



RIGHT-OF-WAY STEWARD ACCREDITATION

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26 OCTOBER 2015

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EXECUTIVE SUMMARY

Right-of-way corridors, such as those managed for high power transmission lines, pipelines, and highway systems, include tens of millions of acres. These corridors have the potential, if managed appropriately, to link ecosystems in a beneficial way while still meeting the legal responsibilities and public safety needs of utilities. Today, there is increasing pressure on key pollinator species and the plants and ecosystems that rely on them due to the loss of habitat, fragmentation, pathogens, invasive species, and climate change. Appropriately managed right-of-way corridors can help address many concerns regarding these species and contribute to regeneration of key plant and pollinator species across the continent. Integrated vegetation management (IVM) provides a methodology and techniques for managing these corridors in a manner that optimizes their use in meeting both local and regional land management objectives.

The Right-of-Way Steward accreditation program, administered by the Right-of-Way Stewardship Council (ROWSC)¹, establishes standards of excellence for responsible right-of-way vegetation management on utility transmission corridors. The accreditation process presents an opportunity for companies to demonstrate their commitment to such standards, and third-party recognition ensures an independent, proven process to convey credibility and bring recognition to integrated vegetation management (IVM) programs.

The purpose of this report is to introduce right-of-way accreditation as another tool in the sustainable systems management toolbox and to discuss the experience of participants to date in the ROWSC accreditation process as determined through an online survey of utility representatives. The survey was designed to better understand participant's organizational goals and objectives, how those objectives have been realized thus far, and to identify areas of process improvement.

The results suggest that early adopters find ROWSC accreditation helps demonstrate commitment to the environment and to gain credibility in the marketplace, while also supporting innovation in utility management and improving IVM processes. Increased participation by utilities and greater recognition of ROWSC over time will likely greatly benefit new and existing accredited utilities in gaining recognition for their efforts to support key plant and pollinator species. There are a number of areas for improvement that have been and are being addressed that can support expansion of the program and increasing benefits to participants.

INTRODUCTION

Third-party certification is a proven way to demonstrate participant's commitment to meeting publically available standards of excellence in managing critical ecosystems. Certified organic, Marine Stewardship Council, Forest Stewardship Council, Sustainable Forestry Initiative, and LEED Certification are all systems that have enjoyed a level of success over the past twenty years in critical arenas such as agriculture, forestry, fishing, and construction. Additional opportunities exist to apply lessons learned from the experiences of these systems.

Right-of-way corridors, such as those managed for high power transmission lines, pipelines, and highway systems, include tens of millions of acres that have the potential, if managed appropriately, to link ecosystems in a beneficial way while still meeting the legal responsibilities and public safety needs of utilities. Today, there

is increasing pressure on key pollinator species and the plants and ecosystems that rely on them due to the loss of habitat, fragmentation, pathogens, invasive species, and climate change. Appropriately managed right-of-way corridors can help address many concerns regarding these species and contribute to regeneration of key plant and pollinator species across the continent. Integrated vegetation management provides a methodology and techniques for managing these corridors in a manner that optimizes their use in meeting both local and regional land management objectives.

“Integrated Vegetation Management” is a phrase coined by right-of-way industries such as electric utilities, railroads, pipeline operators, and roadway managers, to describe procedures for managing right-of-way (ROW) vegetation. It has been described as:

“A system of managing plant communities in which compatible and incompatible vegetation is identified, action thresholds are considered, control methods are evaluated, and selected control(s) are implemented to achieve a specific objective. Choice of control methods is based on effectiveness, environmental impact, site characteristics, safety, security and economics. The reason for IVM is to promote sustainable plant communities that are compatible with the intended use of the site, and discourage incompatible plants that may pose concerns, including safety, security, access, fire hazard, utility service reliability, emergency restoration, visibility, line-of-site requirements, regulatory compliance, environmental, or other concerns.”

(ANSI 2006; ISA, via Gardner, 2007)

In theory, IVM has the potential to provide a baseline for good land management practices that governing agencies and other responsible authorities can use to judge performance and to address the concerns of various organizations and stakeholders including both abutters and environmental groups. A wide variety of management approaches can apply under this broad definition of IVM.

