

Accreditation Standards for Assessing IVM Excellence

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This document establishes the technical requirements for applicants seeking ROW Steward accreditation. It is used in an independent audit of an applicant's integrated vegetation management program. It is intended to aid in identifying excellence.

ROW Steward
Technical
Requirements

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SCORING GUIDELINES

Indicators are scored as either Pass or Fail

- ✓ Verifiers are used to assess the degree of compliance with each Indicator.
- ✓ Verifiers are stated in terms of evidence of compliance.
- ✓ Some Verifiers are “Required,” and are scored on a pass/fail basis. These must be evident in order to pass the Indicator.
- ✓ Required Verifiers are the minimum needed in order to make the Marketing Claim.
- ✓ Other Verifiers are not required and are used to establish a rating for the indicator.
- ✓ To be in Compliance with an Indicator, all Required Verifiers must be found and 50% or more of all verifiers must be confirmed.

Criteria are scored on a qualitative scale ranging from Best Practice, Good Practice, Compliant, to Non-compliant

- ✓ To be in Compliance with a Criterion, all Required Verifiers and all Required Indicators must be found and 50% or more of all Indicators must be confirmed.
- ✓ To be scored a Good Practice, all Indicators must be passed.
- ✓ To be scored a Best Practice, all Verifiers must be passed, and then some.

Principles are scored on a qualitative scale ranging from Best Practice, Good Practice, Compliant, to Non-compliant

- ✓ To be scored as Compliant (minimum acceptable), all Criteria must be passed.
- ✓ To be scored as Good Practice, all Indicators must be passed.
- ✓ To be scored as Best Practice, all Verifiers must be passed.

PRINCIPLE #1: COMPLIANCE WITH LAWS, STANDARDS, AND BEST MANAGEMENT PRACTICES

Laws and regulations are developed to protect natural resources and their associated benefits to society. Integrated Vegetation Management (IVM) practitioners must demonstrate an awareness of and engagement in practices that respect all laws and regulations, and meet or exceed guidelines related to vegetation management on rights-of-way (ROWs) and to safety of vegetation management workers.

CRITERION 1.1: Compliance with Laws

The vegetation management program and vegetation maintenance practices respect all federal, state, and local laws and regulations. Vegetation management plans and maintenance practices incorporate appropriate industry standards, Best Management Practices (BMPs), and other guidance applicable to IVM that exist within the state or other appropriate jurisdiction(s) in which the operations occur.

Compliance requires passing 4 or more indicators including a, b, c & e.:

Indicator 1.1.a: Documentation exists that assures the accrediting body that all federal, state, and local regulations are being met.

Evidence of Compliance includes:

- (REQUIRED) Evidence of intent to comply with all relevant requirements is found in policies and management plans.*
- (REQUIRED) Records confirm personnel are trained with respect to applicable regulations and hold appropriate licenses and certificates.*
- (REQUIRED) No observations of violations are made during audits.*

Indicator Rating: Pass if all required verifiers are confirmed.

Market Claim: ROW Stewards demonstrate due diligence and care in meeting legal requirements.

Indicator 1.1.b: Violations, outstanding complaints, or investigations demonstrate a pattern of control and responsiveness over time (normally the last five years of operations).

Evidence of Compliance includes:

- (REQUIRED) There is no evidence of a pattern of regulatory violations.*
- (REQUIRED) Any violations were addressed and program adjustments were made to prevent recurrence.*
- (REQUIRED) Outstanding complaints have not shown a pattern of increasing frequency or severity.*
- (REQUIRED) Outstanding complaints are being actively managed.*

Indicator Rating: Compliance is achieved when all four Verifiers are confirmed.

Market Claim: ROW Stewards have demonstrated a pattern of control and responsiveness to complaints and avoidance of regulatory violations over time.

Indicator 1.1.c: Personnel are trained, licensed, and/or supervised in accordance with applicable regulations and BMPs.

Evidence of Compliance includes:

- *(REQUIRED) Records are kept by HR/personnel regarding training, licensing, certifications, and applicable employee regulations.*
- *(REQUIRED) Records confirm personnel are trained with respect to applicable regulations and hold appropriate licenses and certificates.*

Indicator Rating: Compliance is achieved when both Verifiers are confirmed.

Market Claim: ROW Stewards assure that qualified professionals are appropriately trained, licensed, and supervised.

Indicator 1.1.d: The organization maintains a safe working environment, including the development and implementation of safety programs and procedures consistent with ANSI Z133.

Evidence of Compliance includes:

- *(REQUIRED) Safety records for employees and vegetation management contractors provide evidence that a safe work environment is maintained.*
- *The ROW Asset Manager ensures safety programs consistent with Z133 have been developed and are required of managers and IVM workers.*
- *Written policies and procedures address tracking employee and contractor safety.*
- *OSHA logs for internal and external field operations are available for review.*

Indicator Rating: Compliance is achieved when two or more verifiers, including the required evidence, are confirmed.

Market Claim: ROW Stewards maintain a safe working environment.

Indicator 1.1.e: A management plan or other document(s) should include a list of the applicable laws, regulations, standards, BMPs, and administrative requirements that typically apply to vegetation maintenance operations.

Evidence of Compliance includes:

- *(REQUIRED) A list citing applicable laws, regulations, standards, and related documents is maintained and available.*
- *(REQUIRED) At a minimum, the industry BMPs for “Integrated Vegetation Management,” “and “Utility Pruning of Trees” are referenced in planning documents.*

- *The newer industry BMPs for “Closed Chain of Custody for Herbicide in UVM Industry,” and “Tree Risk Assessment” are referenced in planning documents.*

Indicator Rating: Compliance is achieved when both required verifiers are confirmed.

Market Claim: ROW Stewards document current applicable regulations, industry standards, and BMPs.

Indicator 1.1f: To facilitate compliance, the ROW Asset Manager ensures that employees and contractors are duly informed about applicable laws and regulations to an appropriate level of detail commensurate with their responsibilities.

