

Utility Arborist Newsline

NOV/DEC 2019

VOLUME 10

NUMBER 6

INSIDE

President's Message4
 Industry News9
 Professional Development
 Committee Update10
 Spotlight: Environment12
 2019 UAA Awards14
 ROWSC Accreditations21
 Regional Reports46

FOCUS ON ENVIRONMENTAL STEWARDSHIP

Pollinators Reclaiming ROW
 Habitat1
 Stewardship Opportunities 22
 Wood Rescue in the Urban
 Forrest26
 Pollinator Habitat on Gas
 Pipelines.....28
 Judgement Day for Grass ...32
 Care for Local Environment...35
 Cultivating a Culture of
 Environmental
 Stewardship36
 Op Ed: Rethinking Planning
 and Specifications40
 Op Ed: Climate Change
 Adaptation42

PHOTO: ©ISTOCKPHOTO.COM/4NADIA



The Power of Pollinators Reclaiming ROW Habitat

By Kevin Baggett, Christina Cunningham, and Russ Maxwell, CNUC Consulting Utility Foresters (on behalf of North Georgia Electric Membership Corporation)

While the safety and reliability of electric and gas facilities are of great importance for our society, vegetation managers and utility arborists also focus strongly on environmental stewardship. Suppressing incompatible and undesirable vegetation around electric and gas lines provides optimal accessibility for vegetation management (VM) crews. Emergency service crews must also have quick and efficient access to their rights-of-way (ROW). These ROWs are not appropriate homes for tall or fast-growing vegetation that threaten service reliability. However, they are very useful swaths of land. The environment surrounding these facilities are prime habitat for a large variety of species such as birds, reptiles, mammals, amphibians, and most importantly, pollinators. Utilities, from the smallest cooperative to the largest transmission system, are uniquely poised with the opportunity to participate in environmental stewardship through habitat reclamation.

North Georgia Electric Membership Corporation (NGEMC) is situated in the north-west corner of Georgia spanning across six

FOCUS ON ENVIRONMENTAL STEWARDSHIP



ANAND PERSAD, THE DAVEY INSTITUTE

counties and possessing a little less than 6,500 miles of overhead distribution lines. This territory contains low-lying swampy areas, flat farmlands, and high mountain passes. A significant extent of its membership is in mountainous, rural terrain, which provides difficult and poor access to utility ROWs. An expansive system, diverse topography, and the discontinuation of herbicide application within the past decade make ROW maintenance for NGEMC even more costly and challenging. The incompatible and undesirable vegetation that has grown freely since the stop of herbicide treatments has increased maintenance costs as cycle busters and high-priced, hot-spot trimming are required to prevent outages. This process of ROW management, which involves the mowing and hand cutting of woody growth, creates a disturbance in the

SAFETY IN NUMBERS



SAFETY IS MORE THAN JUST A NUMBER. BUT IF WE STRIVE FOR ONE, IT'S 0.

Programs like Davey Performance Excellence and The Road to Zero focus on holistic training, team goal setting and encouraging our industry professionals to proactively identify and correct unsafe behaviors and conditions towards achieving annual injury-free workplace goals.

daveyutilitysolutions.com/safety



ASSET
MANAGEMENT



ENVIRONMENTAL
CONSULTING



LINE
CLEARANCE



STORM
RESPONSE



VEGETATION
MANAGEMENT



TELECOM
CONSTRUCTION

The Power of Pollinators Reclaiming ROW Habitat *(Continued from page 1)*

environment that inadvertently promotes the proliferation of the same incompatible and undesirable species that NGEMC routinely seeks to remove from their ROWs.

To maintain its five-year prescribed VM cycle, NGEMC is making changes and improvements to some of its processes. With the increase in growing season length and frequency, a series of integrated methods will be used to help keep pruning teams on pace and reduce the need for maintenance in the future. NGEMC also asked if they could do even more while still accomplishing their reliability requirements.

As VM professionals, we are familiar with the dire situations pollinator species are facing. Additionally, grassland loss has become one of the largest conservation issues in the southeastern region of the U.S. An estimated 90 percent of historical ranges have been lost since the colonization of North America according to the Southeastern Grasslands Initiative. This loss in habitat has caused many pollinator species to be threatened or endangered. The loss of these pollinator species will not only impact the loss of local rare vegetative species, but also have a significant impact on the commercial agriculture industry.

Utilities like NGEMC can reclaim ROW spaces for pollinator species by promoting the growth of grasses, wildflowers, and other compatible native vegetation. Low-growing plants that provide healthy wildlife habitats can outcompete aggressive, incompatible vegetation. With integrated methods of VM, we will be able to maintain the safety and reliability of electrical facilities and promote environmental stewardship.

Facilitating the health of grasses and native species through secondary succession has been used for many years in transmission ROW and gas pipeline, yet we have seen little research on the success of these methods on overhead distribution ROW. NGEMC's staff strongly believes that the responsibility of environmental stewardship warrants the establishment of test sites on their system, especially in terrain that is hard to maintain. Through these test sites, NGEMC hopes to establish new research regarding the use

of secondary succession on distribution ROW.

By using integrated methods to remove incompatible and undesirable plant species, NGEMC may significantly enhance its ROW resiliency while reducing the number of tree-caused outages. Compatible and desirable plant species will be established and will eventually thrive, reducing the frequency of needed routine maintenance. NGEMC members who reside on ROWs reclaimed by native grasses and wildflowers should expect to have fewer outages while enjoying new and increased habitat for pollinators such as bees, butterflies, and songbirds.

An equally important aspect of environmental stewardship is the opportunity for collaboration in establishing a plan or project. Whether your organization is seeking to save a declining species, develop new methods to clean a waterway, or raise support for sustainable practices, you can include others as partners in your work. No matter their role, every partner in your stewardship initiative expands awareness and outreach.

For NGEMC, this means partnering with local and state agencies, civic organizations, and area schools and colleges for learning and engagement opportunities. Including the community and the co-op membership in stewardship efforts is critical. Assisting others to achieve shared goals for a shared environment is vital. NGEMC hopes that the research resulting from their test sites will allow other utilities and organizations the opportunity for outreach should they choose to start a similar project in the future.

The charge of making a positive impact on the environment today is a daunting task. Every day, new challenges arise, and when viewed as a whole, they seem insurmountable. However, if we narrow our focus and look to our neighbors for help, we can create meaningful change. Environmental stewardship provides us the opportunity to collaborate locally and globally with those facing similar challenges and allows us the prospect of finding real, attainable solutions that we can all share.

ANAND PERSAD, THE DAVEY INSTITUTE



PHOTOGRAPH BY EDWIN MAZIN, ANPOLA



President's Message

By Eric Brown

Environmental Stewardship: The Utility Approach

More than many other industries, utility companies across North America exemplify environmental stewardship. Transmission and distribution (T&D), high-voltage powerlines transmitting and delivering electricity across millions of acres of land must coexist with urban, rural, forested, and open-space lands everywhere.

Managing high-voltage T&D systems requires far-reaching environmental responsibility as part of our day-to-day work activities. From planning and siting processes to construction and maintenance activities, utilities and their contractors and consultants must ensure the safe and reliable delivery of power in an environmentally responsible way that ensures work practices protect land, water, species, and sensitive habitat.

Environmental stewardship activities are typically driven by state and federal regulations in addition to each company's internal policies and procedures. These standards provide a framework for setting goals for environmental stewardship. This includes developing policies, procedures, and work practices to meet those goals, evaluating performance, developing corrective and preventive actions, avoidance minimization measures (AMMs), best management practices (BMPs), and performing management reviews.

Utility standard practices typically include environmental reviews and surveys of varying levels for several field conditions and work types. They can be as simple as observations for active nests or presence/non-presence of species or sensitive habitat. By ensuring these steps are taken, utilities can safeguard and minimize and avoid impacts to the environment on the front end.

The utility industry has several publications, guidelines, and standards developed by utility VM (UVM) industry experts that can be tailored to support your VM program and practices (e.g., ANSI standards). I would strongly encourage utility managers, consultants,

and contractors to ensure that they have trained and distributed copies to each of their management and supervision teams. Additionally, these publications are highly valuable resource materials to be available for your entire VM program team. Implementing these "standards of care" will provide exceptional value to your program both internally and externally.

Utilities, contractors, and consultants have partnered on several occasions to support habitat and species improvements. A couple examples come to mind, to which many can relate: moving a raptor nest, donating and installing used poles to provide habitat for cavity-nesting birds and bats, and donating used poles for wood duck nest boxes. Additionally, many organizations are collaborating and partnering with other industry partners, such as Native Plant Societies, Nature Conservancies, Ducks Unlimited, Wild Turkey Foundations, and Trout Unlimited. It's possible and encouraged that utilities create symbiotic benefits while ensuring safe, reliable delivery of energy to communities across North America. Many of these collaborations have been recognized locally and some nationally.

In addition to the objective of maintaining safe and reliable power delivery, responsible integrated VM (IVM) can result in diverse, stable, natural, low-growing early successional habitats under and adjacent to powerline corridors with substantial environmental benefits.

Finally, I would encourage each organization to explore accreditation of the Right-of-Way Stewardship Council (ROWSC). The ROWSC model follows the lead of Electric Power Research Institute's (EPRI) Standards for Assessing Performance of IVM on ROWs and is informed by other well-established accreditation programs found in the forest industry, such as the Forest Stewardship Council and Sustainable Forestry Initiative. The ROWSC establishes rigorous management standards based on a set of predetermined principles, requires a formal application process, and enlists third-party auditors to ensure compliance with standards. The ROWSC Accreditation Standards for Assessing IVM Excellence establish the technical requirements for applicants seeking ROW Steward accreditation. The standards are applied in an independent audit of an applicant's IVM program to aid in identifying excellence. As evidenced, the work of our industry carries great environmental responsibility from multiple perspectives. Few companies and industries operate as close to the landscape as we utilities do, so let's continue to exchange ideas as we all strive for the best approaches to environmental stewardship.



Clearion facilitates collaboration between managers, field personnel, data analysts, company executives, and other private or public stakeholders for an integrated and sustainable solution.



Learn how Clearion can help you to achieve ROWSC ACCREDITATION and further your RIGHT-OF-WAY STEWARDSHIP.



CLEARION

clearion.com/solutions/sustainability

(404) 954-0297



Executive Director Comments

By Phil Charlton

There are more than 3,000 electric and pipeline utility companies and an extensive network of contractors, vendors, manufacturers, technology companies, and more. Collectively, these companies manage approximately 600-700

million trees on five million miles of electric distribution lines and 21 million acres of pipeline and electric transmission corridors. The average maintenance cycle across North America is a little more than four years. That is a lot of vegetation to be managed in order to achieve safety, reliability, and compliance goals. Fortunately, more and more of our industry has been looking to go beyond mere compliance and moving toward managing its systems with attention to environmental sustainability.

In 2019, UAA members have been working to continue to make environmental stewardship a core value of the industry. UAA members worked with the A300 committee to rewrite the A300 Part 9 integrated vegetation management (IVM) standard. It has been brought into close alignment with the ROW Steward Accreditation requirements (i.e., standards of excellence in IVM) and has been broadened beyond the electric industry to include all those managing VM. Today, the UAA has a committee working to rewrite the IVM best management practice (BMP), aligning it with the new A300 standard.

Raising of the bar on IVM is timely. This year saw the first research conducted with a grant from the Utility Arborist Research Fund (UARF): "Cost-efficiency of IVM" by John Goodfellow. The advantage of IVM was demonstrated

across a wide array of benefits including public safety, operational risk, recreational use, public nuisance, site disturbance, water quality, compatible vegetation, incompatible vegetation (density & height), and a range of wildlife species. The report also documents the fact that IVM is the lower cost strategy.

This year also saw production of the UAA Environmental Stewardship task force's second video. The first video displayed the pride of right-of-way (ROW) managers striving for sustainable practices. This year's video is more outward looking, speaking to those outside of the VM team; the worker, the public, and the executive.

The year 2019 was also the year the UAA and Arbor Day invited the ROW as Habitat Working Group to join us at Trees & Utilities. Together, a full educational track considering the range of environmental issues around ROW management was presented and the audience included a wider range of industries and stakeholders.

Finally, I hope you have noticed that in 2019, the UAA increased communications related to environmental stewardship. It is always risky to name names since so many help out, but when it comes to the topic of environmental stewardship and UAA, a couple of names need to be mentioned. Stan Vera-Art (Grow with Trees) has done a great job of leading the UAA Task Force and has invested a tremendous amount of his own time and funds to support our efforts. Davey Resource Group has helped us develop the Environmental Moment, which is published monthly as a way to keep the topic at the forefront.

Of course, we anticipate 2020 will be busy as well. This issue includes a report from the task force and shares some insight into where the UAA is going. Please take time to read it and consider getting involved. Then, consider your role in making environmental stewardship a core value of your team.



Utility Arborist Association

2019 - 2020 Officers

Executive Director - Philip Charlton
(513) 623-1737
philipcharlton@gmail.com

President - Eric Brown
SMUD
(916) 732-6766
eric.brown@smud.org

President Elect - Paul Hurysz
Duke Energy
(980) 373-9371
paul.hurysz@duke-energy.com

Vice President - Jimmy Williams
CN Utility
(530) 708-2572
jwilliams2@cnutility.com

Past President - Bob Richens
ArborMetrics Solutions
(828) 685-1880
rrichens@arbormetrics.com

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

Director - Matt Goff
Georgia Power Company
(215) 915-3998
dmgoft@southernco.com

Director - Brandon Hughson
Rainbow Tree Company
(612) 685-5476
bhughson@treecaescience.com

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

Director - Becky Spach
First Energy Group
(330) 384-5533
spachr@firstenergycorp.com

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

Director - John Wasmer
ACRT Pacific
(209) 329-6246
jwasmer@acrtinc.com

Utility Arborist Association
2009 W. Broadway Ave.
Suite 400, PMB 315
Forest Lake, MN 55025
(651) 464-0380

Operations Manager - Diona Neeser
dneeser@gotouaa.org
Communications & Admin Assistant - Renee Phillips
rphillips@gotouaa.org

UAA Newsline

Editorial Chair - Nelsen Money
nelsen.money@gmail.com

Editorial Coordination - Pique Publishing, Inc.
Nadia Geagea Pupa
Abbey Espinoza
www.piquepublishing.com

Graphic Designer Deb Eisenmann
djedesigner@comcast.net



shout out to all the women in vegetation management

To Jenny Arkett, and the diverse group of women at the Women in Vegetation Management workshop at Trees & Utilities, we heard you! From the pages of the *UAA Newslines* to the boardrooms of America, let's all celebrate the diversity of our teams and keep this movement growing!