Two questions arise in the assessment of IVM programs:

1. *What do well-managed corridors actually look like?*
2. *How do we know good management of corridors is occurring?*

RIGHT-OF-WAY STEWARDSHIP COUNCIL ACCREDITATION

To address these questions at an industry-wide scale a steering committee representing a broad group of stakeholders (see textbox below)¹ including environmental organizations, public representatives, utility companies, and utility associations got together and created the Right-of-Way Stewardship Council (ROWSC). The ROWSC administers an accreditation program that establishes standards for responsible right-of-way vegetation management along corridors and provides third-party accreditation to utility managers who are meeting those standards. The program also promotes the application of integrated vegetation management (IVM) and best management practices (BMPs) to the utility vegetation management industry in order to maintain power system reliability and address ecological concerns. ROWSC began pilot accreditation activities in 2013.

¹ Stakeholders listed are organizations that provided input into the formation of the organization and the defining of accreditation

The accreditation program provides standards of excellence for environmental stewardship and presents an opportunity for companies to demonstrate their commitment to such standards. Third-party recognition ensures an independent process to convey credibility and bring recognition to IVM programs. The benefits of accreditation reach beyond the practitioner's sphere; it has the potential to positively impact the industry, communities, stakeholders and agencies. Since its formation in 2013 the ROWSC has assessed and accredited seven utilities operating across twelve states and one province of Canada, including AltaLink, Arizona Public Service, Bonneville Power Administration, New York Power Authority, Pacific Gas & Electric, Sacramento Municipal Utility District and Vermont Electric Company.

The ROWSC *Accreditation Standards for Assessing IVM Excellence*² document (Standards) was piloted in 2013 and finalized in February of 2014. ROWSC Standards include ten principles, thirty-one criteria and one or more indicators for each criterion. Utility applicants must comply with all criteria to become accredited. Applicants do not necessarily need to address all indicators to meet the requirements of an individual criterion (e.g., some indicators may not be applicable to a given applicant).

The accreditation process is based on an independent assessment of the utility manager's practices against the Standards. This process has four core stages:

- **Application** – applicant completes a brief form that provides enough information to generate cost estimates and anticipated process details (e.g. auditing time on-site)
- **Gap Analysis** – a phone call between ROWSC and applicant to review Standards in detail and clarify any questions applicant may have about assessment process and for ROWSC to provide feedback on any documentation the applicant wants reviewed. At this point the applicant decides whether to proceed or not.
- **On-site Assessment** – the audit team reviews applicant's documentation and visits a number of sites randomly selected on the applicant's corridors to be representative of the organization's breadth of practices.
- **Final Report and Recommendations** – draft is written by lead auditor and supplied to applicant for feedback and response before final document is submitted to ROWSC Board with recommendation for accreditation.

ROWSC Stakeholders

Asplundh Tree Expert Co.
 Audubon International
 BioCompliance Consulting, Inc.
 Bonneville Power Administration
 Charlton & Associates, LLC.
 CN Utility
 Cornell University
 Dovetail Partners, Inc.
 Dow AgroSciences
 DuPont
 Duquesne Light
 Electric Power Research Institute
 Energy Initiatives Group
 Energy Initiatives Group
 Environmental Consultants Inc.
 EPA
 Exelon
 First Energy
 IVM Partners
 NY Power Authority
 Pacific Gas & Electric Company
 PacifiCorp
 Pollinator Partnership
 Private Citizen
 Progressive Solutions
 Purdue University
 The Nature Conservancy
 Utility Arborist Association
 Wildlife Habitat Council

If successful, the ROWSC accreditation is offered for five years with annual audits to ensure continued compliance. Three of the audits are "desk audits" based on a review of submitted documents and discussions. A

² Available at <http://www.rowstewardship.org/standards>

fourth audit is a mid-cycle audit and includes an on-site visit. The timing and content of the annual audits (especially the on-site version) are based on the results and recommendations in the initial assessment.

OBJECTIVE OF RESEARCH

The purpose of the survey was to explore the experience of participants to date in the ROWSC accreditation process in order to better understand their organizational goals and objectives, how those objectives have been realized thus far, and to identify areas of process improvement for increased effectiveness and efficiency. One specific goal of the survey was to gain detailed information associated with various stages of the process to identify opportunities for improvement.