Evidence of Compliance includes:

- *(REQUIRED) Employees and IVM workers receive training and other information on applicable regulations.*
- *Employees have access to copies of statutes, vegetation management practice regulations, codes, operational handbooks, and BMP manuals.*
- *Employees have access to documents that describe the structure and function of client organization and the delegation of authority, particularly as it relates to ROW-related natural resources.*

Indicator Rating: Compliance is achieved when two of the verifiers, including the required verifier, are confirmed.

Market Claim: ROW Stewards assure staff are well informed and up-to-date on current laws and regulations.

CRITERION 1.2: Employment Eligibility

Compliance requires passing Indicator 1.2.a:

Indicator 1.2.a: (REQUIRED) Employment practices of ROW Asset Manager and contractors are consistent with all immigration and labor laws.

Evidence of Compliance includes:

- *(REQUIRED) ROW Asset Manager verifies employees’ right to work (e.g., confirmation by Human Resources).*
- *ROW Asset Manager requires that contractor(s) abide by relevant labor laws.*

Indicator Rating: Compliance is achieved when the required Verifier is confirmed.

Market Claim: ROW Stewards have employment practices that are consistent with immigration and labor laws.

PRINCIPLE #2: TENURE AND USE RIGHTS AND RESPONSIBILITIES

Sustainable ROW vegetation management requires that the long-term right of use of the land is clearly defined and documented.

CRITERION 2.1: Right of Use

The ROW Asset Manager has evidence of long-term right of use of the land (e.g., the ROW Asset Manager may own the land in fee, own an easement, or have certain franchise rights, prescription, or license rights to construct and maintain the ROW facility) that is well documented.

Compliance requires passing Indicator 2.1.a:

Indicator 2.1.a: (REQUIRED) The ROW Manager provides clear evidence of long-term rights to use and manage land for the purposes described in the management plan.

Evidence of Compliance includes the existence of:

- ROW easements, deeds, and deed restrictions*
- ROW-related lease agreements*
- Titles and other evidence of fee ownership*
- Contracts, MOUs, or other agreements relevant to ROW vegetation management with other entities internal or external to the organization*
- Documents conveying recreational use rights*
- Customary use rights associated with cultural resources*
- Evidence of consultations with groups that hold tenure and use rights*
- Field evidence that maintenance operations occur within specified ROW boundaries*

Indicator Rating: Compliance is achieved when 4 or more of the Verifiers are confirmed.

Marketing Claim: ROW Stewards have the rights and responsibilities necessary to practice IVM on their ROW.

Indicator 2.1.b: When disputes arise regarding right of use of the land, the ROW Asset Manager initially attempts to resolve them through open communication, negotiation, and/or mediation. If these good-faith efforts fail, then federal, state, and/or local laws may be employed to resolve such disputes.

Evidence of Compliance includes:

- Documentation of issues; timelines, and status of resolved and unresolved disputes; records pertaining to IVM manager's consultations with stakeholders, landowners, and regulators*
- Written policy and procedures for addressing and resolving disputes in a timely manner*

Indicator Rating: Compliance is achieved when either Verifier is confirmed.

Marketing Claim: ROW Stewards aim to resolve disputes in a timely and effective manner.

CRITERION 2.2: Unauthorized Uses

Unauthorized uses of the right-of-way are discouraged and public safety is prioritized.

Compliance requires passing Indicator 2.2.a:

Indicator 2.2.a: (REQUIRED) The ROW Asset Manager supports or implements measures intended to prevent illegal and unauthorized uses of the ROW and protect public safety.

Evidence of Compliance includes:

- Policies and actions to address uses in the ROW*
- Field observation of signage, fencing, etc. to manage access, use, and public safety*
- Clear marking of boundaries, appropriate signage, and gates*
- Policy and procedures document(s) on controlling unauthorized use*
- Record of communications with ROW owners, owners of ROW access lanes, other users, local community members, and other stakeholders regarding authorized and unauthorized uses*

Indicator Rating: Compliance is achieved when 3 or more Verifiers are confirmed.

Marketing Claim: The ROW Stewards program ensures that ROW managers are protecting public safety and helping to reduce conflicts over unauthorized or illegal activities on these lands.

Indicator 2.2.b: When illegal activities are known to occur, the ROW Asset Manager implements actions designed to curtail such activities and correct the situation to the extent possible.

Evidence of Compliance includes:

- ROW Asset Manager maintains documentation of known illegal activities and their actions taken in response.*
- Evidence of adaptive approaches to curtailing or correcting such activities, and measures to prevent illegal and unauthorized activities that may include, but are not limited to reporting suspected illegal or unauthorized activities to the proper authorities.*

Indicator Rating: Compliance is achieved when one or more of the verifiers are confirmed

Marketing Claim: ROW Stewards respond promptly and effectively to reduce or eliminate illegal activities.

CRITERION 2.3: Maintaining Access

The ROW Asset Manager has a program that addresses the need to maintain ROW access. This includes roads and forest roads both on and off the ROW itself, as necessary. In off-ROW forest roads areas, the utility's responsibility is clear, and implemented in a manner consistent with forest road BMPs.

Conformance requires passing Indicator 2.3.a:

Indicator 2.3.a: (REQUIRED) Manager has a program to maintain ROW access, including road maintenance consistent with applicable BMPs.

Evidence of Compliance includes:

- Periodic inspection of off ROW access lanes*
- Road construction and maintenance plans*
- BMPs or performance standards for road construction and maintenance*
- Summary of road construction and maintenance activities*
- Easements and other access agreements or constraints*
- Policies specific to public recreational use and access*

Indicator Rating: Compliance is achieved when 3 or more of the verifiers are confirmed.

Market Claim: ROW Stewards maintain access in a manner consistent with BMPs.

PRINCIPLE #3: COMMUNITY RELATIONS

The IVM program provides for outreach to affected communities and stakeholders.

CRITERION 3.1: Public Education

Stakeholders are apprised of the benefits of ROW Stewardship and IVM.