Job Done Right
100% employee owned

To learn more about Lewis Tree Service and how to grow your career with us, please visit:
www.lewistree.com/careers

Proud recipient of a 2016 ETHIE award from the Rochester Area Business Ethics Foundation.



AT ARBORMETRICS®

Stewardship is at the foundation of our ethical standards.

Second only to safety, sustainability is always in focus ...

... For you as a customer, and ultimately for us all.



ARBORMETRICS®

PEOPLE ARE OUR POWER

www.ARBORMETRICS.com • 1.866.685.1880 toll free

Industry News



CNUC Promotes Allen and Walker to Regional Supervisors

CNUC recently promoted Jason Allen and Todd Walker to regional supervisors. Their promotions went into effect July 2019.

Allen joined CNUC in January of 2015, bringing with him a wealth of knowledge in utility vegetation management (UVM) and arboriculture. Allen has worked in the industry for more than 10 years, in many states, and for numerous utilities and projects. He is an ISA-Certified Arborist, Utility Specialist, and is Tree Risk Assessment Qualified.

“We are very excited to have Jason take on the regional supervisor role,” said Regional Supervisor Patrick Larsen. “He has been an integral part of our ongoing training and employee development.”

Also beginning his career at CNUC in 2015, Walker has more than 12 years of experience in arboriculture, having operated his own private tree company and worked in numerous UVM projects around the country ranging from inspections to special projects. Walker is an ISA-Certified Arborist, Utility Specialist, Board Certified Master Arborist, and has his Tree Risk Assessment Qualification, along with a Master of Theology degree.

“Todd Walker has shown that he has what it takes to adapt and conquer any challenge or curve ball that is thrown his way,” said Regional Manager Ben Keck. “His positive attitude is contagious and he always brings an element of fun to any task!”

As regional supervisors, Allen and Walker will support long-term projects on the West Coast. Allen and Walker’s promotions are representative of CNUC’s current and future growth on the West Coast.



SILVER
LEVEL

SPONSOR SPOTLIGHT

Preserving and protecting the natural environment is an integral part of FirstEnergy’s mission to make our customers’ lives brighter. We are committed to sustainable vegetation management (VM) practices through education, emerging technologies, and community collaboration. One initiative we are particularly proud of is the Pennsylvania State Game Lands 33 Research Project (SGL 33), which is the longest continuous study measuring the effects of vegetation practices on plant diversity, wildlife habitat, and wildlife use of lands within a transmission right-of-way (ROW).

The Pennsylvania SGL 33 project began in 1953 to understand the impact of VM practices on wildlife habitat. Today, more than 60 years later, researchers from Penn State and FirstEnergy are still monitoring plant and animal biodiversity at SGL 33 sites. This research has continued to provide invaluable information that we have used to develop sustainable treatment options that discourage incompatible vegetation while fostering an abundance of wildlife and pollinators.

Additionally, FirstEnergy recently began utilizing the Closed Chain of Custody (CCC) for herbicides. During this process, herbicides are blended at a facility, placed in reusable containers, and then transported to the ROW when necessary. This process significantly reduces the risk of spills in the

FirstEnergy[®]

field and ensures the proper treatment solution is consistently provided to the applicators. In 2016, the FirstEnergy

CCC process resulted in a reduction of waste sent to landfills by more than 20,000 pounds and eliminated 68,000 gallons of diluted herbicides.

Within the past several years, FirstEnergy has successfully transitioned to a fully regulated electric utility focused on the development of a modern and sustainable electric grid. Preserving the natural environment is critical to meeting our goals. Thanks to research like SGL 33, we have been able to develop substantial improvements that have had a direct effect on preserving and protecting the natural environment throughout our 65,000 square mile footprint.





2019 Professional Development Committee Update

Throughout the past year, the Professional Development Committee has continued to provide you with opportunities to maintain your education in the field of utility arboriculture and earn continuing education units (CEUs) required for maintaining your professional credentials. In addition, the UAA and members of the Professional Development Committee have been working to broaden educational opportunities and enhance the level of professionalism we bring to the industry. One such effort that deserves highlighting is the Utility Vegetation Management (UVM) Development Program.

The UVMA (Alberta) and UAA cooperated in the development of the UVM Professional Development Program (PDP). It is intended to offer current and future industry leaders and managers opportunities for professional recognition through higher education

and advanced training. The PDP includes six college-level courses available online. The second class will be finishing this fall.

The UAA has been working with the UVMA to move program delivery from the Southern Alberta Institute of Technology (SAIT) to a U.S.-based college or university. We hope to have a memorandum of understanding (MOU) in place within the next few weeks. Students will receive certificates of achievement from the educational institution for each course completed. When all courses are completed, they will be able to apply for the industry's UVM Professional Certification. The unique program was designed to help them obtain the equivalent of 8-10 years of experience in two years. Individuals receiving the certificate will have distinguished themselves above and beyond their peers and bring increased value to their employers. The industry will also benefit by providing an "on-ramp" or career path for field workers wanting to transition to the manager ranks.

The PDP will receive direction and oversight from a board of governors consisting of industry leaders.

www.pennline.com
724.887.9110

PennLine
TREE AND RIGHT-OF-WAY
100% Employee Owned

Utility Line Maintenance // Right-of-Way Clearing // Herbicide Application // Storm Restoration // Mowing

Sara Sankowich of Unitil is currently serving as Board chair. She is supported by Cindy Winkler, a professional curriculum developer, and a number of industry volunteers working on the various committees. The program is fully operational, but the Board will continually work to ensure the curriculum is achieving its goals. They will be leading the migration of the program to the new delivery institution, building a one- and five-year strategic plan, finalizing the UAA Professional Certification, and crafting a strategy for sponsorship.

In addition to this exciting professional development curriculum, the UAA has partnered with Butte College to educate utility tree workers in the California region, where qualified tree workers are scarce but needed.

California utilities have increased their VM programs to harden their systems against wildfires. As a result, there is a need for an additional 3,000 to 3,500 Certified Line-Clearance Arborists. In California, Cal-OSHA regulations require that, to become a Qualified Line-Clearance Tree Trimmer, a worker must have a minimum of 18 months of on-the-job training.

PG&E has made requests of line-clearance contractors to supply them with an additional 1,000 workers to address the restoration and preventative efforts in and around the fire-destroyed Paradise community. Contractors are doing their best to meet the demands, but need help finding qualified workers.

To address the demand for the shortage of utility workers, the UAA has partnered with Butte College to develop a training program. Butte College is one of several California Community Colleges that include statewide Rapid Response Workforce Training Centers. In early July 2019, a select team of UAA members began to work with Butte College educators to give them an understanding of what training and certifications are

needed for UVM. After several conference call meetings to understand the educational requirements, a steering committee was then created. The steering committee included PG&E, tree contractors, union, consultants, pre-planning contractors, and college developers.

The first steering committee was held on August 29th at Butte College. The following subjects were covered:

- Background and vision
- UAA's UVMA Professional Development Program
- Overview of the California Community College Rapid Response Workforce Training Centers
- Discussions on how to solve the utility worker shortage
- Who the key stakeholders are
- The basic plan
- Reviewing the resources in the industry
- DACUM "developing a curriculum"
- Training pathway discussion and current industry programs (including IBEW apprenticeship)

The next steps include:

- Determining the demand for VM workers by California utilities—no later than October 1, 2019
- DACUM workshop—October 16, 2019
- Stakeholder workshop scheduled in the last week of October (to include SDG&E & SCE)
- Share the training program with Cal-OSHA and seek their input—to be determined
- Project funding proposal—November 2019
- Taskforce meeting—to be determined
- "Go Live" in the first quarter of 2020

Once the program is developed by Butte College, it will go to the State of California for curriculum approval so that other Community Colleges can offer this training in areas of high demand for UVM workers.

A Plan for Pollinators

Including Woody Shrubs and Small Trees in the Landscapes Along Transmission Lines

By Kim Peacock, Content Writer,
Arbor Day Foundation

SPOTLIGHT on the Environment



NASA IMAGE

Illustrations courtesy of Missouri
Department of Conservation by
Paul Nelson

According to the U.S. Department of Agriculture (USDA), 25 percent of the world's flowering plants and about 35 percent of the world's food crops depend on animal pollinators such as bees, butterflies, birds, bats, and beetles in order to reproduce. Many of these critical pollinators, unfortunately, are at risk due to habitat loss, disease, parasites, and environmental contaminants. Bees and butterflies are particularly vulnerable.

With declining pollinator populations in the U.S. and around the globe, changes in ecosystem management are encouraged. An environmental issue of this magnitude requires all hands on deck.

As scientists and gardening enthusiasts alike search for ways to integrate more pollinator habitat, the utility community has a unique opportunity to provide more and improved habitat for a wide variety of pollinators on which we rely. This potential opportunity lies in landscapes within utility corridors. In addition to the grasses often grown in these spaces, utility companies can easily and effectively incorporate flowering shrubs and small trees into landscape plans. Regardless of hardiness zone or ecosystem, native options are available that also would be compatible with transmission lines.

Some options to consider include:

American Hazelnut (*Corylus americana*): Also known as the American filbert, this shrub is native to the eastern U.S. It grows well in hardiness zones 4-9 and reaches a mature height of 15-18 feet (ft). Planting hazelnuts would be beneficial to not only pollinators but other wildlife as well.

Arrowwood Viburnum (*Viburnum dentatum*): This shrub grows well in hardiness zones 3-8, reaching a height of 6-15 ft tall. It forms dense thickets and provides excellent cover, fruit, and nesting sites for birds. This viburnum also attracts butterfly varieties of Red Admiral (*Vanessa atalanta*), Eastern Comma (*Polygonia comma*), and Question Mark (*Polygonia interrogationis*) and serves as larval plant food for the spring azure butterfly (*Celestrina ladon*) and hummingbird moth (*Macroglossum stellatarum*).

Crapemyrtle (*Lagerstroemia*): Known as the "Lilac of the South," the crapemyrtle makes a great choice for warmer hardiness zones 6-9. This fast-growing shrub will attract bees, provide bird habitat, and also beautify the transmission line landscape with pink blooms. It is drought tolerant and grows to a mature height of 15-25 ft.

Downy Serviceberry (*Amelanchier arborea*) This small tree grows in hardiness zones 4-9 as well, reaching



American
Hazelnut



Arrowwood
Viburnum

a mature height of 15-25 ft. Its white blooms appearing in the early spring are beneficial for pollinators, and the edible berries are loved by birds as well as people.

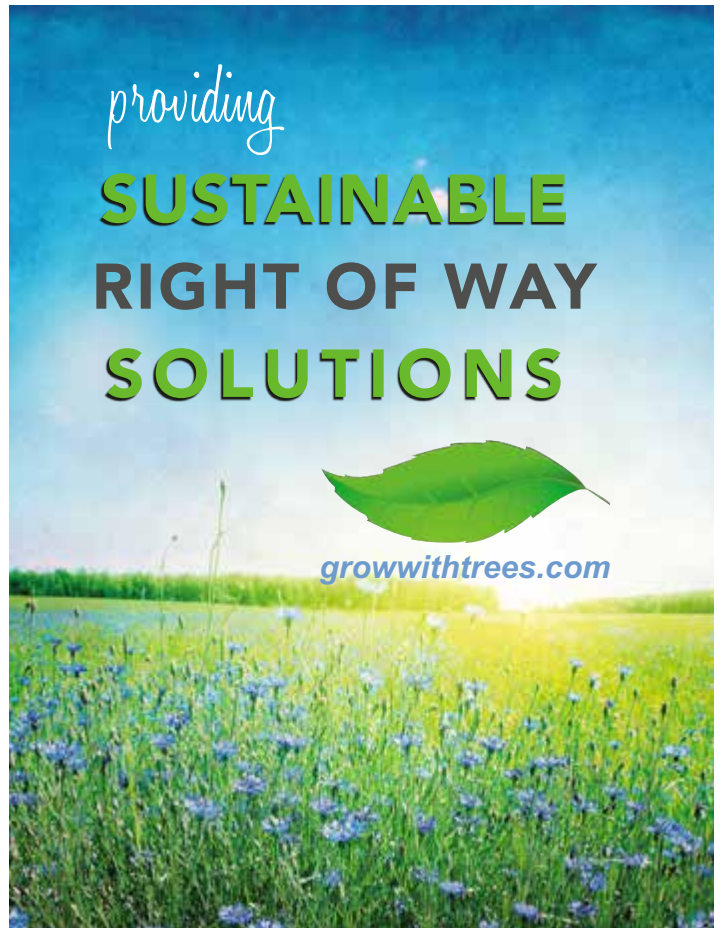
Lilac (*Syringa*): Lilacs are extremely hardy shrubs that produce long-lasting flower clusters in April or May, depending on your location. This common species grows well in hardiness zones 3-7 and reaches a mature height of 8-15 ft. It will attract butterflies, provide caterpillar food, and offer cover for birds and butterflies.

