 6.7% yearly at public colleges, for an increase of nearly 1,400%, and shows no signs of slowing down.

UNEMPLOYMENT RATES

Meanwhile, low unemployment continues to drive a hyperactive job market and a higher quit rate. Because low unemployment rates contribute to high labor demand, guit rates rise under these conditions. According to the Bureau of Labor Statistics, unemployment rates peaked in April 2020 at 14.7%, and for July 2022 at 3.5% down to 5.7 million, the levels of February 2020—prior to the COVID-19

pandemic. Transportation and utilities are reported among the industries and class of workers with the greatest unemployment rate numbers at 3.7%.

REVENUE FUTURES LOOK GREEN

On a positive note, revenue and headcount forecasts increases continue to show optimism. Organizations have encouraging expectations for growth, with more than 9 in 10 foreseeing 2022 revenue either increasing (63%) or remaining stable (28%). With respect to headcount, far more anticipate a rise (57%) than a decline (7%).1

THE EVOLUTION OF VM CAREERS

As an industry, VM is becoming more efficient with the use of technologies such as drones, UAVs, AI/ML, satellites, and IVM. Yet, we know these technologies will not take over for humans. We will, however, require more professionals with new and different skills. The definition of those skills will continue to evolve.

For the years to come, we will need to continue focusing on feeding our pipeline with qualified candidates. As demands

"If the Great Resignation has taught employers anything, it's to not take their workers for granted. Yet many companies risk doing exactly that—whether it's by not paying close enough attention to skilled workers who are at elevated risk of quitting, by failing to support workers who seek personal fulfillment and meaning at work, or by missing opportunities to build the trust that so often leads to positive outcomes at the personal, professional, and even societal levels."

- PwC Global Workforce Hopes and Fears Survey 2022

change, aggravated by climate shifts, aging infrastructure, and increased capacity needs, some of the focus will be on having more certified workers overall, with some cross training into IVM and unmanned aircraft systems, to name a couple of areas. However, a consistent approach is required to provide entrylevel expert workers. Several UAA Member companies have increased entry-level and pre-apprenticeship opportunities; sponsored scholarships; and partnered with higher education entities to form candidates with the qualifications the industry requires. Such an example is the UAA and others setting up with UpSkill California, a Community College Collaborative Research Study, to provide insights on the value of the relationship of working with industry. This is a local community upskill training for employers to access a capable labor force. Local colleges promptly stepped up to respond to emerging industry training needs.

TALENT ATTRACTION AND DEVELOPMENT

Given how slow universities have been to change curricula and costs-in ways that

could entice more students to enroll and prepare them for the world of work-it's up to the corporate world to rethink how we approach our talent pipeline challenges.

As established in the Upskill California example, some of the actions we can take include reimagining our partnerships with higher education institutions, facilitating the experiences and opportunities we provide employees, and our approach to finding and attracting talent. If we tackle these challenges now, we will be on the right track to ensure a healthy funnel of candidates tomorrow.

Here are a few strategies that appear to be taking shape:

CERTIFICATION-BASED DEGREES

Businesses have an opportunity to work more closely with colleges to design customized or certification-based degrees in place of traditionally rigid or linear programs. Companies can help design certification programs to enable students to find well-paying work while pursuing a degree. Then corporations will be in an ideal position to hire the students full-time once they graduate.

As a result, students can offset the high cost of higher education and employers can build a pool of talent based on specific

skills they need for their business, while also nurturing those with strong capacity to potentially take on leadership roles once they're ready.

Talent acquisition and retention is a top priority for business leaders across industry sectors. Closing the gaps will require ingenuity, grit, and commitment. The best way to ensure we have a healthy and diverse candidate pipeline is to draw from multiple sources—candidate referrals, social networks, niche job boards, on-demand talent acquisition platforms, and more—yet, looking for ways to tap into the workforce of tomorrow today will be vital to building a sustainable labor base.

Several UAA Members have been key players in building out the bridges toward employment in forestry. For example, UAA Member Amanda Opp is a current adjunct professor at the University of Wisconsin-Stevens Point, where she facilitates the Utility Vegetation Management Certificate Program, a combined effort of the UAA and the Utility Vegetation Management Association.