Conformance requires passing indicator 3.1.a:

Indicator 3.1.a: (REQUIRED) Communities adjacent to ROW vegetation maintenance activities are provided with opportunities for educational support services related to IVM from the Vegetation Manager.

Evidence of Compliance includes:

- Maintenance of a list of educational support services related to IVM*
- Documented policies and procedures that encourage employee participation in community programs*
- Records of monies donated and volunteered hours.*
- Support of and representation in local civic activities, e.g., Earth Day programs, Arbor Day celebrations, right-tree-right-place plantings, participation in Pollinator Week programs, etc.*
- Proactive public education offerings related to IVM practices available to the general public, natural resources agencies, schools, community colleges, and/or other providers of training and education*

Indicator Rating: Compliance is achieved when 2 or more Verifiers are confirmed.

Market Claim: ROW Stewards support communities, providing community service and volunteer time from their employees to benefit community programs. ROW Stewards help their communities understand how and why they do their work.

CRITERION 3.2: Stakeholder Engagement

Stakeholders affected by proposed IVM operations are informed of the primary goals of reliability, assuring access and safety. The potential environmental and aesthetic effects of those operations, and potential stakeholder concerns are considered in management planning and operations.

Conformance requires passing 1 or more Indicators

Indicator 3.2.a: A summary of vegetation maintenance activities is produced annually and made readily available to workers and the general public. This may include a summary of primary elements of the management plan (items in criterion 4.1 and a summary of the results of monitoring

indicators (items in criterion 4.2). The criterion also acknowledges the need to respect the confidentiality of some information.

Evidence of Compliance includes:

- *A written summary of strategic and tactical plans and annual vegetation maintenance activities may appear on ROW Asset Manager website(s) or other publicly available location (e.g., community library). References should be easy to find for an interested party.*

Indicator Rating: Compliance is achieved if the Verifier is confirmed.

Market Claim: ROW Stewards publically disclose their vegetation management activities annually.

Indicator 3.2.b: The ROW Asset Manager evaluates the likely social effects of maintenance activities on local communities and incorporates this understanding into management planning and operations.

Evidence of Compliance includes:

- *(REQUIRED) Potential social impacts, including the following, are considered in planning: archeological sites and sites of cultural, historic, and community significance; public resources, including air, water, and food; aesthetics; community goals for natural resources use such as recreation trails; and other compatible uses.*
- *Written policies, procedures, and practices are used to apprise neighbors and other stakeholders of specific maintenance operations, including notification (direct person-to-person, or indirect via mailers, door hangers, signs).*
- *Written policies, procedures, and practices are used to prevent or minimize conflicts between maintenance activities and community values; this may include advance public notification of specific maintenance operations.*
- *Relevant information is available on a website, which may also support an exchange of information.*
- *There are documented policies and procedures for interaction and cooperation with special interest groups and the general public.*

Indicator Rating: Compliance is achieved when 2 or more Verifiers, including the required Verifier, are confirmed.

Market Claim: ROW Stewards consider social impacts to local communities in their planning and operations.

Indicator 3.2.c: Records are kept of important interactions with stakeholders regarding vegetation maintenance activities, including private or public meeting minutes, correspondence, etc.

Evidence of Compliance includes:

- *ROW Asset Manager has written policies, procedures, and practices used to apprise neighbors and other stakeholders of specific maintenance operations, including notification (direct person-to-person, or indirect via mailers, door hangers, signs);*
- *The results of public opinion surveys relative to vegetation management issues*
- *Documented policies and procedures for interaction and cooperation with special interest groups and the general public*
- *Records of media coverage of vegetation management activities, including dispute resolution efforts*

Indicator Rating: Compliance is achieved when 2 Verifiers are confirmed.

Market Claim: ROW Stewards are responsive to stakeholder concerns.

CRITERION 3.3: Long-Term Commitment to IVM

The ROW Asset Manager, the Vegetation Manager, and the contractor demonstrate a long-term commitment to adhere to the ROW Stewards Program and associated IVM principles and criteria.

Conformance requires passing 1 Indicator:

Indicator 3.3.a: A well-defined and articulated commitment to the ROW Stewards Program and associated IVM principles and criteria exists in the Vegetation Management Plan (VMP; see Criterion 2.1) and environmental policy statement(s).

Evidence of Compliance includes:

- *(REQUIRED) A statement of commitment to ROW Steward Principles and/or IVM is included in the Vegetation Management Plan.*

Indicator Rating: Compliance is achieved when the Verifier is confirmed.

Market Claim: ROW Stewards are committed to the long-term vision and values consistent with the ROW Stewards Program.

Indicator 3.3.b: Where opportunities present themselves, the Right of Way Stewardship Council and associated IVM principles and criteria are explicitly supported in the public arena.

Evidence of Compliance includes:

- *IVM principles and criteria consistent with the ROWSC are publicly supported through activities such as event sponsorship, staff participation in training, financial donations, donations of time or materials, participation in research, serving on volunteer boards or committees, etc. Event sponsorships, donations of any kind and volunteering for the ROWSC itself are not permitted.*

Indicator Rating: Compliance is achieved when the Verifier is confirmed.

Market Claim: ROW Stewards actively and publicly support the Right of Way Stewardship Accreditation Program and IVM principles and criteria.

PRINCIPLE #4: MANAGEMENT PLANNING

Documentation of objectives, philosophy, principles, procedures, and practices are critical to long-term, sustainable management, as embodied by various levels of plans, including resource inventories and maps. Program management plans establish goals and objectives and require accountability for both successes and opportunities for improvement. Improvement in maintenance practices is predicated on learning from both successes and opportunities for improvement.

CRITERION 4.1: Strategic Vegetation Management Plan

The ROW Asset Manager has an established formal written strategic Vegetation Management Program Plan.