Sourwood (*Oxydendrum arboretum*): The sourwood tree produces nectar-rich white flowers that attract bees. This North American native grows in hardiness zones 5-9, blooms from June to early July, and provides beautiful fall color. Slightly taller than other compatible options, the sourwood tree reaches a mature height of 25-30 ft.

Winterberry (*Ilex verticillata*): With several cultivar options to choose from, this U.S. native can grow in hardiness zones 3-9 (including nearly all of the contiguous 48 states). On average, it will reach a mature height of six to eight feet; however, winterberries are typically slow growers. White spring blooms and fall/winter berries attract pollinators and birds, though a male winterberry shrub must be pre-set for berry production.

The native, compatible vegetation suggested are just a few of the many options available that support pollinator populations while achieving space limitations required along transmission lines. Utilities should spend some time exploring all the possibilities woody shrubs and small trees can provide in their landscape plans. Transmission corridors offer a distinct opportunity to improve food supply and habitat for a wide variety of pollinators and ensure a healthier planet for future generations.

For more information on bees, butterflies, bats, and other at-risk pollinators, visit the USDA's Insects and Pollinators website. More details on the shrubs and small trees featured in this article can be found in the Arbor Day Foundation's Tree Guide.



Downy
Serviceberry



2019 UAA Award Recipients

By Brandon Hughson, UAA Director

Since the mid-1990s, the UAA has been recognizing utility arboriculture practitioners who have made outstanding contributions to both the UAA and utility vegetation management (UVM) industry. These awards have been given to both pioneers in the industry as well as long-standing stalwarts who have given selflessly to promote the UAA. These awards are just a small token of recognition so deserved by these individuals.

UAA 2019 Lifetime Achievement Award

The Lifetime Achievement Award is the highest honor the UAA can bestow upon an individual, recognizing a track record of excellence and leadership by an individual who has performed an outstanding service and accomplishment in UVM, and this year's recipient is **Jennifer Arkett**.

Arkett grew up in a town near Akron, Ohio, where loving parents instilled a genuine appreciation of nature in their children early on. This person was active in Scouting, which cultivated interests in the great outdoors and set the stage for collegiate focus in natural resources.

Arkett received a Bachelor of Science degree in Natural Resource

Management from Kent State University in Ohio. Kent's coop program with the University of Michigan in Ann Arbor, Michigan lead them to pursue another Bachelor's degree in Forestry, and then on to an MBA in Management from Youngstown State University in Youngstown, Ohio.

Upon graduation, Arkett worked for the U.S. Department of Agriculture (USDA) Forest Service in California's Sequoia National Forest, then on to Pennsylvania to work in the Allegheny National Forest. A downed powerline in the woods resulting in a forest fire introduced this recipient to the head forester for the Pennsylvania Electric Company and a new career path in utility forestry.

Arkett then spent 11 years working for Penelec in northwestern

Pennsylvania and was recruited to the state's southwestern corner to Pittsburgh to develop and head up a VM Program for Duquesne Light Company. After fulfilling a 36-year career in the industry, our recipient retired in 2018.

Arkett was elected as the first woman President of the UAA and spent numerous years on the Utility and ISA Test Committees. She is an ISA-Certified Arborist and ISA Utility Specialist, has served on ISA's Public & Industry Relations Committee, and is also a three-peat Tour des Trees rider.

She is currently living north of Pittsburgh and enjoying retirement by spending time with family and friends, as well as sailing, biking, and travel adventures.

UAA 2019 Utility Arborist Award

The Utility Arborist Award recognizes an individual who is engaged in UVM and has demonstrated exceptional industry leadership.

Becky Spach is the Director of Vegetation Management at FirstEnergy Utilities Distribution Support. Spach provides leadership and directs FirstEnergy's transmission and distribution (T&D) VM program across approximately 290,000 circuit miles in 10 Operating Companies across a seven-state service area. Spach has worked in the field of utility arboriculture for 32 years. She joined Ohio Edison in 1987 as a forestry technician and has been promoted to a variety of supervisory and management

UAA 2019 Lifetime Achievement Award recipient, Jennifer Arkett (center)





UAA 2019 Utility Arborist Award recipient, Becky Spach



UAA 2019 Education Award recipient, Renee Bissett



UAA 2019 Rising Star Award recipient, Lindsey Boyle

positions in VM with time. In 1998, she was promoted to Manager of Forestry Services in T&D Technical Services. In 2005, Spach was named Energy Delivery Manager, Transmission VM, and in 2014, she was promoted to Energy Delivery General Manager, Transmission VM. She has held her current position since October 2015.

Spach earned a Bachelor of Science degree in Business Administration from Ashland University and an Associate degree in Applied Science Forestry Technology from Hocking College. She is an ISA-Certified Arborist and Utility Specialist in addition to holding an Ohio pesticide applicators license.

Spach's professional affiliations include being a long-standing member of the UAA and the ISA. She is currently serving as an Executive Board member of the UAA, she is a council board member serving on the Right-of-Way (ROW) Stewardship Council, she's a member of the Edison Electric Institute's VM Task Force, and serves on the ANSI A300 Tree Care Operations review committee.

UAA 2019 Education Award

The UAA Education Award is given to individuals recognized for the contribution to the education and training of UVM professionals.

This year's award recipient is **Renee Bissett**. Bissett jumpstarted her career by crafting taglines for local northeast Ohio businesses in her youth. Most notably, the local morgue (ask her to share her award-winning slogan). A Kent State University graduate with 15 years of industry experience, Bissett leads the Marketing and Communications functions across her organization's family of brands. As a thought leader in our industry, Bissett has served the UAA as a Trees & Utilities Conference Planning Committee member, Partners in Excellence Committee member, Marketing Committee Chair, and Editorial Committee Co-Chair. Never shying away from an opportunity to lend a hand, her service to the UAA has been instrumental in the continued education and training of UVM professionals.

UAA 2019 Rising Star Award

The Rising star award is given to individuals who are relatively early in their career, yet have already shown leadership of the organization and the industry, and this year's recipient is **Lindsey Boyle**.

Boyle has been in the UVM industry for seven years. Prior to starting a career in UVM, Boyle attended Cal Poly San Luis Obispo and received a Bachelor's degree in Landscape

Architecture. Due to the 2008 recession, Boyle worked as a Licensed Insurance Sales Representative for Allstate Insurance before finding her way to ACRT as a Routine Distribution Consulting Utility Forester (CUF).

In 2014, Boyle was brought into a program called Pipeline Pathways (later to become Community Pipeline Safety Initiative) to establish the landscape restoration portion of the tree removal work that was occurring to make the pipeline safe.

Lindsey is a Certified Arborist and Utility Specialist with the Tree Risk Assessment Qualification (TRAQ) group and she is licensed as a QAL holder for the Department of Pesticide Regulation.

Today, Boyle is focused on Vegetation Management, supporting substations, gas facilities, and all other fenced locations on Pacific Gas & Electric-owned land. Mostly, this means herbicide application, mowing, and tree work. She also sits on the Tree & Utilities Women in VM workshop committee, as well as assisting for the last two years on the UAA Western Regional Meeting Planning committee.

Outside of work, Boyle has a passion for California native landscaping and loves spending time with her dog, Hank. ▶



UAA 2019 Silver Shield recipient, Mark Kimbrough



UAA 2019 Silver Shield recipient, Jim Lowell

UAA 2019 President's Award

The President's Award is presented 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.

The president's award is going to an individual that has truly enhanced our industry in extraordinary ways. **Stan Vera-Art** has been working to improve our industry in a positive way for the last eight years. Stan is a great listener who knows how to get the job done and is passionate about making our industry and the world a better place. Stan is willing to have the hard conversations and call out poor management practices when he sees it. Vera-Art is a leader that leads by example and is a highly effective communicator. Vera-Art has contributed to writing in many industry publication and journals, both online and in print. Vera-Art has also let the team that has developed the two videos sponsored by the UAA, "The Stewards" and "LifeLines."

Vera-Art understands the history of integrated and utility vegetation management (IVM/UVM) and is working to ensure we don't repeat our past mistakes. When Vera-Art is presenting at many industry events, you will see this shine through as he has a unique perspective that challenges us all to think outside of the box. Vera-Art's efforts and passion have contributed significantly to the UAA, adding environmental sustainability as a core value. Vera-Art is the person who encourages us to "manage for what you want on the right-of-way (ROW)," not what you don't want. Congratulations, Stan!

Silver Shield

The Silver Shield award is presented to a person who is on the front line of safety and may hold an official or unofficial role within an organization. They influence and promote safety culture at every turn, as evidenced through

leading as examples. At the 2019 Trees and Utilities Conference held in Cincinnati, Ohio, we presented two industry professionals with the Silver Shield award.

Mark Kimbrough was the first awardee. Kimbrough began working for the Townsend Corporation in 1977 during his high school and college years as an herbicide applicator, arborist tree worker, foreman, and general foreman. Kimbrough's association with Townsend spans three decades. In December 2003, he was promoted to Vice President of Operations and Risk Management, and his efforts are now directed solely on safety as the Vice President of Safety and Training.

Kimbrough holds many industry credentials and currently serves the industry as the Vice Chair of the Utility Line Clearance Coalition, serves as an active member in the ANSI-Z133 revision committee, and is currently authorized as an OSHA Outreach instructor.

Congratulations to Mark as a recipient of the Silver Shield Award!

The next Silver Shield Award recipient was **Jim Lowell**, a CN Utility Consulting (CNUC) safety consultant working for Pacific Gas & Electric's Land Management line of business. His primary duties include performing safety assessments on third-party subcontractors and conducting field training and coaching to resolve or correct any identified unsafe work practices.

Prior to working as a safety consultant in California, he spent approximately six years working in and around Baghdad, Iraq for KBR as a Health, Safety, and Environmental Specialist. As leader, his safety partners saw a 20 percent reduction in the overall incident rate within the first year. Lowell continues to have a significant influence on the safety culture of those around him.

Congratulations to Jim on receiving the Silver Shield Award!
(Continued on page 18 ►)



I am CNUC.

DEDICATED TO YOU AND YOUR CUSTOMERS.

INSPECTION + AUDITING
EMERGENCY RESPONSE
CONSULTING
RESEARCH

CNUtility.com



FieldNote™ is built to handle whatever workflow you throw at it.

We provide the platform, you determine the rest.



Visit terra-spectrum.com to learn more.



Michael Weidner
CEO; ACRT Services



Scott Asplundh, CEO and
Chairman of the Board,
Asplundh Tree Expert
Company



Jack McCabe, Vice President
and General Manager of
Utility Vegetation Manage-
ment Solutions, Davey
Resource Group, Inc.

The 2019 PinE awardees include the following:

Gold

- ACRT & ACRT Pacific
- Asplundh Tree Expert Company
- Davey Tree Expert Company and Davey Resource Group

Silver

- ArborMetrics
- CN Utility Consulting, Inc.
- Environmental Consultants, Inc.
- Mowbray Tree
- Pacific Gas & Electric
- Wright Tree Service

Bronze

- Ecology and Environment
- Lewis Tree Service
- Jacobs
- Nelson Tree
- NiSource, Inc.
- Trees, LLC

The PinE Award (Partners in Excellence)

The UAA is the leading North American organization for the enhancement of quality utility arboriculture and right-of-way (ROW) management. Our continued success relies heavily on the support we receive from our members, sponsors, and volunteers. Our Partner companies that go above and beyond to support our mission are recognized annually with the Partners in Excellence (PinE) Award. UAA membership, sponsorship, advertising, active committee volunteerism, and many other scoring

components have been quantified and assigned values, representing the company's overall PinE Score. A committee of industry peers review each PinE application, along with their scores, and are awarded the PinE at the Annual Trees & Utilities Conference. There are four levels of PinE: Platinum, Gold, Silver, and Bronze. This year, there were no Platinum awardees. A tremendous thank you to the following companies for their continued support of the UAA and its mission.

INTRODUCING THE NEW

QUAD TRACK JARRAFF

HE'LL DO MORE IN ONE DAY
with a Jarraff All-Terrain Tree Trimmer
Than the Entire Crew Will in One Week
and Go Home Safe

STAY BACK 300 FEET

JARRAFF ALL-TERRAIN
TREE TRIMMER
SAFER
EASIER
FASTER
ACCURATE
PROFITABLE
OR THE SMARTEST
WAY TO TRIM TREES

Manufactured in the USA, the Jarraff All-Terrain Tree Trimmer is designed for Right-of-Way maintenance operations in the most difficult to the most sensitive terrain. The Jarraff is simply the smartest way to trim trees. Contact Jarraff Industries today.



JARRAFF
Industries, Inc.

JARRAFF.COM | 800-767-7112





ISA Annual International
Conference and Trade Show



ISA International Society
of **Arboriculture**

CALL FOR PROPOSALS TO PRESENT at the 2020 ISA Annual International Conference and Trade Show in Albuquerque, New Mexico, 9 – 12 August 2020

Share your knowledge at the world's premier gathering of arboricultural professionals, where practicing arborists join together with top researchers and educators to advance the profession.

ISA is seeking proposals from leaders in the field of arboriculture, urban forestry and more who want to share their research, best practices, expertise and passion for the industries.

DON'T DELAY
Submit your abstract today!