METHOD

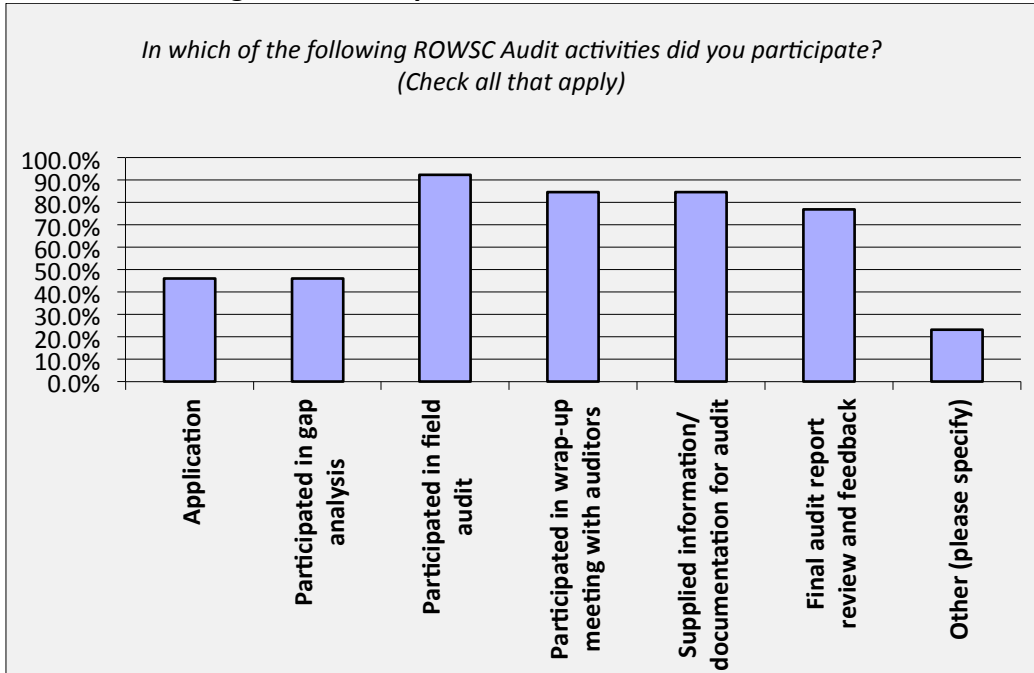
This project assessed the early adopter utilities of ROWSC accreditation as to their experience with the accreditation process. An online survey was employed to gather feedback from participants in the ROWSC accreditation process in 2013 and 2014. The survey instrument (Available in Appendix) included 28 questions with 21 close-ended and 7 open-ended. Most open-ended questions provided respondents with the opportunity to offer recommendations for improvement on specific aspects of the process. Due to the number of utilities included in the survey, results are not necessarily representative of the industry as a whole but do provide a good census of participants to date.

RESULTS AND DISCUSSIONS

There were thirteen respondents from six accredited utilities (includes all accredited utilities from the first full year of ROWSC accreditation practices, including pilots). Both small and large utilities responded. Respondents from the utilities held a wide range of roles and titles at the utility, from Supervisor of Right-of-Way Management to Utility Arborist and Archeologist. Respondents overall were very experienced in their area of expertise, with eighty-four percent having 10 or more years of experience and fifty percent having more than 15 years. Twelve of thirteen respondents reported having a degree related to vegetation management.