Conformance requires passing Indicator 4.1.a:

Indicator 4.1.a (REQUIRED) Supporting documentation is in place that guides IVM program decisions. The Vegetation Management Program Plan at a minimum addresses:

- a. Management policy and objectives
- b. Description of the ROW resources to be managed (e.g., lengths, maintained width, area, infrastructure attributes)
- c. Description of the land use classifications of adjacent lands
- d. Description of the vegetation management tasks and maintenance activities used, based on the ecosystem in question and information gathered through resource inventories
- e. Maps and/or geospatial record system describing the ROW resource base
- f. Environmental limitations and safeguards appropriate to the sites and ecosystems that occur on the transmission system
- g. Plans for conservation of ecosystem services
- h. A means of monitoring work, including feedback mechanisms for revising procedures as appropriate to more effectively achieve objectives
- i. Wildfire management plan (as appropriate)

Evidence of Compliance includes:

- (REQUIRED) A written strategic plan that addresses all of the elements listed in Criterion 4.1.a

Indicator Rating: Compliance is achieved when the Verifier is confirmed.

Market Claim: ROW Stewards have a long-term and comprehensive strategic management plan in place.

CRITERION 4.2: Tactical annual project maintenance plans

The ROW Asset Manager has in place tactical project maintenance plans that are developed annually and take local considerations into account.

Conformance requires passing Indicator 4.2.a:

Indicator 4.2.a: (REQUIRED) Tactical plans provide details of the intended activities planned for each IVM-based vegetation maintenance project (e.g., circuit).

Evidence of Compliance includes:

- Written tactical plans based on site-specific conditions assessments*

Indicator Rating: Compliance is achieved if the Verifier is confirmed.

Market Claim: ROW Stewards have operating plans in place to guide activities.

CRITERION 4.3: Strategic and Tactical Plans Remain Up-to-Date

Strategic management and tactical maintenance plans are periodically revised to incorporate the results of monitoring or new scientific and technical information, as well as to respond to changing environmental, social, regulatory, and economic circumstances.

Conformance requires passing Indicator 4.3.a:

Indicator 4.3.a: (REQUIRED) Program management plans are project-specific and are kept up-to-date. They are reviewed on an ongoing basis and are updated whenever necessary to incorporate the results of monitoring or new scientific and technical information, as well as respond to changing environmental, social, and economic circumstances.

Evidence of Compliance includes:

- (REQUIRED) Management plans are project-specific.*
- (REQUIRED) There is documented evidence that strategic management and tactical maintenance plans are kept up-to-date.*
- Strategic plans receive full review and revision no less than every five years.*

Indicator Rating: Compliance is achieved when both required Verifiers are confirmed.

Market Claim: ROW Stewards regularly update their strategic and tactical plans.

CRITERION 4.4: Competency of IVM Workers

NOTE: The term “IVM workers” refers to both contract and directly employed staff who implement the management plan.

Conformance requires passing one or more Indicators:

Indicator 4.4.a: Workers are well-qualified to implement the management plan.

Evidence of Compliance includes:

- Evidence of appropriate credentials, e.g., pesticide applicator’s license, certified arborist; years in technical and professional work position*
- Training programs and related plans for worker development*
- Educational achievements: Workers do not need degrees in their fields, though education could be evidence of qualifications.*

Indicator Rating: Compliance is achieved when 2 or more of the Verifiers are confirmed

Market Claim: ROW Stewards ensure workers are well-qualified to implement the vegetation management plan.

Indicator 4.4.b: The ROW Asset Manager uses practices that encourage long-term and stable job opportunities for IVM workers.

Evidence of Compliance includes:

- There is an acceptable level of worker turnover.*
- The ROW Asset Manager and Vegetation Managers package work in ways that support stable employment.*
- Jobs include a variety of tasks that require varying levels of skill and knowledge.*
- Opportunities for advancement are available.*
- Training opportunities are in place for employees to improve their skills and knowledge.*

Indicator Rating: Compliance is achieved when 3 or more Verifiers are confirmed.

Market Claim: ROW Stewards use contracting practices that encourage a long-term and stable workforce.

PRINCIPLE #5: UNDERSTANDING PEST AND ECOSYSTEM DYNAMICS

Knowledgeable managers and practitioners are able to identify both incompatible and compatible vegetation and plant communities in the managed system, and understand the effects of various IVM methods based on knowledge of life histories and ecosystem processes. This is foundational knowledge for Vegetation Managers and vegetation management workers.

CRITERION 5.1: Knowledgeable Vegetation Managers

Vegetation Managers are knowledgeable about the managed ecosystem, especially with regard to the basic biology and ecology of plant and animal communities occupying and/or making use of the ROW.

Conformance requires passing Indicator 5.1.a; Best Practice requires passing all verifiers:

Indicator 5.1.a: (REQUIRED) Vegetation Managers are able to demonstrate knowledge about the managed ecosystem by demonstrating an understanding of basic biology and ecology of the plant and animal communities encountered on the ROW.

Evidence of Compliance includes:

- (REQUIRED) Demonstrated plant and animal identification skills
- (REQUIRED) Demonstrated knowledge of the ROW ecosystem
- Evidence of participation in training
- IVM managers and supervisors have appropriate educational background

Indicator Rating: Compliance is achieved when both required Verifiers are confirmed.

Market Claim: ROW Stewards rely on managers that understand basic biology and the ecology of the plant and animal communities that occupy their ROWs.

CRITERION 5.2: Commitment to Research, Development, and Demonstration

Research, development, and demonstration (RD&D) activities such as field trials should be supported (and/or engaged in directly) to provide additional insights, to provide an opportunity for enhancing understanding and knowledge of the ecology of the managed ROW, and to support continuous improvement. Results of IVM efforts are monitored and used to identify opportunities for research and development that may enhance program performance.

Conformance requires passing one or more Indicators:

Indicator 5.2.a: RD&D activities are routinely supported.

Evidence of Compliance includes:

- Listing of research, development, and demonstration projects conducted and/or

supported by the ROW Asset Manager (in-kind or direct monetary support) to develop new skills and knowledge for advancing IVM

- Support of ongoing field research.*
- In-house research and/or demonstration projects*
- Interviews with research collaborators*
- Attendance of IVM management staff at industry technical meetings*

Indicator Rating: Compliance is achieved when 3 or more Verifiers are confirmed.