For a full list of topics, and to submit your proposal to present, visit

www.isa-arbor.com

Questions? Contact:
Chericka Ashley
cashley@isa-arbor.com

ENHANCED SAFETY FOR CREWS
 funding integrated safety vegetation management
 UTILITY ARBORICULTURE safety
 FUNDED SAFETY right-of-way research
 WILDLIFE BENEFITS
 ENHANCED SAFETY FOR CREWS risk management
 INTEGRATED RESEARCH VEGETATION MANAGEMENT utility arboriculture sustainability
 EDUCATING CUSTOMERS AND SHAREHOLDERS increased profitability
 safety RESEARCH SUSTAINABILITY RELIABILITY management systems WILDLIFE BENEFITS
 safety environment INCREASED PROFITABILITY sustainability RELIABILITY ENVIRONMENT WILDLIFE BENEFITS
 wildlife benefits EDUCATING CUSTOMERS AND SHAREHOLDERS environment safety WILDLIFE BENEFITS customer satisfaction UTILITY ARBORICULTURE management systems

UTILITY ARBORIST RESEARCH FUND

The Utility Arborist Research Fund (UARF) was established in 2010 to finance work of importance and benefit to utility tree care professionals. With support from many partner companies and individual donors, the UARF is now providing at least \$50,000 per year in perpetuity for new grants. We are grateful to the utility community for your ongoing support of this important program. Visit treefund.org to learn more.

THANK YOU TO OUR CROWN AND DIAMOND PARTNERS:



Visit treefund.org/partners to see all of our Partners.



ROWSC Recognizes Accredited Utilities

The Right-of-Way Stewardship Council (ROWSC) is pleased to recognize the accreditation of the following utilities as Right-of-Way (ROW) Stewards:

- AltaLink
- Arizona Public Service (APS)
- Bonneville Power Administration (BPA)
- New York Power Authority (NYPA)
- Pacific Gas and Electric Company (PG&E)
- Sacramento Municipal Utility District (SMUD)
- Vermont Electric Company (VELCO)

Awards and recognitions were presented at the annual Trees & Utilities Conference in Cincinnati, Ohio on September 10, 2019.

The ROWSC has established standards for preserving and maintaining transmission system ROWs. To meet



Pictured Left to Right: Eric Brown, SMUD; Bob Bell, PG&E; Craig Kelly, PG&E; Darrell Gaudet, AltaLink; Jeff Disorda, Velco; Erin Creekmur, APS; Lewis Payne, NYPA; Derek Vannice, ROWSC Chair, CN Utility. Photo courtesy of Trees & Utilities.

the technical requirements, utilities must implement integrated vegetation management (IVM), which balances the control of undesirable species with favoring desirable low-growing shrubs and grasses that don't obstruct transmission lines or utility access. By populating transmission corridors with desirable species, utilities can reduce the need to control those undesirable

species and the associated impacts and costs.

Utilities must apply to the ROWSC to start the accreditation process. As part of the process, the ROWSC performs a field audit and assessment, comparing all aspects of a utility's IVM program to the principles and criteria set forth in the latest standards.

SPONSOR SPOTLIGHT

SILVER
LEVEL



Xcel Energy would like to congratulate all the International Tree Climbing competitors for taking the industry to the top. We would like to give an extra loud shout out to Mariah Lundstrom foreperson with Asplundh Tree Region 065, for representing the utility arborists at this competition.





ROW Corridors Present Environmental Stewardship Opportunities

By Geoffrey Kempter, Technical Services Manager, Asplundh as well as Vice President of UAA

It is hard to travel any distance in North America without encountering some sort of right-of-way (ROW) corridor. According to the U.S. Bureau of Transportation Statistics, there are more than 1.8 million miles of oil and gas pipelines in the U.S. alone. Electric transmission lines add about another million miles. There are millions more miles of electric distribution lines, many of which are in towns and cities, but long stretches cross rural areas as well. When combined, this equates to vast tracts of land—tens of millions of acres in fact, an area larger than many states. All of this represents an opportunity for these companies to demonstrate their commitment to environmental stewardship by managing these lands sustainably and improving habitat for plants and animals that have been negatively affected by other human activities.

The average person generally only sees a tiny fraction of these ROWs, most often where they cross or run parallel to highways. As we pass, we might glimpse the hulking towers lined up with the sagging wires, and the cropped vegetation beneath. From the air, the scale is more noticeable, the swaths cutting far across the land, clearly delineated by their distinct lack of trees. These corridors cross whatever is in their paths, including urban, suburban, agricultural, river and stream crossings, wetlands, and rugged terrain. System operators spend large sums of money maintaining these corridors free of unwanted vegetation.

Interestingly, only a small amount of this land is actually owned by the utilities. The vast majority is owned by millions of individual landowners or by the government, with

Multiple studies and demonstrations have shown that the use of IVM in managing ROW corridors can improve habitat for pollinators and other beneficial wildlife while complying with regulatory requirements, often while significantly reducing maintenance costs.

easements granted for the purpose of transporting these vital products and services. Considering that easements are granted for a public good, it follows that the land also be managed with the public good in mind. In general, this means using economically and environmentally sound land management practices.

While oil, gas, and electricity are all energy products that are moved along ROW corridors, the regulations that govern them are often very different. Pure energy, high-voltage electric transmission falls under the Department of Energy in the U.S.

(in Canada the National Energy Board [NEB] regulates both pipelines and electric transmission). Vegetation contact with these facilities has triggered service interruptions, wildfires, and even widespread blackouts. Regulations require system operators to maintain vegetation with minimum clearances from transmission facilities.

Oil and gas are actual physical products that are transported through pipelines from origin to destination. In the U.S., they are regulated by the U.S. Department of Transportation (DOT), along with corresponding state agencies. Pipeline safety is a significant concern—explosions and spills pose risk to people, property, and the environment. Regulations for managing vegetation on pipelines focus on removing trees and brush that restrict inspection and access (or otherwise affect the operation of the pipeline).



ANAND PERSAD, THE DAVEY INSTITUTE

SPONSOR SPOTLIGHT



Go Beyond Compliance to Real Ecological Benefit with ArborMetrics



ARBORMETRICS
PEOPLE ARE OUR POWER

You know Electric Reliability Standard FAC-003-4 covers vegetation maintenance in the powerline rights-of-way (ROWs) and you know that the goal is to prevent outages caused by vegetation contact, but did you know that you can positively impact your environment while providing safe, reliable power? Access, safety, and compliance can go hand in hand with a thriving ecosystem. It just takes organizational commitment, expertise, and precision execution, which starts with an integrated vegetation management (IVM) partner.

You can put your trust in **ARBORMETRICS** to balance environmental stewardship with IVM. More importantly, you can turn to **ARBORMETRICS** to help you implement your transmission VM plan (TVMP) with prescriptions and project management that will keep you free of fines and help you ensure ecological benefit. To that aim, **ARBORMETRICS** offers:

- Experience working with local, state, and federal agencies
- Proactive habitat protection via protocol-based prescriptions
- Best management practices (BMPs) for utilities
- A variety of control methods for IVM
- Comprehensive understanding of applicable regulatory bodies and standards

ARBORMETRICS leverages proven Project Management Institute® (PMI) principles and certified Project Management Professionals (PMPs) to control your costs, improve your service quality, and enhance your compliance posture.

Moreover, our proprietary ArborLine technology provides an unmatched project management infrastructure. This scalable, quick-to-deploy, and easy-to-use technology offers a critical and ongoing feedback loop. With real-time status updates and timely reports regarding scope, cost, and schedule performance, **ARBORMETRICS** ensures your operations stay on track and provides valuable documentation for regulatory agencies.

At **ARBORMETRICS**, our mission is to improve the effectiveness of VM through safe, efficient planning, scheduling, and reporting services. We can help you go beyond compliance to deliver real ecological benefit. Learn more by contacting (866) 685-1880 or info@arbormetrics.com.

Though the reasons for VM may differ, both pipeline and electric utility ROWs need to maintain the corridor free of trees and other tall, woody vegetation. Companies have some flexibility in meeting these requirements, as long as vegetation that could interfere with the safety and reliability of the corridor is controlled. In fact, such situations are ideal for integrated VM (IVM), which allows for the use of a variety of methods, depending on management objectives and stakeholder interests.

This is where environmental stewardship can be a “win-win.” Multiple studies and demonstrations have shown that the use of IVM in managing ROW corridors can improve habitat for pollinators and other beneficial wildlife while complying with regulatory requirements, often while significantly reducing maintenance costs.

So what is holding the industry back? Unfortunately, one person’s idea of stewardship may be anathema to someone else. IVM by definition includes the use of chemical controls, which, though proven to be environmentally and economically sound when used properly, are often controversial. Getting various utility departments to agree and then commit to a long-term management strategy is sometimes difficult. For these reasons, utilities often stay within the status quo, which may not be the most economic or environmentally sound.

Existing industry standards, best practices, and accreditation programs provide companies a pathway to implement IVM across their ROW corridors and take full credit for improving habitat for wildlife and being good environmental stewards. Today, utilities must seize every opportunity to show their stakeholders that they are doing the right thing—especially when they can save money at the same time!

BY CHEZBEATE - PIXELBAY

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.

Many creative sponsorship and advertising opportunities are available to reach the 4,700+ vegetation management professionals in North America. Onsite, online, or print advertising options can increase visibility and build brands.

There are also other sponsorship opportunities that include any or all of the following options throughout the year:

- Regional Meetings
- Safety Summit
- Webinars

If you are interested in advertising with the UAA, our Media Guide includes advertising rates and sponsorship information. The guide is available via a link on the sponsors page at www.gotouaa.org.

If your company is interested in sponsoring the UAA in one of many possibilities, please contact us today.

UAA Utility Supporters

GOLD LEVEL



SILVER LEVEL



UAA Corporate Sponsors

GOLD LEVEL



SILVER LEVEL



BRONZE LEVEL



Webinar Sponsors



CONTRIBUTOR LEVEL



Partners in Excellence Program

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

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 2018 PinE Award Recipients.

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



2019 PinE Award Recipients



GOLD AWARD

ASPLUNDH

GOLD AWARD



GOLD AWARD



SILVER AWARD



SILVER AWARD



SILVER AWARD



SILVER AWARD



SILVER AWARD



BRONZE AWARD



BRONZE AWARD



BRONZE AWARD



BRONZE AWARD



BRONZE AWARD



BRONZE AWARD

Wood Rescue in the Urban Forrest

By Rob Ferrera and Darrell Daniel, SMUD

In a state filled with more than 100 million dead or dying trees, no corner of the golden state is immune from this phenomenon, including its capital, Sacramento. The city of Sacramento is known as one of the most densely canopied cities in the country. There are also many miles of above-ground powerlines within the city limits, as well as the neighboring cities and rural and urban communities. When these lines were first constructed almost 100 years ago, many of these trees were just saplings. In some situations, trees were planted with the intention to one day offer screening of these powerlines. Eventually, the relationship between the lines and trees would need to be actively managed.

This is one responsibility that the Sacramento Municipal Utility District (SMUD) takes very seriously. Providing reliable power and being a responsible steward of the tree canopy requires a balancing act. SMUD's service territory spans the entirety of Sacramento County and contains everything from high fire risk areas in the southern region to the alluvial soils along the American river. There is one thing these areas all have in common and that is: trees dying and succumbing to increasing environmental distress. In 2016, SMUD initiated its 69-kiloVolt (kV) targeted vegetation management (VM) reliability enhancements to increase public, employee, and contractor safety. California has finally come out of a multi-year drought and its effects have systematically shown themselves throughout the state. SMUD has taken a proactive and environmentally conscious approach to

protect and preserve our community's "city of trees"—the famous Sacramento nickname—while also expanding its reliability program further into the distribution system. SMUD's goal has been to focus on targeted specific, worst-performing electrical circuits, which had been heavily populated with overly mature large trees in declining, hazardous conditions.

From cranes, grapple trucks, and backyard "spider" lifts, utilities and their contractors operate a variety of specialized equipment to safely address dead, dying, and diseased

trees. Obviously removing these trees is a good thing, but solving one problem can potentially cause others. Removing these trees in a timely manner contributes to many positive outcomes, but it also means that an additional waste source is created. Can we, as a community in good conscience, afford to send these trees to landfills? We don't want to contribute to pollution and climate change with releasing the carbon these

trees have stored into the atmosphere. This doesn't contribute to our organization's commitment to environmental sustainability or operational excellence.

We needed to ask ourselves: is there something that we can do differently with this wood that serves both the environment and the community? SMUD has partnered with the Tree Foundation to provide free shade trees across its service territory. Recently, the Tree Foundation established a program that would meet this challenge of managing this new source of wood: the Urban Wood Rescue Program. This program, rather than treating the resulting wood and trees as waste, extends the life of these trees and keeps carbon stored within the wood by reusing all the salvageable pieces. Logs are milled into lumber for furniture, art, and

**4,500
METRIC TONS**
Total carbon
sequestered
by Urban
Wood Rescue



International Hall of Fame surfboard carver. Utilizing the urban mill, the wood was used to create surfboards for local California communities, retaining the carbon storage and extending the enjoyment the trees provide, giving them new life.

Another notable success story is that SMUD has leveraged this partnership with the Tree Foundation beyond the wood generated by tree trimming crews to also include wood salvaged during the recent renovation of the SMUD Headquarters building and landscape. The landscape was heavily canopied with mature and declining trees. One of the project goals was to replace every tree that needed to be removed to ensure public and employee safety. Our Facilities and Environmental teams are committed to seeing that all usable wood from these trees would be sent to Urban Wood Rescue Program to be milled

into lumber that can be repurposed to create benches and furniture. The benches will be used to replace the historic benches previously found throughout the lanscape and the furniture will reside in the newly renovated headquarters building.

We no longer live in a world in which we can ignore the consequences of our actions. The dross left behind does not need to be treated as waste. These logs can be—and are—worth saving. They can be turned into something worthwhile, something lasting, an icon of the past and the future. This collaborative effort puts into action SMUD and the Tree Foundations’ commitment to contributing to a diverse community that is also environmentally sustainable.