In Opp's words, "The investments we make in improving education will pay dividends in our future and workforce retention, and it helps provide equity and opportunity in the market. The labor force marketplace is incredibly competitive. The UVM certificate program is a beneficial career advancement opportunity for anyone looking to grow and will provide the industry with the skilled workforce that we will need to lead future UVM programs and innovations."

Works Cited

- 1. Gallagher, "2021 Workforce Trends Report: People & Organizational Wellbeing Strategy," https:// www.aig.com/us/workforce-trends-organizational-wellbeing-strategy-2021.
- 2. World Economic Forum, "The Great Resignation is not over: A fifth of workers plan to quite in 2022 (June 24, 2022) https://www.weforum.org/agenda/2022/06/the-great-resignation-is-not-
- 3. Todd Sedmack, "Undergraduate Enrollment Falls 662,000 Students in Spring 2022 and 1.4 Million During the Pandemic," National Student Clearinghouse Research Center (May 26, 2022) https://www.studentclearinghouse.org/blog/undergraduate-enrollment-falls-662000-studentsin-spring-2022-and-1-4-million-during-the-pandemic.

MODERNIZED APPRENTICESHIPS

Apprenticeships are an effective way to build and maintain a steady stream of candidates entering the pipeline. They provide an employer with an alternative to traditional evaluation criteria such as education and experience. Expanding the acceptance criteria to include on-the-job experience, hiring managers, and business leaders can widen prospect pools and support DEI initiatives.

The U.S. Bureau of Labor Statistics reported that more than 241.000 new apprentices entered the national apprenticeship system in 2020, and nationwide there were more than 593,000 apprentices obtaining the skills they need to succeed while earning the wages they need to build financial security.



PROFESSIONAL UVM CREDENTIAL PROGRAM UPDATE

By Jessica Tomaszewski, UVM Program Manager, University of Wisconsin-Stevens Point

CONGRATULATIONS

to the 2022 grads who earned their UAA Professional Utility Vegetation Management Credential in May!

hen discussing the Utility Vegetation Management Professional Development Program (UVM PDP) with its graduates in late May, after learning the Board of Governors had approved their credentials, the group remarked at how comprehensive they found the program to be. The UVM PDP is a certificate-based, comprehensive management training program designed and facilitated by industry professionals. These UVM industry professionals lead participants in acquiring the knowledge and skills needed to plan and manage sustainable UVM programs. Graduates were impressed with the rigor at which the program addressed all the domains of the UVM industry's best practices in safety, IVM, compliance, stakeholder communications, budgeting, quality assurance, and records management. The UVM PDP program emphasized applied learning to each participant's current employment situation while also asking participants to think and plan for work beyond their current positions, to advance into expanded management positions.

Benefits extended beyond graduates' individual professional development to improve knowledge and operations in the UVM programs that the graduates managed. Their credibility with upper management and stakeholders grew when they presented their capstone projects to their companies and co-workers locally this spring. Employers that supported these graduates found their UVM programs were more proactive than they had been. The applied reports and registers that graduates produced in their coursework went straight into application in their programs. All progress was enacted with a deeper understanding of why the application was needed, with complete comprehension of the UVM issue the report/register was

designed to help solve or communicate. With the support of their employers, these graduates got a tremendous boost of selfconfidence to take on the challenges of their UVM programs.



UVM PDP PROGRAM OVERVIEW

The program consists of two certificates and a credential preparation course. which are project based. It is 100% online, and courses are designed for applied learning for working professionals. There are no set days and times to engage with the course, so participants can do the weekly course requirements on their own schedule. The goal of the courses is to enhance comprehension and application of industry best practices so participants can advance beyond their current roles to help enact comprehensive UVM management systems.













Liberty Utilities

Todd Aaron Walker. **CNUC**

The program is comprised of three stages: Foundations Certificate, UVM Professional Certificate, and UVM Program Planning Credential.



UVM PROGRAM PLANNING: CREDENTIAL PREP COURSE

The final stage of the program, the UVM Credential, involves completing a UVM plan that addresses safety, compliance, best practices, ROW stewardship, IVM, and project management tools and processes. The idea is for participants to apply the concepts learned throughout the UVM PDP to build a sustainable UVM program for their utility. Participants then

> present their comprehensive plan to their local company and shareholders. Next, they prepare a presentation for the UAA review board. To be eligible for the credential, the UAA requires participants to have completed the full UVM Certificate Program, have two years of work experience, be a UAA Member, and be committed to the UVM Code of Ethics and Professional Conduct. Plans written in this course will be evaluated by the UAA Credentialing Board, who issue the Certified Utility Vegetation Management Credential.



serve the utility vegetation management industry by providing an elite professional development

program, offering current and future industry leaders with opportunities for professional certification through higher education and advanced training."