Market Claim: ROW Stewards are committed to supporting research and demonstration activities that enhance understanding of the ecology of the managed system.

Indicator 5.2.b: Results of RD&D activities are applied to field operations.

Evidence of Compliance includes:

- (REQUIRED) Evidence that research and development results are considered in the process of monitoring results and adapting field operations to improve outcomes.*

Indicator Rating: Compliance is achieved if the Verifier is confirmed.

Market Claim: ROW Stewards use the latest research to continually improve their program.

CRITERION 5.3: Maintaining an Up-to-Date Knowledge Base

Vegetation Managers and IVM workers are provided opportunities to improve their skills and knowledge through education and training.

Conformance requires passing indicator 5.3.a:

Indicator 5.3.a: (REQUIRED) Vegetation Managers and IVM workers are trained to observe and report sites occupied by incompatible plants that exceed action thresholds (height and density). IVM workers are also trained to observe and report significant forest and tree pests and pathogens when they are encountered in the field.

Evidence of Compliance includes:

- Listing of training and education events attended by IVM personnel, and supported by the ROW Asset Manager*
- Vegetation Manager-provided training*

- *Professional society membership (e.g., Utility Arborist Association and the International Society of Arboriculture (ISA)) and certificates (e.g., ISA Certified Arborist, Utility Worker, and Utility Specialist) that requires annual training and education to maintain certifications*
- *In-house training on such topics as laws, regulations, and safety*
- *Pesticide applicators' annual training*
- *Supplier-provided training practices and procedures related to the use of specific tools and materials*

Indicator Rating: Compliance is achieved when 3 or more Verifiers are confirmed.

Market Claim: ROW Stewards are trained to identify and report ecosystem threats.

PRINCIPLE #6: SETTING MANAGEMENT OBJECTIVES AND TOLERANCE LEVELS

IVM, which was developed by adapting principles from Integrated Pest Management (IPM), depends upon basic elements to function as a system. Tolerance (a.k.a. “action threshold”) levels are one of the fundamental elements of IVM. Vegetation management actions are scheduled based on local conditions and maintenance activities occur when tolerances are exceeded and at the optimal time to meet stated objectives. Primary operational objectives of reliability, access, safety, and regulatory compliance are considered in the context of socioeconomics and environmental desires.

CRITERION 6.1: Consideration of Stakeholder and Societal Impacts

Management planning, including the development of management objectives, considers the societal impact of planned activities. The input of stakeholder groups affected by ROW IVM is invited and considered when developing management objectives. (See also Criterion 6.3 and PRINCIPLES #3 and #4).

Conformance requires passing Indicator 6.1.a:

Indicator 6.1.a: (REQUIRED) Management planning included consideration of input from stakeholder groups and considered the potential societal impacts of planned maintenance.

Evidence of Compliance includes:

- (REQUIRED) Engagement procedures and tracking of stakeholder involvement in the vegetation management arena, specifically as related to the development of management objectives as part of the planning process
- (REQUIRED) Specifics on how management objectives have changed with stakeholder input

Indicator Rating: Compliance is achieved when both Verifiers are confirmed.

Market Claim: ROW Stewards consider the societal impact of vegetation management activities.

CRITERION 6.2: Setting Tolerance Levels

Tolerance levels for incompatible species of vegetation (defined in terms of height and density) are used to develop action thresholds for vegetation maintenance treatment options. They may vary by site type and requirements, and are used in planning and scheduling vegetation maintenance tasks intended to control incompatible vegetation.

Conformance requires passing Indicator 6.2.a; Best Practice requires passing all Verifiers:

Indicator 6.2.a: (REQUIRED) Action thresholds have been established based on tolerance levels for incompatible species of vegetation.

Evidence of Compliance includes:

- *(REQUIRED) Documented clearance thresholds to identify problem vegetation, both on- and off-ROW*
- *(REQUIRED) Observed condition of on- and off-ROW vegetation*
- *Lists of compatible and incompatible plants for ROWs based on thresholds*
- *Zones of management with different tolerances—namely a wire or conductor zone, and a border or side zone*

Indicator Rating: Compliance is achieved when 2 or more Verifiers, including both required Verifiers, are confirmed.

Market Claim: ROW Stewards have established tolerance levels for incompatible species that determine when action is taken.

CRITERION 6.3: Addressing Stakeholder Concerns

Significant stakeholder concerns are identified and considered in maintenance policies and plans (for example, management activities are modified in response to concerns, or a rationale is provided for not responding to a concern).

Conformance requires passing Indicator 6.3.a:

Indicator 6.3.a: (REQUIRED) Stakeholder concerns have been incorporated into policies and plans.

Evidence of Compliance includes:

- *Strategies and activities demonstrate solicitation of stakeholder input and willingness to adjust vegetation maintenance practices based on landowner inputs (e.g., choice of herbicide selected, timing of application, or alternative treatment type).*
- *Stakeholder interactions are documented in a formal filing system that includes who was interacted with, the subject of interaction, and the outcome. This information could be used as a performance indicator (see Principle 3 and 10), e.g., to assess the overall quality of stakeholder relations, how concerns are handled, and ability to reduce complaint levels over time.*

Indicator Rating: Compliance is achieved when one or more Verifiers is confirmed.

Market Claim: ROW Stewards have management plans that address voiced concerns of the public where possible.

PRINCIPLE #7: COMPILATION OF A BROAD ARRAY OF TREATMENT TECHNIQUES

IVM does not focus on the use of one treatment; instead, every ROW management situation has a treatment prescribed only after considering all viable treatment options. A complete “toolbox” of treatment options is available and used.

CRITERION 7.1: Variety of Vegetation Maintenance Methods

A wide variety of control methods including mechanical, physical, chemical, cultural, and biological/ecological maintenance practices are available and considered as appropriate for each site.