Total Carbon Sequestered by Sacramento Tree Foundation’s Urban Wood Rescue: 4,500 metric tons!

other products. Even if a tree cannot provide useful lumber, its remains can be used as biofuel or composted to improve the soil on a tree the original partnership may have planted, extending its life. Rescuing this wood may also be done by partnering with local businesses. One notable success story involves a time that wood generated by a SMUD tree job was used by local woodworker, Floyd Smith, an



PROTECTING THE REPUTATION OF THE UTILITIES WE SERVE FOR 100 YEARS

IT'S PART OF OUR JOB



800-522-4311
www.nelsontree.com



Vegetation Management Specialists

©2019 Nelson Tree Service, LLC. All rights reserved.

Pollinator Habitat on Gas Pipelines

A History of Columbia Gas' Pollinator Program


By Stan Vera-Art, Director, Grow With Trees; photographs by Colbe Tisdal

Four years ago, the Vegetation Management (VM) Program at Columbia Gas began to take a different approach to pipeline VM. Prior to this change, Columbia Gas managed for grass-dominated vegetation on their right-of-way (ROW) network. Grass communities are thought to be predictable. Where present in heavily stocked stands, native grass communities can crowd out undesirables; however, simplified, sparsely stocked stands provide bare ground that invites encroachment by invasive species and undesirable woody plants. In nature, simplified communities fall apart; they require regular inputs to maintain stasis. Think about the regular applications of fertilizers, herbicides, and mowing required to maintain a lawn. When maintaining grass-dominated communities on ROWs, many of the same rules apply. Fertilizers are uncommon within operations and maintenance work, but regular mowing and broadcast applications of selective herbicides are common. From a systems perspective, these regular cycles are desirable because they are easier to implement. However, simple systems don't contribute much beyond aesthetics in a front yard and strict compliance on ROWs. Unless Canadian Geese top your list of wildlife conservation objectives, mown grass communities don't provide much in terms of mitigating habitat loss, providing refugia, connectivity for declining insect populations, or contributing positively to anything other than the bottom line.

Wanting to break this cycle, Columbia Gas embarked on a journey that would change the way managers, planners, and contractors approach VM; a journey that changed company culture in favor of establishing and maintaining compatible biodiverse habitat on ROWs.

Four years ago, Columbia Gas began by exploring a cultural integrated VM (IVM) method known as cover type conversion. Cover type conversions took place on strategically selected ROW locations in Ohio and Pennsylvania. Existing vegetation was eradicated, soils were exposed, and sites were reseeded using an organic hydroseeding technique. Success of cover type conversions was directly linked to the composition of the seedbank. Presence of aggressive invasive species on adjacent lands was a good indicator of what vegetation would germinate quickly onsite. In some cases, aggressive germination acted as a cover crop for desirable species that take longer to germinate. A full flush of foxtail during the first growing season was undesirable, but foxtail decreased the second year, yielding to a combination of planted and volunteering desirables. In other cases, invasive species germinated quickly and established dominance at the site, as is most often the case with Johnson Grass, requiring multiple rounds of herbicide applications to eradicate.

This unpredictability led Columbia Gas to change its approach to a slow cover type conversion. Working with the dormant seedbank or over-seeding, less aggressive IVM methods will still bring about the same desirable plant communities, but it will take several years. Consistent application of selective methods—targeting undesirables and leaving desirables to occupy greater areas every year—doesn't provide the same level of instant gratification as a quick cover type conversion. However, with the right planning, operator training, and leadership committed to long-term VM, selective methods are reliable and powerful tools for achieving environmental stewardship goals across a company's footprint.



With the right planning, operator training, and leadership committed to long-term VM, selective methods are reliable and powerful tools for achieving environmental stewardship goals across a company's footprint.

Not all maintained lands are equally capable of supporting targeted conservation efforts and this introduces another form of selectivity—suitability. For example, small diameter gas distribution lines running beneath fully shaded forest canopy provide limited natural resources to support diverse assemblages of vegetation. When competitive growing conditions threaten certain vegetation—full sunlight, rich soils, and favorable topography—it will grow aggressively. Naturally, therefore, these are the areas in which to prioritize the establishment and maintenance of compatible, diverse plant communities. Prioritizing these environments is important for two reasons: 1) diverse vegetation contributes to long-term biological control of the site, reducing the frequency and intensity of treatments, and 2) competitive growth conditions are ideal for



providing nectaring and nesting resources for insect pollinators, upland birds, and many more desirable wildlife families. Columbia Gas employed a geographic information system (GIS) prioritization model to identify and evaluate ROW sites suitable for supporting competitive growing conditions, but alone, a model simply represents potential. VM contractors have become accustomed to maintaining grass-dominated plant communities, so an organizational change was required to achieve large-scale changes on the ground.

Plant identification classes and herbicide trainings were provided to contractors annually, and a smart-

phone-based app was created to encourage continued learning and to provide refresher trainings for crews. Additional trainings assisted herbicide application crews to recognize and limit damage to compatible, beneficial plants and to limit the use of broadcast non-selective herbicides as a blanket, short-term control for vegetation.

The process took a few years, but the transition from a structural approach to a compositional approach to VM qualified Columbia Gas to seek certifications from the Wildlife Habitat Council (WHC) and the National Wild Turkey Federation (NWTf), and to create, protect, and enhance numerous Monarch Waystations on their ROW network. The new focus on habitat management was rolled into

Columbia Gas' biodiversity reporting as part of the Dow Jones Sustainability Index (DJSI). During the first quarter of 2019, a full network evaluation for important biodiversity areas was conducted and initial geospatial modeling results were updated to incorporate newly discovered biodiversity hot spots. Several special biodiversity management plans are in development as a result of this work—many of which will enhance efforts already underway.

Columbia Gas is expected to join the *Nationwide Candidate Conservation Agreement for Monarch Butterfly on Energy and Transportation Lands*, and within the next four years, will enroll a minimum of 740 acres as part of conservation measures to benefit the survival and enhancement of the monarch butterfly. With modeling and training enhancements,

Columbia Gas will have no problem meeting this target. Were it not for the investments that Columbia Gas has made in the previous four years, enrolling more than 700 acres into habitat-supportive conservation measures would have been a greater challenge than it is today. Beyond enrollment, Columbia Gas will begin to measure and monitor pollinator habitat quality on their ROW using Tier II of the ROW as Habitat Working Group's pollinator scorecard. Monitoring for trends in habitat quality over time will help Columbia Gas continually improve its IVM programming.

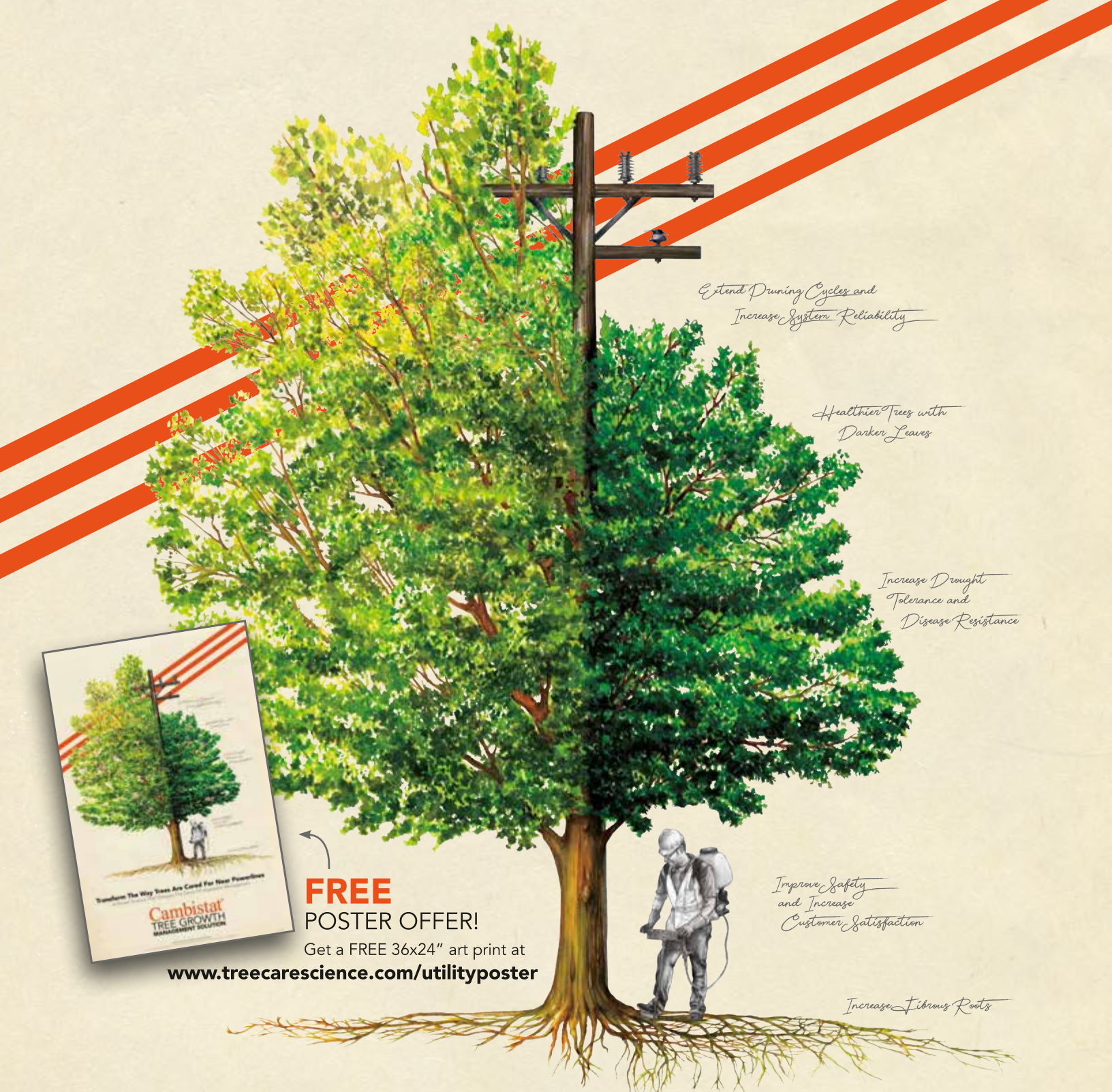
Changing company culture is an investment of time and resources, but more importantly, it's about people and partnerships. The VM Department formed a Core Pollinator Program Team that works internally to enhance the skills and tools of planners, VM contractors, and leakage inspectors as well as externally, partnering with state pollinator programs, departments of transportation, collaborative groups like the ROWs as Habitat Working Group, and co-located utilities. Columbia Gas has formed relationships with conservation leaders within their six-state coverage area. Their close relationship with the Kentucky State Pollinator Program (a consortium of Kentucky Fish & Wildlife, Kentucky Department of Transportation, University of Kentucky extension officers, the state apiarist, state and local

conservation organizations, and industry) has provided abundant opportunities to jointly restore pollinator habitat, strengthen research and outreach programs, and to fund and provide natural resource education at local schools.

In the past four years, efforts to support pollinator habitat, both on- and off-ROW, have really taken flight. For more information about lessons learned or if you're interested in enhancing your vegetation program, please reach out to...

- Tony Tipton (jtipton@nisource.com), Leader Land Services & Vegetation Management at Columbia Gas
- Susan Murray (susanmurray@nisource.com), Land Technician II at Columbia Gas of Kentucky
- Colby Tisdale (ctisdale@arbormetrics.com)
- Steve Lowe (slowe@arbormetrics.com), Utility Arborist at ArborMetrics Solutions
- Stan Vera-Art (branchout@growwithtrees.com)
- John Steelman (scion@growwithtrees.com), consultants at Grow With Trees Company.





*Extend Pruning Cycles and
Increase System Reliability*

*Healthier Trees with
Darker Leaves*

*Increase Drought
Tolerance and
Disease Resistance*

*Improve Safety
and Increase
Customer Satisfaction*

Increase Fibrous Roots



FREE
POSTER OFFER!

Get a FREE 36x24" art print at
www.treecarescience.com/utilityposter

Transform The Way Trees Are Cared For Near Powerlines

A Proven Science That Changes The Game Of Vegetation Management

Cambistat[®]

TREE GROWTH MANAGEMENT SOLUTION

Rainbow Treecare Scientific Advancements

www.treecarescience.com/utility | 11571 K-Tel Drive Minnetonka, MN 55343 | P: 855-922-3810 | F: 952-252-0504

Judgement Day... For Grass

By Jason Grossman, Manager of Transmission and Distribution Vegetation, Liberty Utilities

Using technology to reduce costs is not a new concept for vegetation managers, but staying informed and up-to-date on new technologies can be hard and adapting them to fit within our existing processes is a challenge. Add in safety and environmental sustainability and the process can become daunting. Liberty Utilities Vegetation Management (UVM) group has come up with an innovative idea for facilities maintenance that circles “D) All of the above.”

The VM group was tasked with mowing facilities in 2018 and began implementing Robot Mowers. The electronic mower runs on a lithium ion battery, which helps reduce emissions from unregulated gasoline engines. They use a minimal amount of electricity and are very quiet when compared to traditional mowers. While they are very adaptable and customizable, they present some challenges for the conventional approach to mowing.

New robot mowers require a new way to think about the landscape design and maintenance. One of the challenges the VM group faced at the Kodiak Facility was the parking lot islands. Being a new facility, the parking lot islands had a conventional design with two trees at each end and a mix of Fescue and Bermuda to cover the compacted soil. For the first couple of years, these had been mowed with a weed whacker, which took a lot of time. With no effective way to get mowers to the island and the desire to reduce maintenance costs, these were converted into a native landscape design that has low maintenance requirements.

