

Appendix C
Western Area Power Administration Orders: Right-of-Way
Management Guidance for Vegetation, Encroachments, and Access
Routes

U.S. Department of Energy



ORDER

WAPA O 430.1A

DATE: 03-18-08

SUBJECT: RIGHT-OF-WAY MANAGEMENT GUIDANCE FOR VEGETATION,
ENCROACHMENTS, AND ACCESS ROUTES

1. PURPOSE. This Order delegates and clarifies responsibilities and establishes Right of Way (ROW) guidance and organizational support for the safe and reliable operation of the power system owned and/or maintained by the Western Area Power Administration (Western).
2. CANCELLATION. This Order cancels WAPA Order 430.1, Right-of-Way Management Guidance for Danger Trees, Encroachments, and Access Routes, dated 11-21-01.
3. SCOPE. The provisions of this Order apply to all organizational elements of Western.
4. DEFINITIONS.
 - a. Danger Trees. Trees located within or adjacent to the easement or permit area that present a hazard to employees, the public, or power system facilities. Characteristics used in identifying a danger tree include but are not limited to the following:
 - encroachment within the safe distance to the conductor as a result of the tree bending, growing, swinging, or falling toward the conductor;
 - deterioration or physical damage to the root system, trunk, stem or limbs and/or the direction and lean of the tree;
 - vertical or horizontal conductor movement and increased sag as a result of thermal, wind, and ice loading;
 - exceeding facility design specifications;
 - fire risk;
 - other threats to the electric power system facilities or worker/public safety.

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INITIATED BY:
CSO Natural
Resources Office

- b. Emergency Situations. An emergency situation occurs when a danger tree or encroachment poses an immediate danger to Western's facility as well as the welfare of the public and Western's maintenance personnel. For these situations it is not necessary to notify a landowner or government entity prior to removing the danger tree or encroachment.
 - c. Encroachments. Encroachments are conditions or developments that occur within the transmission line ROW that impair Western's rights to operate and maintain the facilities or present a hazard to the safe operation of the power system. Examples of potential encroachments are houses, businesses, signs, light structures, outbuildings, landfills, roadways, vegetation, etc.
 - d. Maintenance Manager. The individual located in the Regional or Field Office who is accountable for managing maintenance and/or operations functions. For example, in the Rocky Mountain Region this would be the Maintenance Manager; in the Bismarck Office this would be the North Dakota Maintenance Manager.
 - e. Right-Of-Way (ROW). Western acquires easements across State and private lands, is issued grants, permits or easements across Federal lands, and assumed the Bureau of Reclamation (Reclamation) responsibilities set forth in various agreements historically negotiated between Reclamation and other Federal agencies, such as the Bureau of Land Management, Bureau of Indian Affairs, National Park Service and U.S. Forest Service. As applied to a specific situation, ROW refers to rights acquired by Western as set forth in the applicable granting document.
 - f. Western Authorized Representative. The Western field representative in the Region who has the authority to take a maintenance action (this will be the Regional Manager or his designee).
5. POLICY. Maintenance Managers have the authority and responsibility for implementing and overseeing the proper maintenance of Western's ROWs. This includes all activities within ROWs that ensure the safe and reliable operation of the power system, as well as protection of the environment, the public, and Western's maintenance personnel. These activities include routine maintenance of access routes; vegetation management; identification of potential encroachments; and development of positive landowner relations. Regional Realty Officers, Environmental Managers, and Safety Managers, and, when necessary, the Corporate Services Office (CSO) Office of General Counsel (OGC) and CSO Natural Resources Office (NRO), will provide support to Maintenance Managers.
6. BACKGROUND. Western acquires easements across State and private lands, is issued grants, permits or easements across Federal lands, and assumed the Bureau of Reclamation (Reclamation) responsibilities set forth in various agreements

historically negotiated between Reclamation and other Federal agencies, such as the Bureau of Land Management, Bureau of Indian Affairs, National Park Service and U.S. Forest Service. Western's rights to maintain vegetation, to challenge a use that is considered to impair or encroach upon Western's rights, and to access the power facilities are dictated by the language contained in these agreements.