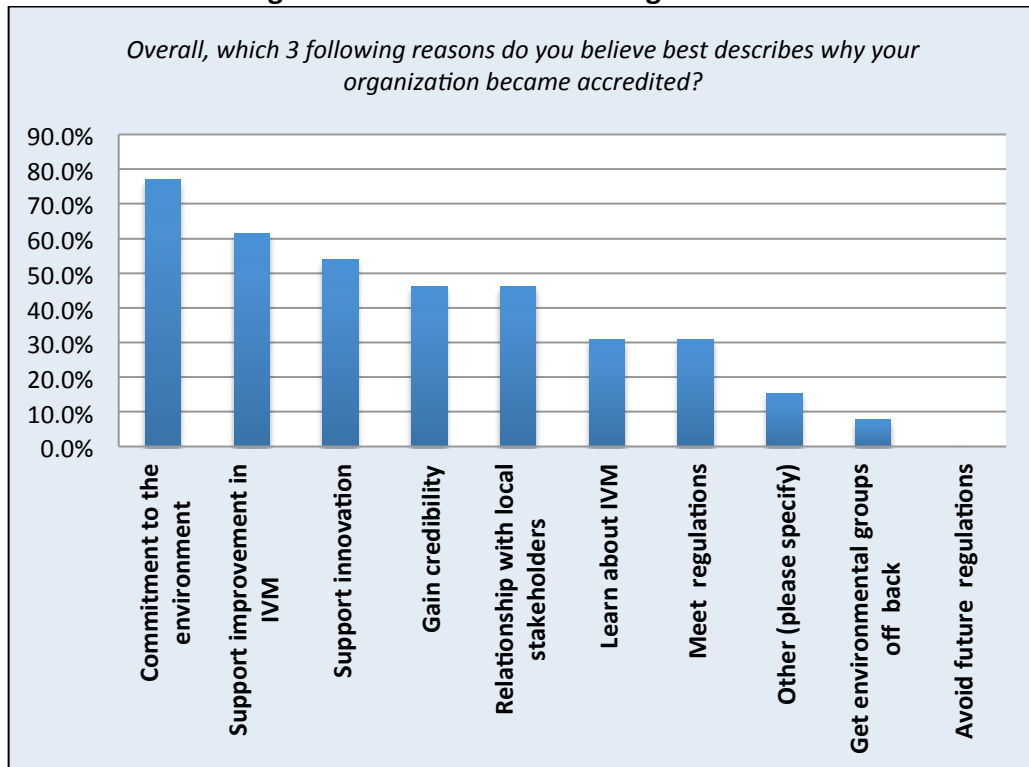
In general, utilities were well prepared for the assessment process. Eleven of thirteen of respondents reported that they or someone in their organization had reviewed the ROWSC Accreditation Standards prior to applying. From the chart below (Figure 1) it can be seen that most respondent's experience was dominantly with the on-site or "field" audit. In general, this response reflects the ROWSC approach to the process where only a few people (one or two) are needed for the application, gap assessment, and final report review stages, whereas a large number of people are involved in the field audit (also dependent on the size of the utility).

Figure 1. Participation in ROWSC Audit Activities



Utilities had a number of reasons for becoming accredited (Figure 2), the most common being to clearly demonstrate their commitment to the environment to internal and external stakeholders. The second most common objective was to support improvement in their IVM process. Third was to support innovation in utility management and fourth was to gain credibility in the marketplace.

Figure 2. Reasons for Becoming Accredited



All of the respondents reported that the accreditation process was a beneficial learning experience. Respondents commented:

- *“The entire experience, while challenging and time-consuming, was exceptionally valuable and educational.”*
- *“Having two professionals whom I did not personally know, come here to audit our system and provide their insight and knowledge was extremely valuable.”*

In reviewing the details of the process itself, ninety-two percent felt that the process was completed in a timely manner. One respondent noted:

- *“The auditing team, and Dovetail Partners (Program Administrator and Fiscal Agent) were very professional and supportive during the process.”*

APPLICATION & GAP ANALYSIS STAGES IN PROCESS

Specific to the application stage of the process, nearly half of respondents did not participate in that stage of the accreditation. Of those that did participate in the application stage, forty-three percent found the process to be simple and straightforward. No respondent thought the application process itself to be confusing or unclear, or could have been made clearer. But, a majority did feel that the process was more complex and time-consuming than they expected. All participants in the Gap Analysis found it to be thorough and extremely valuable.

Respondent Recommendations

- *“We were fortunate to have an independent consultant contracted to support the application process, data gathering, etc. I highly recommend this for all utilities.”*
- *“(Gap Analysis) Extremely useful. Pattern requests for documentation utilities will likely have or need to support other audits such as NERC, OSHA, pesticide, etc.”*

ON-SITE AUDIT AND WRAP UP MEETING

Thirty-eight percent of respondents found the on-site audit to be thorough and fifty-four percent found it to be a valuable use of time.³ Only one respondent had not participated in the auditing process. No respondent felt the process was a waste of time, was more thorough than necessary, or could use improvement. All respondents that participated in the wrap up meeting that followed each audit found the auditor’s discussion of results to be clear and helpful.

Respondent Recommendations

- *“Seeking input was useful to ensure best use of time to allow auditors to see complete snapshot of right-of-ways.”*
- *“Auditors could have been more clear about what they wanted to see before hand.”*
- *“(Wrap up meeting) Very helpful and valuable”*
- *“Although I realize that everyone’s time is valuable, I think it would be very important for the team to insist on management above my position to be at this meeting.”*

³ These two responses were not mutually exclusive and multiple choices were possible (i.e. could be the same people).