Conformance requires passing Indicator 7.1.a:

Indicator 7.1.a: (REQUIRED) A wide variety of treatment methods are used for vegetation maintenance.

Evidence of Compliance includes:

- Variety of treatment techniques observed during the field assessment*
- Documented use of different treatment techniques*
- Knowledge of and availability of various IVM methods*

Indicator Rating: Compliance is achieved when two or more Verifiers are confirmed.

Market Claim: ROW Stewards consider a variety of treatment methods as appropriate for each specific site.

CRITERION 7.2: Continuous Improvement of Methods

Treatments are progressively evaluated and added to the vegetation management program, with emphasis on developing selective treatment options and minimizing the impact on compatible vegetative cover types. Where possible, preferred treatments lead, directly or indirectly, to the establishment of a stable community of compatible species that enhances the prevention and biological/ecological control of incompatible species.

Conformance requires passing Indicator 7.2.a:

Indicator 7.2.a: (REQUIRED) Field observation of stable, compatible plant communities without evidence of non-selective practices

Evidence of Compliance includes:

- (REQUIRED) Presence of complex ROW plant communities, including a variety of forbs and shrubs that are an outcome of a selective treatment method approach and indicative of a stable ROW plant community*

- *Policy and procedure documents that commit the utility to predominant use of selective treatment methods*

Indicator Rating: Compliance is achieved when the required Verifier is confirmed.

Market Claim: ROW Stewards emphasize the use of selective treatment options that minimize impacts and support stable plant communities.

CRITERION 7.3: Appropriate Tools

Equipment, tools, and technology are up to date and adequately maintained and supported to ensure proper implementation of the management plan.

Conformance requires passing Indicator 7.3.a; Best Practice requires passing all Verifiers:

Indicator 7.3.a: (REQUIRED) Equipment, tools, and technology appear to be well maintained and current.

Evidence of Compliance includes:

- *Type and condition of equipment, tools, and other technology are current and well maintained.*
- *Records of equipment calibration*
- *Annual expenditure on improved technologies and computers/GIS equipment*

Indicator Rating: Compliance is achieved when 2 or more Verifiers are confirmed.

Market Claim: ROW Stewards have the equipment, methods, tools, and other technology to implement IVM.

PRINCIPLE #8: ACCOUNTING FOR ECONOMIC AND ECOLOGICAL EFFECTS OF TREATMENTS

Cost effectiveness and expected ecological effects over time are used as a basis for selecting IVM treatments. The preferred approach systematically establishes compatible vegetation cover types that assist in reducing populations of incompatible trees on the ROW.

CRITERION 8.1: Economic Viability

The vegetation management program is economically viable, while taking into account the full environmental, social, and operational costs of vegetation management activities. Treatment choices are made with full consideration of direct and indirect costs, including a wide array of positive (ecosystem services) and negative environmental and social externalities, as follows:

- a. Water resources: perennial and ephemeral streams, wetlands, vernal pools, and seeps
- b. Wildlife species and their habitats
- c. Rare, threatened, and endangered plant and animal species, their habitats, and natural communities (according to state/provincial and federal statutory listings)
- d. Invasive plant species
- e. Aesthetic impacts
- f. Cultural resources

Conformance requires passing all Indicators:

Indicator 8.1.a: (REQUIRED) Water resources are protected with adequate planning and appropriate, sensitive maintenance operations.

Evidence of Compliance includes:

- Written policies and procedures for the protection of water resources, including or in addition to state and federal BMPs*
- Policies and practices for operating in or near riparian areas*
- Observed use of riparian buffers, including possibly altered use of herbicides and heavy equipment in buffers compared to the upland portions of a ROW*
- Observed control of ROW erosion and sedimentation into water resources*
- Inventories and maps showing site-specific locations of water resources.*

Indicator Rating: Compliance is achieved when 3 or more Verifiers are confirmed.

Market Claim: ROW Stewards protect water resources.

Indicator 8.1.b: (REQUIRED) Wildlife and their habitats are conserved with adequate planning and appropriate, sensitive maintenance operations. Wildlife use of ROW habitat is considered with adequate planning and appropriate sensitive maintenance operations.

Evidence of Compliance includes:

- Written policies and procedures for the conservation and protection of important wildlife (game and non-game animals, insect pollinators) and plant species*
- Partnerships with wildlife conservation organizations*
- Observed wildlife habitat management*
- Documentation of state and federal regulation compliance efforts to mitigate issues associated with fragmentation and connectivity of habitats caused by the presence of the ROW and the types of maintenance operations used in documented training procedures and participation of appropriate personnel*
- Adoption of Avian Protection Plan (APP) guidelines found in “Suggested Practices for Avian Protection on Power Lines” guidelines, written in partnership through the U.S. Fish and Wildlife Service (USFWS) and the Avian Power Line Interaction Committee (EEI). These guidelines require documentation of vegetation management operations pertaining to wildlife/avian protection.*

Indicator Rating: Compliance is achieved when 3 or more Verifiers are confirmed.

Market Claim: ROW Stewards conserve wildlife habitats.

Indicator 8.1.c: (REQUIRED) Rare, threatened, and endangered species (RT&E) and natural communities are protected with adequate planning and appropriate, sensitive maintenance operations.

Evidence of Compliance includes:

- Written policies and procedures for the protection of RT&E species and their habitats, when the ROW Asset Manager is aware of their presence*
- Partnerships with federal, state, and other conservation organizations*
- Observed protection of RT&E species*
- Lists and other documented information on the identification, biology, and ecology of RT&E species that might occur on the ROW*
- Restoration plans and actions where appropriate/feasible*

Indicator Rating: Compliance is achieved when 2 or more Verifiers are confirmed.

Market Claim: ROW Stewards protect rare, threatened and endangered species.

Indicator 8.1.d: (REQUIRED) Invasive exotic plants are controlled with adequate planning and appropriate maintenance practices to prevent the spread of known invasive exotic plants whenever it is practical to do so.