As the VM Group reviewed the locations for the mowers, they found themselves asking “Do we need to mow that?” In some cases the answer was “no” and a landscaping alternative was found. This opened the door for low maintenance alternatives such as pollinator plots that added



texture, dimension, and color to an otherwise vanilla landscape. When the answer was “yes,” they looked for a power source. Almost all of the infrastructure being mowed had not foreseen the invasion of robot mowers that would come and did not have outlets in convenient locations to power them. Office buildings were an easy fix by adding an outdoor outlet where needed. Substation locations had a building with power, but not in a good location to supply the robot mowers. This needed a little more thought, but after incorporating the Construction and Design group, a simple and cheap fix was concocted. With the low power usage, a 10kVA transformer that is typically used for street lighting and readily available was installed with a standard meter loop. This allowed an outlet to be installed outside the substation fence, but still on the property. For approximately the same cost as the transformer and installation, a solar-powered generator can be used, which virtually eliminates the carbon footprint of the robot mower. The small, portable generators can be hidden in plain sight within the substation fence to deter theft while effectively powering the robot mower. One of Liberty’s rural substations has approximately six acres of grass inside the fence, and the Union Labor Agreements requires a Substation Electrician to be present while it is being mowed. The solar generator, combined with the robot mowers, was a perfect solution to reduce the cost and allow Liberty’s Substation Electricians to work on more important tasks.



SILVER
LEVEL

Using the Solar Generator for a source of clean, renewable energy to power the robot mowers further adds to Liberty Utilities' sustainability image. The Robot Mowers themselves are touted as being more sustainable in the unique way they maintain the grass. More frequent mowing maintains the lawn at a specific height for a golf course look, but also has the advantage of recycling the cuttings faster due to the smaller size of the blade of grass. This eliminates the clumps of thatch that are left between mowing and the patches of dead grass that follow on subsequent mowing. Maintaining the grass at near-constant height also reduces the stress caused by cutting too much at once. Healthier grass requires less inputs/fertilizers to keep it looking good and thus reduces the costs as well.

Another benefit is reduced noise pollution. The robot mowers operate at a noise level of 57 decibels (dB) and can be run at night virtually unnoticed. Having a conversation next to the mower while it is operating is easy in comparison to a conventional mower that operates at around 100 dBs and requires ear protection. This feature is useful in urban settings where the mower can operate under the stealth of night and not disturb the neighbors. Adding on to the quiet operation is the ability to remove a person from the equation completely. Drive time between mowing locations is eliminated, as well as the exposure to hazards like fuel spillage, objects sent flying from the blades, and mowing high-risk areas. Most of the robot mowers on the market can handle slopes ranging from 15 to 45 degrees, reducing the risk of rollover for an operator.

How They Work

The robot mowers have a charging station that is their base of operation. A boundary wire connects to the charging station and is run around the perimeter of the area to be mowed, forming a loop. The boundary wire works like an electric dog fence and the mower

Battling Uncertainty

We've been trained for decades to do a thorough pre-task brief focused on identifying and managing every risk.

While this is a good practice, there's one major problem: vegetation management (VM) is complex and highly variable. We're lacking the certainty that can be found in routine environments.

To combat this, **Lewis Tree Service** is addressing ambiguity. In other words, we're training our teams to notice when they're in an uncertain situation and take action to learn more about the situation.

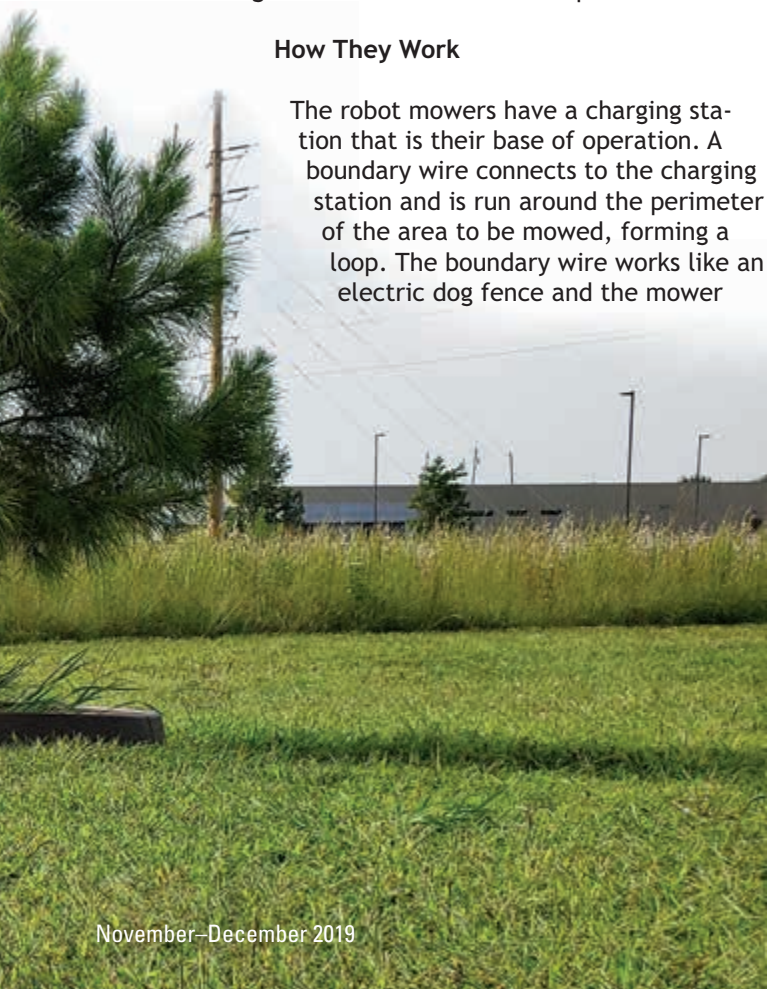
For example, during storm restoration, our crews may encounter deep water from storm surges and rain. To ensure safety, we tell them, "Don't drive through water deeper than the center of the tire." Guess what? There's a lot of ambiguity hidden in the simple statement. When they approach the water, they can make assumptions and categorize too soon.

Instead, we can encourage our teams to notice the situation and engage the "uns."

- Unknown: How deep is the water?
- Unclear: Are you in an unfamiliar area? Do you know the roads?
- Uncontrollable: How much water might be under the road? Can the road cave in?
- Uncertain: How fast is the water flowing? How strong is the current?
- Unseen: Is the water muddy? Is it dark or night time?
- Unstable: Was the road fine when you entered? Has the road flooded since?

Here's a clue: when you think or say, "It's probably just . . ." your mind is trying to reconcile uncertainty. Pause and enlist your team members to learn more about the situation.

In our example above, what could the crew do? Stop the truck. Get a little closer (within a safe range) to inspect the water. Look for movement in the water. Measure the depth with a stick. Together, the crew can make an informed decision.



can be set at varying distances to stop and turn around once it registers the wire. If the area being mowed has obstacles, like trees or a flower garden, a loop can be run around it and the mower will avoid colliding with the object. The robot mower has collision detection in the form of a floating frame, so if it does collide with an object, it will stop and turn around. The bigger units also use sensors to determine when an object is near and it will slow down to create a softer impact.

Also coming out of the charging station are guide wires. These are used to help the robot mower find the charging station or navigate through tight and difficult areas. When the battery reaches a certain charge, the robot mower will begin looking for a signal from the charging station. After an adjustable amount of time, it will start looking for the guide wire or follow the boundary wire back to the charging station. Adjusting time spent

looking for the charging station, guide wire, or boundary wire helps the robot mower find the quickest and best way back to the charging station in more complex mowing areas. When leaving the charging station, the robot mower can be set to follow the guide wire to a pre-determined length. This is useful if you have two areas that are separated by a driveway, narrow path etc.

Timers are used to schedule the mowing when it's convenient for you. Parking lots can pose a problem with cars overhanging the curb and causing the mower to miss areas during the work week. The easy solution is to start the mower after 5:30 p.m. and have it back at the charging station by 7:00 a.m. If the need exists, you could set it to run 24 hours a day on Saturday and Sunday.

Security is a big feature on these devices. When the mower is stopped, lifted, or moved outside the boundary

wire, an ear-piercing alarm sounds until the pin code is entered. The robot mowers have an app that can be downloaded to any mobile device that will send alerts anytime something is abnormal. Tracking can be done through the app with the global positioning system (GPS) installed in the devices. Knowing where the robot mower is at all times helps with piece of mind. The GPS also help the Robot Mower navigate through the lawn to ensure complete coverage and know where it needs to mow more frequently based on growing conditions.

Given all of these examples, you may be wondering why is there not a robot mower in every yard? Just like any tool, they need to be used in the right place and finding new and creative ways to utilize them will be up to future users. Robot mowers are an excellent example of how technology can help reduce costs, help the environment, and make operations safer.

GREEN RUNS DEEP

“Our foundation is based on family, character and values. These values play directly into our culture. It’s a feeling... a way of life – not something you can necessarily put into words. Being a Brother’s or Sister’s Keeper is more than a title. It’s a responsibility that everyone takes pride in. In our world, green runs deep.”

Vegetation Management • Storm Restoration • Work Planning

Since 1933. Employee Owned.

1.800.882.1216 www.wrighttree.com

Care for the Local Environment in Action

By Jenna Paul, Technical Writer, Davey Resource Group, Inc.

Matt Millette, Project Manager, Davey Resource Group, Inc. has led the charge on combining employee engagement and community environmental stewardship via the Adopt-A-Highway program.

Davey Resource Group, Inc. (DRG) utility foresters working in the Chicago, Illinois region with Commonwealth Edison (ComEd) have been bringing their concern for the environment to the community through their volunteer work. For the past three years, they have been clearing trash from a two-mile stretch of Swift Road through Adopt-A-Highway, beautifying the area through team-building. The project has become a mainstay for both the team and the community.

Three years ago, Matt Millette, project manager for DRG, was trying to incorporate more employee engagement opportunities for his team. When the Adopt-A-Highway program was suggested by a field supervisor, who enjoyed the program previously as a Boy Scout, the idea proved popular. “For people with an environmental background, this is a great way to give back to the community,” said Millette. Finding volunteer work that connected with the team’s values has helped maintain a driving force for giving up part of their Saturdays a few times a year for the cause.

They began cleaning their portion of Swift Road quarterly, which runs in front of the ComEd office, before raising it to five times a year. It acts as a thoroughfare between two of the busiest highways in the area, North Avenue and St. Charles Road, making it a high-traffic location prone to collecting litter from passing vehicles. Millette and his team have become efficient at the task, however. Clearing the trash takes them about two hours of work. An exception is the first cleaning after winter, which requires more time and manpower—but overall, the results are well worth the time invested.

The traffic also raises additional safety concerns. Safety is a core value for DRG, and the volunteer work reflects this concern. “Safety is such an integral value to us that it takes precedence whenever we meet,” Millette said. Every morning, they begin with a safety briefing to cover all potential risks and end with stretching to avoid strains and injury. The crew moves with the flow of traffic and uses a spotter when necessary to make the job as safe as possible.

Adopt-A-Highway may be a good fit for your team if you want to provide regular employee engagement opportunities and help restore your community’s environment. The program helps provide the basic equipment to begin cleaning, making it easy to get started. It also provides



Plaques at both ends of the two-mile stretch of Swift Road indicate that Davey Resource Group, Inc. is responsible for keeping this area clean for the community.

brand exposure through plaques recognizing the group who has signed up to clean the stretch of road at either ends.

Volunteering with Adopt-A-Highway has proved a rewarding experience, providing team-building, promoting local environmental health, and resulting in positive community recognition. Back in 2016, the project was only set to last for one year, but Millette and his team were hopeful that they would be able to continue. Three years later, they can’t imagine stopping and are constantly looking for more ways to expand their efforts.



Cultivating a Culture of Environmental Stewardship

By the Environmental Stewardship Council

It was just four years ago when the UAA added “environmental stewardship” as a core value in addition to safety and operational excellence. This was an important step toward integrating conservation and the protection of the natural environment into everything we do. Nevertheless, it is a process. We have experienced this when adopting the other core values. Through daily safety messages and safety-focused workshops, summits, and training, we live and breathe “safety” every day. It is undeniable that within the past few decades, safety has become a primary focus across our industry.

That wasn’t always the case. Some folks in our industry can clearly remember the days when safety wasn’t valued as it is today. A time when unsafe practices—unthinkable now—were performed just because “that was the way we

had always done it.” With time and through continuous attention and repetition, following safety rules has become the “norm” rather than the exception—even a condition of employment. But how long did it take us to get here? Perhaps 15 or 20 years? Will it take that long before environmental stewardship is part of our everyday practices?

Fortunately, in the case of environmental stewardship, we can build upon years of work others have begun. For instance, the Right-of-Way Stewardship Council (ROWSC) was established at the end of 2012 to promote sustainable integrated vegetation management (IVM) practices. The ROW Stewardship Accreditation program fully launched a little more than a year later to provide organizations a mechanism to demonstrate their excellence and commitment to implementing sustainable IVM practices to owners and investors. It is expected that the number of organizations seeking accreditation will continue to grow in the years ahead.

Shortly after the UAA announced our new core value, it invested in broadly communicating the value of environmental



ERIN CREEKUR, ARIZONA PUBLIC SERVICE

stewardship to our members and the public. Two short videos (“*The Stewards*” and “*LifeLines*”) were produced. *The Stewards* highlights the

value of IVM and biological control methods, while *LifeLines* addresses the vast potential for compatible ROW habitat across our landscapes. The videos have been presented at our conferences and summits and picked up by utilities’ internal communications channels. VM managers have shared these messages with their board of directors and incorporated them into requests for proposal.

In early 2019, the UAA created a new Task Force to assist in cultivating a culture of environmental stewardship. As a first step, the Task Force sent a survey to UAA members to better understand the current baseline of environmental stewardship across the industry at large. We learned that the majority of the industry not only sees the need for it, but also wants to play a role in becoming better environmental stewards of the ROWs we manage. The survey results identified common barriers to adopting habitat-

driven stewardship practices, including the lack of access to proper information and training tools, but also the lack of support from upper management.