COURSE LOGISTICS

To be successful in the UVM courses, participants need to read the weekly module, participate in discussions, assemble weekly project tasks, and ultimately complete a final project.

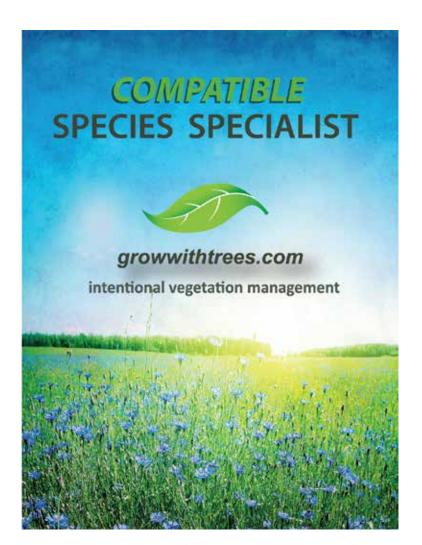
Each week, facilitators give feedback on the project task so that information can be incorporated into the final project. Participants can expect to devote 8–15 hours a week to their course work. The learning platform for the program is Canvas. Participants will be required to undergo 2–4 hours of orientation before the first class to introduce Canvas and full program information. During orientation, participants will learn course navigation, complete a time-management exercise, and ensure they have the resources for success.



SUMMARY

If you get the opportunity to touch base with graduates of the UVM PDP, please bend their ear about the program. All of them highly recommend the program to those in the UVM industry to enhance their management knowledge and skills. The UVM PDP expanded their experiences through applied learning opportunities, putting their new knowledge and skills into action. Participants began as utility foresters and UVM professionals who aspired to lead and became professionals actively leading within their UVM programs. The UVM industry will move forward in positive ways from their leadership and the leadership of our up-and-coming graduates. By working through all the UVM program domains, our UVM program graduates are capable of leading the UVM industry—having fulfilling careers by making sure our utility corridors are safe and wonderful assets to our communities.

The UVM PDP is a cooperative effort among the UAA,
Utility Vegetation Management Association, and the Wisconsin
Forestry Center at the University of Wisconsin–Stevens Point.



SPONSOR SPOTLIGHT





Take Your IVM BMP Knowledge to the Next Level with GWT's Newest Online Training Offering

IVM BMP Third Edition

The Integrated Vegetation Management Best Management Practices Third Edition (IVM BMP)— available from the ISA at www.isa-arbor.com/store—is a recently updated companion guide to the ANSI A300 Part 7 standards for utility and transportation VM. The IVM BMP serves as a primer on IVM and provides guidance for the implementation of best practices on managed lands.

IVM BMP Online Training Course

Grow With Trees has released a new online training course that provides a comprehensive introduction to the IVM BMP, making it accessible to a range of practitioners. This step-by-step path through the IVM BMP includes digital flashcards, videos, interactive activities, and knowledge checks.

Certificate

At the end of the course, learners complete an exam demonstrating they have mastered the content in the IVM BMP and receive a certificate of completion. While this course is not meant to be the sole resource for mastering IVM practices, it provides a solid foundation to grow a deeper understanding and prepares putting these concepts into practice in the field.

Sign up Today!