Evidence of Compliance includes:

- Written policies and procedures for the control of invasive exotic plants in partnerships with federal, state, and other conservation organizations*
- Lists and other documented information on the identification, biology, and ecology of invasive exotic plant species that might occur on ROW*
- The ROW Asset Manager uses native plants when seeding and planting.*

Indicator Rating: Compliance is achieved when 2 or more Verifiers are confirmed.

Market Claim: ROW Stewards work to control the spread of invasive exotic species.

Indicator 8.1.e: (REQUIRED) Aesthetics are considered with adequate planning and appropriate, sensitive maintenance operations. The visual impact of vegetation maintenance activities needs to be considered in planning the work.

Evidence of Compliance includes:

- Written policies and procedures for the management of visual impacts*
- Field observations of visual impacts of IVM operations*
- Examples of aesthetic considerations such as reducing “brown-out” in visually sensitive areas, timing operations to reduce visual impacts, and short term retention of temporary buffers/visual barriers*

Indicator Rating: Compliance is achieved when 2 or more Verifiers are confirmed.

Market Claim: ROW Stewards address the visual impacts of vegetation maintenance activities.

Indicator 8.1.f: (REQUIRED) Cultural resources, including sites of religious importance and historic and community significance, are considered with adequate planning and appropriate, sensitive maintenance operations. Appropriate indicators for Native American and First Nation resources are dependent on good relations with Native American and First Nation tribes and knowledge of which laws apply for a given project.

Evidence of Compliance includes:

- Written policies and procedures for identifying and protecting areas of special cultural significance*
- Field inventories and maps documenting the locations of cultural sites*
- Field observations on the protection of cultural resources*

- *Consultation with local community members and user groups. Appropriate verifiers for Native American and First Nation resources may include respect of MOUs/MOAs and the concerns expressed in the National Historic Preservation Act Section 106 formal consultation process. (Note: All environmental resource issues are cultural issues for Native American and First Nation tribes.)*

Indicator Rating: Compliance is achieved when 2 or more Verifiers are confirmed.

Market Claim: ROW Stewards consider cultural resources in planning and operations.

CRITERION 8.2: Creating Sustainable Compatible Vegetative Cover Types

Vegetation management systems promote the development of stable and sustainable compatible vegetative cover types through the use of selective vegetation maintenance methods. Vegetation maintenance plans include site-specific prescriptions designed to control incompatible vegetation on the ROW while minimizing the use of non-selective techniques and application methods. Non-selective treatments may be used in efforts to reclaim a site that has not been maintained or for cover type conversions. Following conversion, selective treatments are preferred.

Conformance requires passing Indicator 8.2.a:

Indicator 8.2.a: (REQUIRED) The application of selective herbicides for vegetation maintenance and the associated environmental impacts are accounted for in management planning and maintenance operations.

Evidence of Compliance includes:

- *Observed ROW vegetation conditions*
- *Documented account of treatment technique use over time and space*
- *Documented patterns of plant community conditions and herbicide use over time that show stable plant communities are being developed*

Indicator Rating: Compliance is achieved when 2 or more Verifiers are confirmed.

Market Claim: ROW Stewards plan and manage for conversion to stable and sustainable compatible plant communities.

CRITERION 8.3: Holistic Assessment of Effectiveness of Treatments

The effectiveness of vegetation maintenance methods and their associated environmental impacts are specifically and fully accounted for in management planning and maintenance operations. Herbicides are used to eliminate incompatible woody plants on ROWs because most woody plants are not controlled by hand or mechanical cutting. Selective applications of herbicides conserve grasses, herbs, shrubs, and compatible trees, which leads to biological/ecological control. This is a core concept of both IPM and IVM.

Conformance requires passing 2 or more Indicators:

Indicator 8.3.a: Descriptions of the risks and benefits of each vegetation maintenance method and the precautions that workers must employ to use them effectively are included in the Vegetation Management Plan.

Evidence of Compliance includes:

- (REQUIRED) Written statements on the risks and benefits of each maintenance method used and required worker precautions*

Indicator Rating: Compliance is achieved when the required Verifier is confirmed.

Marketing Claim: ROW Stewards seek to minimize or eliminate risks to worker safety.

Indicator 8.3.b: Records are kept to document the frequency of occurrence of incompatible species and measures taken to control them in an effort to assess efficacy of each vegetation maintenance method.

Evidence of Compliance includes:

- (REQUIRED) Records of vegetation condition (e.g., compatible and incompatible plant densities) as related to vegetation maintenance method types and prescriptions*

Indicator Rating: Compliance is achieved when the required Verifier is confirmed.

Marketing Claim: ROW Stewards maintain records for evaluation of treatment efficacy.

Indicator 8.3.c: Vegetation maintenance crews, including mechanized mowers and herbicide application crews, are equipped to minimize adverse site impacts such as contamination with chemicals, including petroleum products.

Evidence of Compliance includes:

- (REQUIRED) Observed state of vegetation maintenance equipment*
- (REQUIRED) Observed state of equipment treatment staging areas (e.g., equipment is not parked in sensitive sites such as riparian areas)*
- (REQUIRED) Spill kit availability*
- Documented spill cleanup procedures*
- Completed inspection forms (Vegetation Manager inspecting in-house or contractor operations);*
- Policies and practices related to use of herbicides*
- Written policies for proper use and disposal of hazardous materials*
- List of herbicides used (including USEPA registration number) on lands indicating ROW condition, management objective, acreage treated, product name, active ingredient, application rate, and quantity used in the last five years*



Indicator Rating: Compliance is achieved when 4 or more Verifiers, including all required Verifiers, are confirmed.

Market Claim: ROW Stewards ensure crews are properly equipped and capable of responding to any adverse event.

PRINCIPLE #9: SITE-SPECIFIC IMPLEMENTATION OF TREATMENTS

ROW corridors are divided into vegetation maintenance units based on their operational, economic, ecological, and socioeconomic significance. Each maintenance unit has a specific prescription. A record of vegetation maintenance performed on each unit is retained and serves as a benchmark for future evaluations of treatment effectiveness.