To address these hurdles, the Task Force first launched a *Spotlight on the Environment* column, which is published in each UAA *Newsline* issue to bring attention to environmental issues and provide examples of what we can do to manage and enhance habitat on our ROWs. In addition, the Davey Resource Group (DRG) has assisted the Task Force in developing monthly environmental messages for the UAA social media accounts and monthly update e-mails.

The Task Force expanded the environmental section of the UAA’s website. In the “Learn More” section, you can find resources about environmental stewardship practices, including the library of videos and environmental messages. The website has a “Take Action” section where you can find information on the ROW Stewardship Accreditation program, as well as information about the newly developed Vegetation Management Maturity Model (VM3). The VM3 was designed by the Task Force to serve as a step-wise road map for how a VM department can best incorporate environmental stewardship at a department level or broadly within their organization. (Check it out! It is a fun, free, informative tool.) The UAA is looking at ways to incorporate a new model on environmental stewardship to the newly acquired Professional Utility VM (PUVM) course (previously offered by SAIT) that it will be administering going forward.

The Task Force is collaborating with the UAA Events Committee to secure environmentally focused speakers at every conference moving forward. The Trees and Utilities Conference in Cincinnati this past September featured a stand-alone environmental track and joint workshop with the ROW as Habitat Working Group. The UAA is also exploring options to co-host an environmental summit next year. This would provide an opportunity to bring together VM departments, environmental departments, regulatory agencies, and other organizations that are hard at work improving environmental stewardship such as The Nature Conservancy,



PENELOPE - PHOTOBAY



ANAND PERSAD, THE DAVEY INSTITUTE

Xerces Society for Invertebrate Conservation, Wildlife Habitat Council (WHC), and the ROW as Habitat Working Group.

In an effort to bring environmental stewardship on ROWs to the attention of upper management teams, the Task Force has worked to find ways to incorporate natural resources and biodiversity metrics into sustainability reporting. Task Force members are collaborating with EEI to tailor natural resources metrics in their environmental, social, and governance (ESG) reporting template. Other ESG indices, like the Dow Jones Sustainability Index (DJSI) and the Global Reporting Initiative, are increasingly looking for this type of information as well.

We realize that our efforts to date have just scratched the surface in terms of making environmental stewardship an integral part of our culture. There is a lot more we can do to bring attention to our new core value and support our members as they continue to implement stewardship practices, integrate a new way of thinking about and managing ROWs for habitat, and prepare for the future. Positioning the UAA such that it is recognized as a “green organization” can positively contribute to: a) attracting a more diverse workforce, b) providing an opportunity to develop a stewardship-driven career path, c) providing opportunities for contractors to supply additional services to the industry when it comes to maintenance and enhancement of early successional habitat, and d) working proactively with regulatory agencies.

As this year comes to a close, we are excited to see the Task Force transition to a formal UAA committee. This represents another important step by the UAA to better embrace a culture of environmental stewardship.

With today’s world keenly dialed into the global challenges we face—such as climate change, biodiversity loss, insect decline, and raging wildfires—we might ask ourselves if we have the luxury to take another 20 years to fully integrate environmental stewardship as a central tenet of our work culture. How can the UAA drive this positive change in the next five years?



©STOCKPHOTO/KOJHIRANO

We would like to invite you to join us in our efforts of promoting a culture of environmental stewardship within our industry. Please reach out to us. We would love to hear from you and have you join us on this important mission. In the meantime, we challenge each one of you to kick off your next meeting with an environmental message or quote alongside your safety message.

- Heidi Asplund (heidi.asplund@seattle.gov, Seattle City Light)
- David Bayard (david.bayard@seattle.gov, Seattle City Light)
- Josiane Bonneau (jbonneau@wildlifehc.org, Wildlife Habitat Council)
- Philip Chen (pchen@cutility.com, CNUC)
- John Goodfellow (jwgoodfellow@msn.com, ROWSC Tech. Advisory Committee Chair; Biocompliance Consulting Inc.)
- Jason Grossman (jason.grossman@libertyutilities.com, Liberty Utilities)
- Bradley Hall (bradley.hall@fortisalberta.com, Fortis Alberta)
- Kevin Jones (ACRT)
- Orville McLean (omclean@arbormetrics.com, ArborMetrics)
- Dr. Anand Persad (anand.persad@davey.com, Davey Resource Group)
- Robert Richens (rrichens@arbormetrics.com, ArborMetrics)
- Peter Stoltman (peter.stoltman2@oncor.com, Oncor)
- Stan Vera-Art (branchout@growwithtrees.com, Grow with Trees Company)



WUTERSPOOL - PIXELBAY

SPONSOR SPOTLIGHT

**GOLD
LEVEL**



Update: SGL 33 Research With Focus On Pollinators

By Dave Krause, Technical Manager, Asplundh Tree Expert, LLC

The past, present, and future of sustainable rights-of-way (ROW) management was on display on June 5–6, 2019 as key utility industry stakeholders gathered in State College, Pennsylvania for the inaugural ROW Sustainability Summit. The program, organized by the project cooperators Asplundh Tree Expert, LLC, Corteva Agriscience, FirstEnergy, PECO, and Penn State University also included organizations such as the National Fish and Wildlife Foundation, the UAA, and the ROW as Habitat Working Group. The summit presented the latest Pennsylvania State Game Lands 33 (SGL 33) research, conducted working sessions, and hosted a field tour of the research project, which is the longest continuous project of its kind.

The ROW Sustainability Summit provided attendees an opportunity to see the remarkable SGL 33 research site first-hand, but, more importantly, to promote collaboration with industry leaders and apply the findings to ROW across the country. For more than 65 years, SGL 33 has continuously studied how the use of integrated vegetation management (IVM) principles enhances and preserves wildlife habitats, including those of pollinator species.

“The key with using herbicides as part of an IVM program is the selectivity it provides—you can use herbicides to target only particular noncompatible species and let the native vegetation grow,” said Dr. Carolyn Mahan, professor of Biology and Environmental Studies at Penn State University and SGL 33 principal investigator. “We’ve also found that, with time, as we use herbicides selectively, we need fewer and fewer of them as we start to develop a stable plant community that is dominated by forbs, herbaceous vegetation, and compatible shrubs, which is excellent native habitat for wildlife and pollinators.”

A new Pollinator Habitat Scorecard was debuted by the ROW as Habitat Working Group to help guide vegetation managers in assessing, developing, and maintaining high-quality habitat on managed ROWs. The scorecard comes at a time when the U.S. Fish and Wildlife Service (USFWS) is considering the addition of the monarch butterfly to the Endangered Species List, with a decision expected in 2020.

“Seeing the abundance of pollinators present on the SGL 33 research site—everything from butterflies



to bees to beetles—is powerful,” said Asplundh Technical Services Manager Dave Krause. “SGL 33 continues to effectively demonstrate how herbicides play a key role in maintaining critical habitat for various species, but especially the pollinators.”

The SGL 33 project started in 1952 in response to concerns by hunters about the effect of herbicides on game species within electric transmission ROW. Since its inception, SGL 33 has documented the use of herbicides as a best management practice (BMP) for ROWs, including IVM.

In recent years, SGL 33 has turned its attention to pollinators since global populations continue to decline. However, researchers found that the use of selective herbicide applications is especially effective in establishing and maintaining early successional plant species on ROWs, which make these areas more desirable to pollinators and many other important wildlife species, such as amphibians, reptiles, birds, and deer.

ASPLUNDH®

why strain?®

Use a Leverage Booster

- Super Leverage = Super Stability
- Avoid Rotator Cuff injury
- Enormous Leverage makes the job easier



These tools are Heavy! We can Help



For "Hot Sticks" and Extension Poles 10' 20' 30' 40'



Used by
Arborists
Utility Lineman
Utility Arborists
Groundskeepers



Use with Power pole saws, Pole saws, Pruners, Hedge trimmers and Weed Whackers



whystrain.com
superezworktool.com

sales@superezworktool.com

Rethinking Planning and Specifications to Promote Habitat and Stewardship

By Jarod Cassada, CVMC, LLC

OPINION EDITORIAL

As an industry, UAA members and their peers manage several million miles of powerline corridors. By some estimates, more than 21 million acres of habitat in the

U.S. lie within the shadow of a powerline. This habitat supports a diverse ecology that bridges and ties our wildlife communities together. We are stewards of an amazing asset, essential not only to power the economy, but the environment as well.

Stewardship is taking care of something. Competence is doing something successfully. The good thing is we do not need to be perfect to be competent in our stewardship efforts. We don't even need a perfect vision for what a right-of-way (ROW) should look like or how it is best managed for habitat. We need our companies, peers, contractors, customers, workforce, and trade associations doing it imperfectly, together. Thousands of imperfect efforts can still have the desired impact!

How to Start?

There are many ways to improve stewardship by adding, modifying, or even removing aspects of an existing program. They may be as simple as reducing mowing during peak periods of



Monarch butterfly (*Danaus plexippus*) migration or as complex as completely overhauling a corporate culture. A good exercise for any vegetation management (VM) team is to brainstorm a list of stewardship ideas. What can you do for no cost? What can you do for some cost? What could you do that might save money? A limited number of ideas can be explored in a single article, so I have focused the remaining paragraphs to some ways stewardship may be impacted through contracting.

In the utility industry, the majority of work is performed through contractors. The contractor has a

unique (yet difficult) task of training their workforce for safety, performance, and other professional skillsets. This is how they bring value. Fortunately, the same characteristic that allows a contractor to be successful from the perspective of safety and productivity is complimentary to what is needed to support habitat in the ROW—their ability to attract, retain, and cultivate a competent workforce. This is a foundation for best management practices (BMPs) and ROW Stewardship.

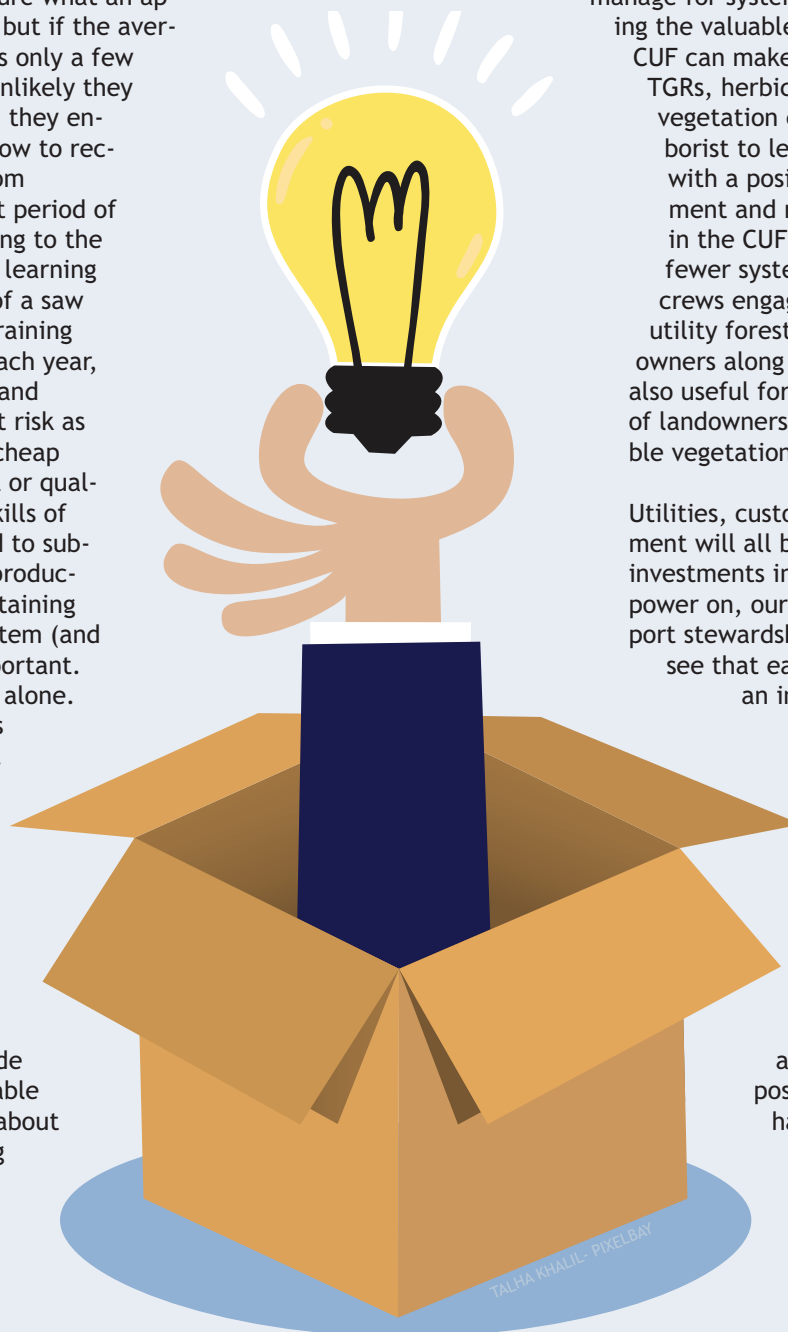
Utilities and contractors often engage in business practices that hamper workforce development. Utility vegetation managers should engage their procurement departments in candid conversations about their desired goals and the best contract strategies to obtain those. I am not sure what an appropriate turnover rate is, but if the average worker on a system has only a few months' experience, it is unlikely they will know what to do when they encounter a nesting bird or how to recognize pollinator plants from incompatible brush. In that period of time, many are still adapting to the rigors of outdoor work and learning how to use the sharp end of a saw safely. If forepersons are training two to four new workers each year, it is probable that habitat and stewardship are as much at risk as productivity and safety. A cheap crew rarely yields low-cost or quality work. Cultivating the skills of front-line workers can lead to substantial returns in safety, productivity, and stewardship. Retaining those investments on a system (and in the industry) is very important. Contractors cannot do this alone. Contractors and companies must partner in this effort. We must put aside destructive procurement practices in favor of intelligent partnerships that benefit the company, contractor, customer, and the environment. Where budgets permit, those practices should also include building a well-trained, stable workforce knowledgeable about the communities (including plant and wildlife) a utility serves rather than a reliance on mobile crews.