REQUESTS FOR DOCUMENTATION AND FINAL REPORT REVIEW AND FEEDBACK

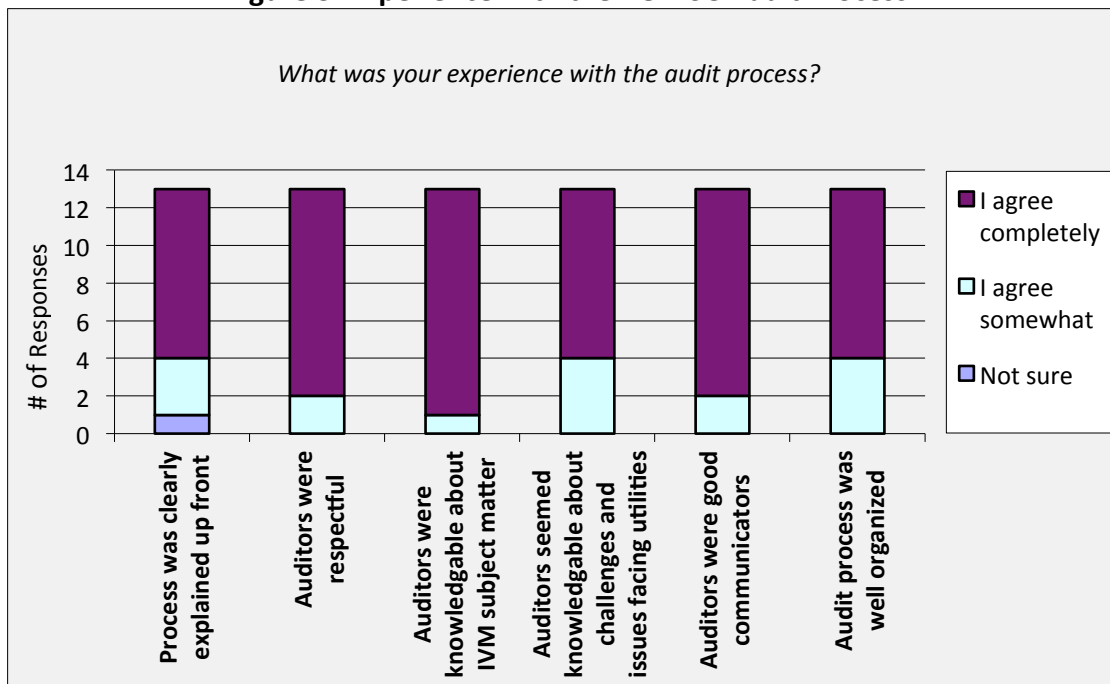
Ninety percent of those that participated in supplying documentation felt the requests for documentation were clear. Ninety percent also felt the final report results and feedback were clear.

Respondent Recommendations

- *“Possibly look at central share point to support data storage and templates for long term electronic documentation.”*
- *“Some comments were vague and could be more defined.”*
- *“Very helpful and valuable. For consideration.... it might also be helpful to share ‘industry best practices’ from peer utilities for improved consistency across the industry.*
- *“The final report was fairly academic in nature. I understand that many auditors have an academic background, but it would be more helpful to the utilities to emphasize applied aspects of IVM and vegetation maintenance.”*

Respondents were asked to evaluate their experience working with the auditing team. The graph below (Figure 3) captures their responses to six key areas. Overall, the respondents appear to agree the auditors were respectful; knowledgeable about IVM, challenges and issues; and good communicators. The auditing teams appeared to have explained the process clearly up front and were well organized.

Figure 3. Experience with the ROWSC Audit Process



Respondents were asked to choose which statements reflect their experience to date with accreditation. Table 1 below reflects their responses.