By the end of the course, you will be able to:

- 1. Explain the general IVM process
- 2. Identify the advantages and disadvantages of different types of IVM control methods
- 3. Identify IVM BMPs for electric utilities, pipeline utilities, railways, and roadways
- 4. Explain how IVM impacts conservation efforts and wildlife habitat
- 5. Utilize the Soil Texture Triangle to classify soil types
- 6. Distinguish between different herbicide application methods

The course is available now at www.growwithtrees. com/course/ivmbmp for \$200 per person. UAA Members can receive \$25 off with the coupon code **UAA3RDEDITION**. For more information, visit www. growwithtrees.com or contact branchout@growwith trees.com. *

SPOTLIGHT ON THE ENVIRONMENT

The Importance of **Training When Managing** for Compatible Vegetation



By Derek Vannice, UAA Task Force Member, CNUC President

bout a year ago, the UAA Environmental Stewardship Committee formed a task force to develop a series of documents and tools to help guide utility vegetation managers. These documents provide information for managing compatible vegetation for targeted species and biodiversity. These include a scope of work guidance document. The purpose of this document is to provide a template for developing scope of work statements when transitioning ROW from management that focuses on controlling incompatible vegetation to management that focuses on promoting compatible vegetation for biodiversity and target species objectives.

Alongside the scope of work document, additional tools were developed to build a strong business case for the transition to promoting compatible vegetation. We know that training our employees and helping them to obtain qualifications can improve retention and employee engagement, which leads to increased productivity and cost savings. Qualification and training are important components in developing a statement of work (SOW). In the SOW, there are three general outcomes described:

- · Protection-focused considerations
- · Enhancement-focused considerations
- · Integrity-focused considerations

The direction is increasingly more complex moving from protecting existing compatible vegetation to supporting desired compatible vegetation. In each of the three considerations, one of the key components is developing qualifications. What are the specific certifications, training, experience, or other qualities necessary to perform the work?

Protection-Focused may include ensuring that contractors complete required environmental and cultural protection training prior to commencing work. This may include training in basic plant identification.

Enhancement-Focused may include personnel trained in identifying target species and conditions specified in the expected outcomes, as well as conducting work required to achieve the performance standards and work specifications. Training could include botany, wildlife biology, or ecology.

Integrity-Focused may include similar language as above but more extensive training in ecological function and other specialized areas.

An example of a short-term (year 1–5) scope of work may include the following qualifications.

QUALIFICATIONS AND TRAINING (BOTH QUALITATIVE AND QUANTITATIVE)

Purpose: Basic plant identification is required to protect and enhance vegetation. Further training builds awareness to foster stewardship and provides tools to refine treatments

Protection-Focused IVM: Provides plant identification training to VM crews, contractors, and internal personnel.

- · Provide basic plant identification training for both incompatible and compatible plants will allow for improved IVM practices.
- · Environmental and cultural protection training will ensure alignment with company practices.

Enhancement-Focused IVM: Provide ecology and stewardship training to VM crews, contractors, and internal personnel.

- · Create awareness around land cover types as well as plant species compositions (e.g., grasses, herbaceous, and small shrubs) will allow for an increased focus on stewardship practices.
- · Provide training about the negative effects of off-target areas will minimize unintended damage to compatible species.
- Promote protection, propagation, and enhancements of compatible plants, in addition to targeting removal of incompatible plants. Also, increased plant identification knowledge of both incompatible and compatible plants allows for actively tracking plant species composition changes over time.
- · Provide information about IVM building blocks will enhance sequencing and the specific timing of treatment methods. (See UAA publication "Managing compatible vegetation for targeted species and biodiversity" Appendix B for compatible BMPs.)

Integrity-Focused IVM: Provide two IVM training to VM crews, contractors, and internal personnel and establish partnerships with local ecology specialists.

· This can result in increased refinement in the application of treatment methods over time.

These are examples directly from the scope of work document. The task force should be acknowledged for recognizing the importance that training and qualifications can play in the quality of work performed and the long-term savings that can be realized. Investing in training will improve the retention and quality of our workforce. A well-trained and engaged workforce will improve the quality of our ROW and will enhance reliability and the sustainability of our environment.

Reference

Utility Arborist Association, Scope of Work Guidance: Managing Compatible Vegetation for Targeted Species and Biodiversity, UAA Environmental Stewardship Committee (October 2021) https:// www.gotouaa.org/wp-content/uploads/2021/12/Compatible-Vegetation-Scope-of-Work-Guidance.pdf.