Rethinking the “Box”

Clearing vegetation a fixed distance above, below, or beside the powerlines is likely to result in expenditures that add no value. Worse, as arborists spend time pruning or clearing trees that pose a low risk, it is keeping them from managing trees that pose a higher risk to the system. Consequently, working fewer trees can reduce impact on ROW habitat and improve reliability indices! Cultivating a stable, well-trained workforce is necessary when the scope of work moves from simple “measure and cut” to “assess and prescribe.” Integrating contract utility foresters (CUFs) is one strategy that can be used to apply line clearance and chemical applications more effectively.

One job of the CUF should be to find ways to manage for system integrity without applying the valuable arborist to each tree. The CUF can make assessments for use of TGRs, herbicides, or to simply pass vegetation entirely. This moves the arborist to legitimately work faster and with a positive impact to environment and reliability. The investment in the CUF is offset by avoided work, fewer system outages, and by keeping crews engaged productively in the utility forest rather than with property owners along the wire-ways. The CUF is also useful for educating many thousands of landowners about powerline-compatible vegetation.

Utilities, customers, and the environment will all benefit when we cultivate investments in the people that keep the power on, our economy strong, and support stewardship. We must do our part to see that each man or woman behind an integrated VM (IVM) tool will have the skills to apply it correctly and at the right time. This may not be as neat and tidy as distributing packets of wildflower seeds with our company logos, but it points thousands of imperfect efforts in the same direction and will create a pattern of positive impact on the ROW habitat in our care.





Has climate change adaptation also been on your mind?

By Josiane Bonneau, Chief Operating Officer, Wildlife Habitat Council

OPINION
EDITORIAL

For many of you, every day brings an opportunity to discuss, hear, or learn about climate change. The “why and how” is often on the forefront of the conversation in what seems at times like an endless debate. Publications on current and future climate change impacts are clear and frequent; a most notable example released a few months ago by the Intergovernmental Panel on Climate Change (IPCC) reports an alarming global warming of 1.5 °C.

The IPCC report, unlike many of its precursors, refreshingly weighs in on land use and sustainable land management related to climate change adaptation and mitigation. However, the context is still adapted to large swaths of land managed by government—not the private sector. The solutions investigated are also limited to decade-long projects of reforestation and agroforestry which are rarely fitting with ROW management.

The more I hear about such long-term incompatible tactics, the more I want to influence the discussion of adaptation and mitigation to focus on **immediate, practical solutions** for land managers.

The Wildlife Habitat Council (WHC) had the opportunity to present recommendations for climate adaptation actions just last year at the 12th Symposium for Environmental Concerns on Rights-of-Way (ROW) Management (ROW 12) in Denver and again at the 2019 Trees and Utilities Conference in September. Climate change adaptation strategies, in

general, seek to enhance the resilience of ecosystems and the built environment against the impacts of climate change. Examples of these strategies for natural systems include managing ecosystems to include species more tolerant of more pronounced cycles of drought and precipitation and enhancing movement corridors for wildlife as species ranges change.

From a conservation perspective, it is proven that an array of land management practices in use in ROW management support climate change adaptations. From a WHC Conservation Certification® perspective, hundreds of programs across the globe confirm the pursuit of activities supporting resilient ecosystems and wildlife populations by corporate landowners. From a utility perspective then, why are we not hearing about the leadership that many corporations are demonstrating in embracing corridor creation, invasive species control, management of shifting species ranges, etc.? All of which are considered valid approaches to more resilient ecosystems by the scientific community and government bodies?

I asked that last question at the conferences. Why were the attendees at ROW 12 and Trees and Utilities, many VM professionals, not taking credit for the climate change adaptation efforts and outcomes they were clearly committed to?

The unofficial answers we collected from the audience pointed to one

main barrier: risk, mainly with external stakeholders, in framing VM and stewardship actions within a climate change perspective.

Familiarity with climate change adaptation in the corporate environmental sector appears to be evolving. Adaptation is still often a novel topic for many in any given room, as is the correlation between the suggested practices and their direct support of climate change adaptation. In a risk-conscious corporate environment, new concepts can be challenging to defend and sell. Therefore, it is not surprising that professionals reported their concerns in proposing to leadership an external message linking their land management efforts to climate change adaptation benefits.

Without internal buy-in, a public-facing narrative aligning land management practices to climate change adaptation benefit will remain challenging. However, I am convinced that we can—and should—view such land management practices within a climate change adaptation framework and that when we do so, we will advance meaningful change that is immediate and practical. To do this, we need to raise awareness about the ROW management actions that support climate change adaptation, develop a process to mainstream into industry, and create a language to allow managers to talk about it. Only then will we reduce the perceived risk, increase participation, and contribute nature-based solutions to a complex challenge.

SAFETY SERVICES



SAFETY POWERED BY PEOPLE

People drive the industry. Without people, there is no industry. The same can be said with safety. Your safety program exists to protect your people, but they can only stay safe by using safety best practices themselves. That's why we offer a suite of Safety Services like safety gap analysis, crew assessments, safety auditing, auditing software, competency training, and expert witness testimony. These services ensure that your program is comprehensive, that your people follow it at all times, and that your organization benefits from a continual reduction in safety-related incidents.

Learn more at acrt.com/safetyservices



*We empower the best people to help
sustain our world. 100% employee-owned.
Independence guaranteed.*

RELIABILITY MADE SIMPLE

YOUR RESULTS DEPEND ON OURS

Your customers rely on you to provide the energy that powers their lives. You rely on Davey to improve the reliability of your grid and enhance the safety of your communities.

We rely on data, technology, our people and proven solutions to impact your reliability metrics.

daveyutilityolutions.com



ASSET
MANAGEMENT



ENVIRONMENTAL
CONSULTING



LINE
CLEARANCE



STORM
RESPONSE



VEGETATION
MANAGEMENT



TELECOM
CONSTRUCTION

Arborist Exchange Program



Ever feel like you can't see the urban forest for the trees? Get the wide angle view through the eyes of your colleagues!

The Arborist Exchange Program offers municipal foresters, utility arborists, and tree non-profit managers around the world the opportunity to engage with colleagues and experience urban forestry challenges and successes in varying political and cultural settings.

Participants will spend one week together in each other's community learning about their jobs and how challenges are met under differing circumstances and with differing goals. Actual dates will be chosen by the participants. Exchanges include social time as well as working time. Partners are encouraged to host each other, but one-way exchanges are also acceptable. Cross-organizational exchanges are encouraged. Travel expenses are reimbursable.

Since 2003, arborists from the United States, Canada, Slovenia, Ireland, Brazil, South Africa, Italy, Germany, New Zealand and the United Kingdom have participated in the program. Here's what some of them have to say:

"You get to see the same things, the same problems, but from a different perspective, through the eyes of someone doing the same job as you. For me it gave me a sense of detachment—a sort of arborist out-of-body experience, from which I could observe and learn." — Andy McCutcheon, 2006

"The exchange far surpassed my expectations. Not only did I have glorious weather—more representative of a southern California spring than winter—but the friendships I developed are of immeasurable value to me. For me, the exchange was more valuable than any conference I've attended in my 16 years of practicing urban forestry." — John McNeil, 2005

"With everyone I talked to, rode along with, or learned from, I noticed one commonality: passion. Passion to inspire the young, to maximize tree survival, to increase canopy—but perhaps most importantly, true passion for the people and trees of Washington DC." — Matthew Stephens, 2015



To learn more about the Arborist Exchange Program and to apply, visit:
www.urban-forestry.com

Applications are due by December 2, 2019.

You will have the opportunity to:

- Dig deep into urban forestry as seen by a municipal arborist, utility arborist, or non-profit professional.
- Understand tree management from another seat, and test your assumptions.
- Share successful collaborative projects between municipal and utility arborists.
- Experience peer-to-peer learning not offered anywhere else.
- Learn new techniques and solutions to shared challenges.
- Expand your professional network.
- Share your successes and promote your program.



Cities4Forests



The Arborist Exchange Program is a partnership between the Society of Municipal Arborists, the Utility Arborist Association, the Alliance for Community Tree, Cities4Forests, and the Arbor Day Foundation.

SURVEY QUESTIONS

Regional Reports include responses to the following survey questions regarding environmental stewardship:

1. Are there any trends or circumstances (challenges) that are local to your region with regard to environmental stewardship on rights-of-way (ROWs)?
2. Do you engage with any local organizations to develop environmental or habitat stewardship projects? If so, what has been your experience?
3. Does your utility have an annual suitability report and have you discussed how your program could provide support?
4. Does your utility have information on their website on the benefits of pollinators?
5. Do you have a way to quantify the acres in sustainable vegetation types?

■ *Northeast Region*

By Guy Vogt, response by Richard Arnold, Vegetation Manager, Transmission, PSE&G

1. New Jersey (NJ) is a highly regulated state and the population is extremely sensitive to environmental issues; there is no indication that this will change. PSE&G has more than 140 different state and federally listed threatened and endangered (T&E) species on our rights-of-way (ROWs), and in most cases, multiple species in individual spans. We maintain a very close relationship with the state and federal regulatory agencies and have a robust proactive environmental program to ensure all VM activities comply with the numerous work window requirements and other environmental regulations. Additionally, PSE&G personnel spends a lot of time answering questions and informing property owners and municipalities on our system of regulatory requirements, PSE&G's vegetation management (VM) program and the benefits of the integrated VM (IVM) approach.

2. Yes. PSE&G has a close partnership with the NJ Department of Environmental Protection (DEP). Additionally, we work closely with the U.S. Fish and Wildlife Service (USFWS) on federal lands and concerns related to federally listed T&E species. We have a longstanding relationship with the NJ Audubon Society and we are currently working with them on a rare bird species found primarily on our ROWs. We have worked with Rutgers University personnel in the past regarding environmental issues and are currently in the middle of a multi-year study on the effects of various VM practices on pollinator habitat with a well-regarded researcher with Rutgers University. We have in the past and continue to work with various municipal and county governments by establishing pollinator

UAA needs your help!

Every two months, UAA Regional Representatives can provide a report for the *Utility Arborist Newsline*. Let them know what is going on in your company or in your region.

International (Brazil)

Pedro Mendes Castro...pedro@cemig.com.br

Midwest

- Nate Carlislencarlisle@wrighttree.com
- Dylan Evansdylanevans@rockymountainpower.net
- Mike Greermgreer@interhop.net
- Donald Lovatodlovato@treesinc.com
- Tim Mackeytmackey2@ameren.com
- Frank McGrawfmcgraw@firstenergycorp.com
- J. Michael O'Connor ..jmoconnor@cmsenergy.com
- Andy Olson.....andy.olson@ecemn.com
- Scott Skopecsskopec@cuiivre.com
- J.M. Sparkmanjmspark@eci-consulting.com

Northeast

- Guy Vogtguy.vogt@pseg.com
- Nathan Wright.....nathan.wright@us.ngrid.com

Northwest/Western

- James McKendryjames.mckendry@bchydro.com

Pacific Northwest

- Brett Huetbrett@southerndr.com

Southeast

- Dennis S. Detardennis.s.detar@dominionenergy.com
- Jess Masonjmason@acrtinc.com

Southern

- Steve Bostockssbostock@aol.com
- Steve Whitesteve.white@davey.com

Southwest/West Coast

- Krassimir Piperkovkp@enview.com

habitat and assist with other environmental concerns that they may have. Also, we have engaged various game groups in NJ to discuss VM practices and their effect on game species habitat.

3. Not that I'm aware of.

4. No, not currently. PSE&G has done and is doing a lot of work regarding environmental stewardship through specific projects, as well as through the use of appropriate VM activities and techniques. To date, PSE&G has done a poor job with promoting these efforts and accomplishments; however, there is an active initiative to develop a means of chronicling the various environmental stewardship accomplishments and projects and potentially creating a page on our website for the public to have access to this information.

5. PSE&G has a robust and comprehensive environmental program. This includes a database that is continually updated, which lists all identified T&E species present, as well as potential habitat by span. VM activities are performed in accordance with the applicable work windows and environmental regulatory requirements. PSE&G has a close partnership with the NJDEP and utilizes internal environmental personnel as well as third-party environmental contractors to monitor the lands that our transmission system occupies as well as oversee compliance with all environmental requirements.



AN EXPERT APPROACH TO BEST-IN-CLASS PERFORMANCE.

We have expanded our team of experts to bring you the next generation of consulting and field services for utility vegetation management that have made ECI the industry leader for the past 45 years.

OPERATIONS

- › Program development and optimization
- › Insect infestations (emerald ash borer, western bark beetles)
- › Professional field personnel
 - Contractor safety
 - Work planning
 - Customer notification
 - Work auditing
- › Federal and state regulatory compliance

TECHNOLOGY

- › Unmanned Aerial Systems (UAS) program development
- › Remote sensing (LiDAR, imagery) program analysis
- › Software selection and implementation
- › Geospatial and statistical analysis

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.

UTILITY ARBORIST ASSOCIATION

A Professional Affiliation of the
International Society of Arboriculture

Utility Arborist Newsline

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

Non-Profit Org
U.S. Postage
PAID
MOS



**SAFE
IS THE ONLY
WAY WE WORK**



At Asplundh, we have always equipped our workforce with the tools, knowledge, and support to ensure a strong safety culture and secure workplace, including:

- **Safety Management Process**
- **SafetySuite**
- **TapRoot®**

ASPLUNDH.COM ▪ **1-800-248-TREE**

ASPLUNDH®

A BETTER WAY