Table 1. Experience with Accreditation and Results

Answer Options	Response Percent
We have learned more about IVM	76.9%
Accreditation has helped gain support for improvement in IVM process	76.9%
It is clearer to all that we meet/comply with current government regulations	69.2%
We gained credibility in the marketplace	61.5%
Accreditation provides support for innovation in utility management	53.8%
People report that we have more clearly demonstrated our commitment to the environment	53.8%
We have received positive feedback from environmental groups	46.2%
Accreditation has helped with our relationship with local stakeholders (e.g. abutters)	23.1%
Other (please specify)	15.4%
We expect to avoid increases in future government regulations	7.7%

A majority of respondents felt that the results thus far from accreditation are meeting many of the original goals and objectives for undertaking the process. As a new accreditation process, some responses (e.g. help with local relationships and environmental groups) are linked to a broader awareness of ROWSC as a respected process. One respondent also noted that:

- *“Internal management has a better understanding of everything that is involved to have a great vegetation management program.”*

All respondents that were in a position to know indicated that their company planned to market its ROWSC accreditation as a beneficial asset. All respondents indicated they would recommend ROWSC accreditation to other utilities. The top reasons for recommending ROWSC accreditation include:

- *“The process was educational, personally and professionally, and has provided a platform to showcase/demonstrate industry excellence in these critical disciplines audited by industry experts. This accreditation can be used across each company to support programs, budgets, scope of work, and validate the importance of good IVM practices and how they can benefit wildlife and habitats abroad.”*
- *“Helps to gauge how your program is functioning (and) accreditation provides independent review.”*
- *“It validates your program as best in class and identified strengths and weaknesses. The ROWSC is something any vegetation manager should be proud to achieve.”*
- *“Companies should value environmental stewardship. They should have their programs reviewed to get a better understanding of what parts of their program shine and where they should improve.”*
- *“IVM is good for the environment and for the bottom line. We all should be trying to implement it as much as possible.”*

Respondents were asked how ROWSC could provide greater support in order to create greater benefit. Comments include:

- *“Leverage the support from USFWS, national environmental groups, and state fish and wildlife agencies, and state & federal regulators, and politicians. Continue to have published articles and support from these agencies and representatives publicized. Additionally, we can increase awareness and leverage the accreditation with more utilities participating in North America.”*

- *“Benchmarking for other utilities - managers what to know where they stand in how their program meets requirements. Also compliance verification.”*
- *“Have other environmental groups actively support the IVM program.”*
- *“Probably on the marketing side. And I was playing both sides and don't feel I achieved the level I desired for either.”*
- *“Gain more recognition from state and government agencies.”*
- *“Maybe the program needs to become aware to groups like fish and wildlife service, army corp of engineers, EPA, etc. so that this organizations are aware of all that ROWSC utilities do in their vegetation management programs.”*
- *“You guys seem keen on the idea that environmental groups and agencies will see the accreditation and lay off somewhat. This hasn't happened in our area. I don't think the agencies we know about know or care about the accreditation, though we have told them about it. If this is your goal, you should lobby the Feds to respect this accreditation. Perhaps that process is already underway and we haven't seen it yet because we are early adopters.”*

THE BOTTOM LINE

Right-of-Way Stewardship Council (ROWSC) accreditation is a third-party verification system that can accredit successful utility right-of-way managers for the application of advanced IVM principles on their managed corridors. Although only initiated late in 2013, the program has accredited utilities with managed corridors in twelve states and one province of Canada thus far. The purpose of this research was to better understand the key objectives of the early adopting utilities seeking accreditation and input on their experience to date.

Overall, early adopters appear to be very happy with the results of the accreditation process and with the experience itself. It also appears that the primary objectives of utilities seeking accreditation are being addressed. A majority of respondents felt that accreditation helped demonstrate the utility's commitment to the environment, helped them gain credibility in the marketplace, supported innovation in utility management, and resulted in improvement in their IVM process. Increased participation by utilities and greater recognition of ROWSC over time will likely greatly benefit new and existing accredited utilities. There are a number of suggested areas for improvement that have been and are being addressed that can support expansion of the program and the benefits to participants. Although the results of this survey may not be indicative of the industry as a whole, it appears that the early adopters of the ROWSC accreditation process have found it to be a worthwhile exercise and are achieving many of the key benefits they desired.

ACKNOWLEDGEMENTS

John Goodfellow of BioCompliance Consulting, Inc. presented results from the survey discussed in this report to the 11th International Symposium on “Environmental Concerns In Rights-of-Way Management” in Halifax, Nova Scotia in September of 2015. Special thanks go to John and to Phil Charlton of Charlton Associates for their input to this report. A summary of the presentation will be available in the Symposium Proceedings and can be obtained by contacting www.uaa.isa-arbor.com.