CRITERION 9.1: Land Management Units

Specific maintenance management units are designated within each ROW to delineate sites that warrant different maintenance treatments (e.g., buffers to protect water resources, conservation areas, and vegetative communities that may cause a change in successional directions or rate).

Conformance requires passing Indicator 9.1.a:

Indicator 9.1.a: (REQUIRED) The ROW is recognized as consisting of multiple management units that may warrant different treatment prescriptions.

Evidence of Compliance includes:

- Demonstrated spatial control of ROWs (e.g., inventory and mapping, GIS system)*
- Matching field conditions to map units*
- Structured numbering system*
- “Plan-and-profile” maps (aerial photos and elevation profile of ROWs, including transmission towers)*
- Documented, formal land unit designations within ROWs as a basis for vegetation management*
- Field use of the “wire zone-border zone” concept*
- Special sites policy, which includes maps showing special sites and lists of special sites.*

Indicator Rating: Compliance is achieved when 4 or more Verifiers are confirmed.

Market Claim: ROW Stewards manage their ROW in a site-specific manner.

CRITERION 9.2: Site-Specific Maintenance Prescriptions

Written prescriptions and operational plans are used to define treatments for each ROW vegetation maintenance unit, and justify treatment choices considering economic, ecological, and socioeconomic factors, as well as administrative opportunities and constraints. Prescriptions include:

- a. ROW maintenance unit designation
- b. Description of current vegetation (compatible and incompatible) and environmental conditions

- c. Desired future vegetative cover types and conditions
- d. Definition of vegetation maintenance treatment method(s) being prescribed
- e. Justifications for treatments prescribed based on tolerance thresholds (also see PRINCIPLE # 6) and economic, ecological, environmental, stakeholder, and administrative considerations
- f. Site-specific maps that detail ROW vegetation maintenance units, and show important cultural and environmental features

Conformance requires passing Indicator 9.2.a:

Indicator 9.2.a: (REQUIRED) Maintenance prescriptions provided to IVM workers are detailed and site-specific.

Evidence of Compliance includes:

- (REQUIRED) Written prescriptions (operational plans) include elements from indicator (a-f above).
- (REQUIRED) Prescriptions are specific to land management units (see Criterion 9.1).

Indicator Rating: Compliance is achieved when both Verifiers are confirmed.

Market Claim: ROW Stewards provide site-specific prescriptions to the IVM workers.

CRITERION 9.3 Maintenance Prescriptions Based on Site Assessment Surveys

Plans, prescriptions, and the decision to treat incompatible vegetation are based on current surveys of vegetation and site conditions.

Conformance requires passing Indicator 9.3.a:

Indicator 9.3.a: (REQUIRED) The ROW Asset Manager has a system for updating site data prior to implementation of maintenance prescriptions.

Evidence of Compliance includes:

- Inventory policy and procedure, including inventory forms
- Documented inventories of ROW vegetation and environmental conditions
- Balanced mix of ground-level and aerial evaluations of vegetation conditions
- Rubrics connecting vegetation condition to possible treatment techniques

Indicator Rating: Compliance is achieved when two or more Verifiers are confirmed.

Market Claim: ROW Stewards base their site-specific prescriptions on current data.

PRINCIPLE #10: ADAPTIVE MANAGEMENT AND MONITORING

Monitoring of managed systems is done to: 1) judge the success of decision making and the effectiveness of management activity; 2) assess system-level function, integrity, and capacity; and 3) be held accountable for these judgments, assessments, and results of management. It is through monitoring, and specifically a quality control and quality assurance program, that adjustments are made to future management so as to better and more sustainably meet organizational goals and objectives – this special effort at continuous improvement is referred to as “adaptive management.”

This ROWS principle relates to the “Monitor Treatment and Quality Assurance” requirement found in ANSI A300 part 7 and ISA IVM BMP.

CRITERION 10.1: Performance Indicators and Monitoring

Results of IVM work should be monitored with reference to judging the degree that management objectives are achieved and how the integrity and function of the ROW system is enhanced or maintained.

Conformance requires passing Indicator 10.1.a:

Indicator 10.1.a: (REQUIRED) Elements that are monitored to assess the success of IVM plan implementation should include the following measures:

- a. Reliable delivery of energy
- b. Condition of the ROW
- c. Composition of and changes in the flora and fauna
- d. Environmental and social impacts of operations
- e. Appropriate record-keeping regarding completion of vegetation management activities, including the use of herbicides
- f. Cost, productivity, effectiveness, and efficiency of vegetation management

Evidence of Compliance includes:

- Data monitored includes measures a-f*
- Document relating monitoring data to management goals and objectives*
- Sample vegetation management treatment closure documents for the past 5 years*
- Monitoring that is well connected to management objectives (objectives are specific, measurable, accountable, relevant, and time-bound – all evaluated through monitoring)*
- Documented results of monitoring in the form of performance indicators*

Indicator rating: Conformance is achieved when 3 or more Verifiers are compatible.

Marketing Claim: ROW Stewards monitor a comprehensive set of data to evaluate and improve planning and operations.

CRITERION 10.2: Revision and Refinement of Management Plans and Operations

Results from monitoring IVM work should be incorporated into any assessment of the need for, and subsequent implementation of necessary revisions and refinement of vegetation management plans and IVM operations

Conformance requires passing Indicator 10.2.a:

Indicator 10.2.a: (REQUIRED) Management plans are periodically revised and management activities adjusted based on monitoring and documenting deviations from the management plan, effects of vegetation maintenance activities and other site disturbances, and social and environmental effects of vegetation maintenance activities.

Evidence of Compliance includes:

- Continuous improvement policies*
- Written policy and procedures for monitoring that include performance indicators*
- Documented changes in management planning based on results from monitoring*
- New or revised post-treatment protocols and policies.*

Indicator Rating: Conformance is achieved when two or more Verifiers are compatible.

Marketing Claim: ROW Stewards improve management planning and operations based on results from monitoring.