How







Can Expand Your Workforce

By Stephen Hilbert, General Manager, Asplundh Technical Services

ntegrated vegetation management is a powerful tool that is utilized across the world to manage vegetation of utility ROW. Electric, gas, roadway, and railway ROWs are the primarily neglected recipients, receiving less employee inputs (and hours) over time within a managed IVM system. The tenets of IVM are an agreed upon standard created by the ANSI A300 committee and can be implemented by any vegetation manager. There is tremendous opportunity for IVM to be implemented across all utility ROW to not only reduce human input over time, but have a huge benefit for the environment. As Geoff Kempter said at the recent Sustainability Summit in State College, Pennsylvania, in regard to IVM, "It works everywhere." The key takeaway is it indeed *does* work everywhere, but there needs to be buy-in from all stakeholders who are impacted by a change in process. Additionally, one IVM system does not fit all-state and federal regulations. plant communities, terrain, and land use must be taken into consideration for an effective IVM system.

Let's remind ourselves of some facts from the Energy Department's website (www.energy.gov). "The U.S. electric grid is an engineering marvel with more than 9,200 electric generating units having more than 1 million megawatts of generating capacity connected to more than 600,000 miles of transmission lines."

Additionally, there is an estimated 5.5 million miles of distribution lines and nearly 450 million homes and businesses connected to the power grid. A working electric grid makes modern life possible. As landlines are becoming uncommon, cell phones are the primary communication tool in modern society, making a healthy power grid essential to modern life.

According to Federal Communication Commission, cell towers must have eight hours of backup and up to 72 hours in

power-outage-prone areas. An efficiently run electric grid, that minimizes outages and duration, is necessary to meet modern communication demands.

One of the major resources in keeping the electricity flowing are the people in the overarching utility industry workforce. There are considerable challenges on the workforce front, and there are some key statistics behind this challenge.

The population of people 65 years and older is growing about .5% each year. The percentage of those aged 15-64 is going down. This means that there are less working-aged people in the U.S. year over year. Those ages 0-14 years old, the upand-coming workforce, is in a downward trend as well. The utility industry is competing not only with other trades, but also nearly every other business sector that requires a hands-on approach to work. There are simply not enough people to fill open job positions to maintain a safe, efficient electric grid.

How, as an industry, do we overcome these challenges? We need to keep the electric grid operating as efficiently and effectively as possible. Moving the ROW once every 3-5 years (depending on the climate and vegetation) may seem like a good way to get control of vegetation that could cause outages (i.e., grow-ins). Whereas in reality, many of the outages that occur originate from outside the ROW, and operations and maintenance should be focusing on those hazard trees. Also, with IVM the plant communities are lower-growing forbs and shrubs, making the ROW more accessible for maintenance, inspection, and repairs. More accessibility means repairs can be completed guicker and arguably safer.

During severe weather and storms, there is an onus of repairing the grid in a timely fashion. Hand cutting brush to access utility equipment during outages is a waste of resources when trees need to be removed from wires, poles need

to be set, and wires rehung—especially when there is a proven system that can reduce the taller-growing brush and trees with less worker hours per acre managed. In John Goodfellow's The Cost Efficiency of IVM: A Comparison of Vegetation Management Strategies for Utility Rights-of-Way, he noted that over time, the amount of incompatible stems per acre was reduced 58% at four years, 73% at eight years, and 81% at 20 years.

Goodfellow argues that one herbicide applicator utilizing a low-volume/ultra-lowvolume foliar application could manage nearly double the acreage in the given time frame compared to mowing only. As he stated, these metrics are estimates as ROW vary widely. Goodfellow also mentioned that a mower can manage 3-4 acres per day, while an herbicide applicator could manage 5-6 acres per day. I would agree and present one step further.

A mowing crew should have an equipment operator and a spotter to maintain a safe mowing operation. With this in mind, a mowing crew that can manage 3-4 acres per day is less effective than a two-person herbicide crew that could potentially manage 10-12 acres per day. Utilizing a standard eighthour workday, the mowing crew maintains .25 acres per hour, while the herbicide crew's productivity is .75 acres per hour, nearly *tripling* productivity of managed acres.