REFERENCES

Gardner, R.H. 2007. Best Management Practices: Integrated Vegetation Management. Champaign, IL: International Society of Arboriculture.

APPENDIX

Right-of-Way Survey Questionnaire

Our goal is to better understand your experience with the Right-of-Way Stewardship Council thus far, and to identify those things that you as a representative of an accredited utility have found valuable and things that we might add or adjust to ensure a better experience.

What is your position at the ROW utility? _____

How long have you worked in your area of expertise? (Choose one)

- Less than 5 years
- Between 5 and 10 years
- Between 10 and 15 years
- More than 15 years

Do you have a degree related to vegetation management (e.g. forestry, agriculture, ecology) YES/NO

What was your involvement with ROWSC Audit (Choose all that apply)?

- Application
- Participated in Gap analysis
- Participated in field audit
- Participated in Friday wrap-up meeting with auditors
- Supplied information/documentation for audit
- Final report review and feedback
- Other _____

Overall which of the following reasons do you believe best describes why your organization became ROW accredited (Choose all that apply)?

- Learn more about IVM
- Gain credibility in the marketplace
- Get environmental groups off your back
- Develop a better relationship with local stakeholders (e.g. abutters)
- Support improvement in IVM process
- Meet/comply with current government regulations
- Avoid increases in future government regulations
- Support innovation in utility management
- Demonstrate your commitment to the environment
- Other _____

To what degree did the accreditation process meet your expectations?

Application (choose one)

- Application process was simple and straightforward

- Application process was more complex and took more time than I expected
- Application process could have been more clear
- Application was confusing and unclear

Gap Analysis (choose one)

- Gap analysis was thorough and extremely valuable
- Gap analysis could have been explained better
- Gap analysis was a waste of time

On-site Audit (Choose one)

- On-site audit was thorough
- On-site audit was valuable use of time
- On-site audit process could use improvement
- On-site audit was more thorough than necessary to reflect our performance
- On-site audit was a waste of time

Friday wrap up meeting (Choose one)

- Auditor's discussion on results from on-site inspection was clear and helpful
- Auditor's discussion was mixed and could be clearer
- Auditor's discussion was confusing and unclear as to results

Supplied information documentation (Choose one)

- Requests for documentation were clear
- Requests for documentation required clarification and could be improved
- Requests for documentation were unclear and confusing

Final Report review and feedback (Choose one)

- Final results were clear
- Final results needed clarification
- Final results were unclear and confusing

Did you find the process to be a beneficial learning experience? (Yes/No)

What was your experience like with audit process? (Choose the answer that best fits your experience)

Process was clearly explained up front (choose one)

- I agree completely
- I agree somewhat
- I disagree somewhat
- I disagree completely

Auditors were respectful (choose one)

- I agree completely
- I agree somewhat
- I disagree somewhat
- I disagree completely

Auditors were knowledgeable about IVM subject matter (choose one)

- I agree completely
- I agree somewhat
- I disagree somewhat
- I disagree completely

Auditors seemed knowledgeable about challenges and issues facing utilities (choose one)

- I agree completely
- I agree somewhat
- I disagree somewhat
- I disagree completely

Auditors were good communicators (choose one)

- I agree completely
- I agree somewhat
- I disagree somewhat
- I disagree completely

Audit process was well organized (choose one)

- I agree completely
- I agree somewhat
- I disagree somewhat
- I disagree completely

Roughly how long have you been accredited (choose one)

- Almost 2 years
- About 1 year
- Only a few months

Benefits of ROWSC: Which of the following states reflect your experience to date with accreditation? (Choose all that apply)

- We have learned more about IVM
- We gained credibility in the marketplace
- We have received positive feedback from environmental groups
- Accreditation has helped with our relationship with local stakeholders (e.g. abutters)
- Accreditation has helped gain support for improvement in IVM process
- It is clearer to all that we meet/comply with current government regulations
- We expect to avoid increases in future government regulations
- Accreditation provides support for innovation in utility management
- People report that we have more clearly demonstrated our commitment to the environment
- Other _____

It what areas do you think the ROWSC could provide more support in order to provide greater benefit?

What recommendations would you have for improving the accreditation process?

Gap Analysis _____

Field visits _____

Closing meetings _____

This report was prepared by
DOVETAIL PARTNERS, INC.

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