As vegetation managers, we need to understand how the current and future workforce is going to dictate how vegetation is managed on utility ROW. As we explored, there is a diminishing workforce within the U.S., and we must find ways to maintain the vegetation that we can control within the ROW as efficiently as possible-but also look beyond the ROW and find those hazard trees that cause a majority of tree-caused outages. Vegetation growing in on a distribution ROW is a relatively "easy fix" compared to a hazardous tree that falls across three phases and brings down lines and poles. In my experience, a hazard tree generally does not become hazardous overnight, and usually has been a hazard tree for a period of months, if not years. By utilizing the workforce efficiently through IVM presents an opportunity to not only find the hazard off-ROW trees but mitigate that risk as well. As vegetation managers. we need to understand that the workforce challenges will continue, and we need to be prepared to confront and overcome those hurdles. *



Environmental Consultants

DIGITAL CORRIDOR MANAGEMENT:

THE MODERN SOLUTION TO REMOTELY IDENTIFYING ASSET AND VEGETATION NETWORK CONDITIONS

Using state-of-the-art technology, ECI's three-part Digital Corridor Management (DCM) system leverages advanced LiDAR and high-resolution imagery-based remote sensing survey tools to remotely spot areas at risk of wildfires and other threats to uninterrupted utility service and worker safety, utilizing a unique combination of Virtual and Field-based Inspections. DCM creates a full digital twin of your network which is used to effectively and safely execute a variety of inspection and inventory programs.

1. DCM: VEGETATION

- > Transmission and Distribution
- > Virtual Work Planning
- > Work Quantification
- > Field Validation

- > End to End Work Management Solution
- > Tree Crew Mobile Work Orders
- > Progress Reporting

2. DCM: ASSET

- > Transmission and Distribution
- > GIS Conflation
- > Asset Inventory
- > Asset Defect Inspection
- > Connectivity and Engineering
- > Joint Use Inventory
- End to End WorkManagement Solution

3. DCM: AUDIT

- > Transmission and Distribution
- Regulatory Compliance Validation
- > Wildfire Risk Analysis
- > Reliability Risk Analysis
- > Asset Maintenance/Construction Validation
- > End to End Work Management Solution

eci-consulting.com/utility-solutions/digital-corridor-management-dcm/

Since 1972 ECI has helped hundreds of clients in North America realize dramatic improvements in public & employee safety, service reliability, cost savings, risk, regulatory compliance, and overall operational effectiveness while improving the public's perception of utility vegetation management.



By Phil Chen, Manager of Research and Development, CNUC

n my work, I often speak with vegetation management professionals about IVM. I get varying responses, but some reactions lead me to believe that many are interpreting IVM as a prescriptive technique rather than the management framework that it is. You may wonder, What is the difference? Is it just semantics? I will illustrate the difference by examining two common responses I receive when speaking with UVM professionals about IVM, illuminating the potential misunderstanding.

First, people respond with some variation of "We practice IVM; we have a spray program." Herbicides are often an integral part of an IVM program. Frequently, they are the most economically and environmentally sensitive option. This, however, does not make IVM synonymous with herbicide use.

Herbicide use is a treatment option (control method). When used correctly, herbicides can be low impact and help to shift a plant community toward a stable, compatible cover type. But IVM is a system of managing plant communities in which compiling and evaluating control methods and implementing site-specific treatments is only a tiny part. Focusing only on the control methods bypasses some of the essential functions of the IVM system, including:

- · Understanding pest and ecosystem dynamics
- Setting objectives, tolerance levels, and action thresholds
- Monitoring outcomes
- · Adapting future management accordingly

Each stage in the IVM framework noted above is fundamental to the framework and outside of control methods. It could be the case that the only control method utilized was herbicides. Even in this improbable scenario, herbicides would still only be the selected control method. Without understanding the ecosystem

dynamics, identifying compatible and incompatible species, and setting objectives and tolerance levels, it could be challenging to know if the herbicide treatment selected was the best control method. Additionally. without monitoring, the outcomes could not be evaluated nor could adjustments be made for future management to bring about better

A second typical response I hear pointing to a potential misunderstanding are from UVM professionals who manage distribution power line corridors. The response usually goes, "How are we meant to implement IVM on I envision a future in which IVM is not only an industry best practice but the industry standard practice.

a distribution system when crossing backyards?" It sometimes includes something about customers or members not wanting herbicides sprayed in their yards. It is essential to note that IVM includes a choice of control methods based on effectiveness. environmental impact, site characteristics, safety, security, and economics. In the latest IVM BMP, there are five classes of control methods: biological, cultural, physical, chemical, and prescribed fire.

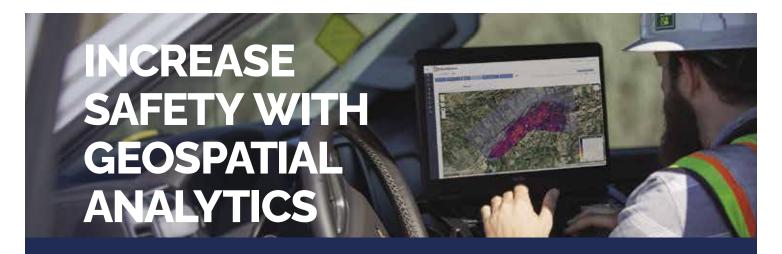
The various control methods are all tools in a VM professional's toolbox. Control methods should be site specific. Therefore, not all control methods are available for use on all sites, and not all will be the best option for that site, its conditions, and specific objectives. This is all to say that just because one or more control methods are not available to a practitioner on a particular site does not mean IVM cannot be implemented as the framework for managing that site. Likely it will be the case that some control methods are better than others for a site and many may be unavailable for use or impractical given the specifics of a site.

That is one of the advantages of utilizing the IVM framework. IVM provides a land manager with a full range of control methods. The framework then provides a path toward control method evaluation and selection. Finally, if a control method was implemented on a site and desired outcomes were not achieved (i.e., objectives not adequately met), then the adaptive and iterative nature of IVM provides for and encourages an altered approach for subsequent management activities.

I envision a future in which IVM is not only an industry best practice but the industry standard practice. To achieve this vision, we rely on all professionals in our industry understanding the IVM framework and how to utilize it for their land management activities. The IVM standard, like most standards,

> can be challenging to read and interpret. Luckily, we have the IVM BMP which Randy Miller, along with a committee of other industry experts, has interpreted for us and pulled together as a "howto guide" on IVM.

As an industry of land managers, let us work together and support each other as peers to bring IVM to all the lands we manage. IVM can be leveraged on all ROW and other working lands we influence. With it, the impact we can have will be tremendous. Through the implementation of IVM, we can all be better environmental stewards on the lands we are entrusted to manage—but that is another article. *



ACRT Services and Satelytics have partnered to help utilities identify system issues while reducing safety incidents and mitigating costs.

Utilities have thousands or even tens of thousands of line miles to manage. Identifying encroachments and other issues requires people to assess them one mile at a time — not only requiring significant time and resources but also putting field workers at risk. That's why ACRT Services and Satelytics have

partnered to offer geospatial analytics to the utility industry. As the first UVM organization to provide this solution, our family of companies is able to take our safety efforts further for you than ever before while reducing program costs, prioritizing work planning, and providing in-depth system data.

Get a new perspective.

Satelytics uses multispectral and hyperspectral images and data from satellites to analyze your service area.

Protect your people.

With precise areas of interest pinpointed, people spend their time more efficiently in the field, you reduce injuries and other safety incidents.

Prioritize remediation.

Rapidly identify areas at greater risk and dispatch people to address them, saving time and money.

See the whole picture.

Problem magnitude, location, and other qualitative information are provided with each image.

Validate faster and easier.

Using satellite images after work completion allows for faster verification that issues have been resolved.

Access historical data.

Past satellite imagery is available, allowing us to compare performance and system details over time.



Improve safety performance while streamlining VM processes with Satelytics from ACRT.

Contact us to learn more about our partnership and how it can help you.

acrt.com/satelytics | (800) 622-2562











UTILITY ARECRIST NEWSLINE

2009 W. Broadway Ave., Suite 400, PMB 315 Forest Lake, MN 55025 Nonprofit Org U.S. Postage **PAID** MOS



FIND YOUR CREW

"STABILITY, EXCELLENT TRAINING, STRONG SAFETY CULTURE, RELIABLE EQUIPMENT, SUPPORTIVE TEAMS"...
THESE ARE JUST SOME OF THE THINGS OUR TEAM MEMBERS SAY ABOUT WORKING AT ASPLUNDH. IF YOU ARE LOOKING FOR AN EXCITING OPPORTUNITY TO ADVANCE IN A CAREER WHERE YOUR DEDICATION, SKILLS AND EXPERTISE ARE VALUED, CONTACT US TODAY.



ASPLUNDH
ASPLUNDH.COM 1.800.248.TREE

STRONG