- a. State and Private Land. Generally, the easement agreement provides for the perpetual right to access, construct, operate, and maintain the power system facility in a manner that ensures safe operation and system integrity.
 - (1) Vegetation Management and Control. Responsibility for these functions is often Western's and may, based upon the terms of the easement contract, or other agreements, require compensation to the landowner for damages to crops or trees. Contracts are generally reviewed by the Regional Realty Officers to determine the extent of Western's right to maintain or clear vegetation.
 - (2) Landowner's Use of the Easement Area. Easement provisions specify Western's rights to operate and maintain the power facilities. Where landowners add uses or developments in the easement area, the Maintenance Managers must determine, through the review of the easement contract, whether the use or development must cease, or be removed or mitigated some other way to protect Western's rights.
 - (3) General Access Rights Language. Language defining Western's access rights is usually provided in the easement agreement. To ensure that open and safe access is available across private land, the easement agreement must be thoroughly researched and verified to identify access routes and any restrictions that regulate their use.
- b. Federal Land. ROW agreements are sometimes limited to a specific term and specify stipulations or conditions associated with vegetation management, compatible land uses, and access rights.
 - (1) Vegetation Management and Control. Responsibility for these functions is Western's, but is affected by land and resource plans, resource management plans, or other planning instruments approved by the land management agency, and these dictate tree removal or trimming criteria within and adjacent to the ROW, as well as other uses allowed on the same lands traversed by the power facility.
 - (2) ROW Use and Development. Uses or developments within Western's ROWs are authorized by the government entity managing the land and are usually reviewed and concurred upon by a Western authorized representative prior to the use being authorized.

- (3) Access Routes. Access routes can be authorized in the same ROW agreement or in a separate permit or agreement. These authorizations may contain specific terms and conditions that restrict the season of use and/or construction or road improvement activities allowed on the authorized access routes.

7. RESPONSIBILITIES.

- a. Regional Managers. Provide oversight of the ROW maintenance program in their respective Regions.
 - b. Regional Maintenance Managers. Develop long-term strategies and programs, in coordination with Regional safety, environment, and realty personnel, to resolve vegetation, encroachment, and access problems in and along Western's transmission line ROWs.
 - c. Regional Safety Managers. Support the Maintenance Managers in providing guidance for resolution of safety concerns as well as ensuring the Regional ROW program meets Western's safety goals and objectives.
 - d. Regional Environmental Managers. Support the Maintenance Managers in ensuring that maintenance activities employed to resolve vegetation, encroachment, and access problems comply with environmental laws and regulations.
 - e. Regional Realty Officers. Support the Maintenance Managers in the identification and resolution of vegetation, encroachment, public relations, and access problems. The Regional Realty Officers also provide coordination in working with the landowners and have the responsibility of identifying land rights, including vegetation control rights.
 - f. Office of General Counsel (OGC). Provides legal advice, counsel, and representation.
 - g. CSO Natural Resources Office (NRO). Provides advice and support to the Regional Maintenance Managers, Realty Officers and Environmental Managers in order to resolve vegetation, encroachment, and access problems.
8. GENERAL GUIDANCE. As a component of each Regional Office's routine maintenance activities, Maintenance Managers will develop a ROW management program, including performance measures and will coordinate its development and implementation with Regional safety, environment, and realty personnel as well as CSO NRO and OGC, when necessary. This program will include a long-term strategy to inventory Western's rights as they pertain to vegetation management,

use restrictions, encroachments and access. The program will identify potential problem areas or situations to be resolved and the resolution process.

- a. Vegetation Management. It shall be the responsibility of the Regional Realty Officers to inventory the vegetation management rights, including any compensation rights to landowners, for a power facility on an as needed basis. The following guidance is provided for vegetation management practices within and adjacent to the ROW. Prior to vegetation management activities, an effort will be made to notify landowners. Such notifications or attempts to notify landowners shall be documented.

- (1) Easements on State and Private Lands.

- (a) Where provided in the easement agreement, Maintenance Managers shall manage the vegetation within and adjacent to the easement in accordance with WAPA Order 450.3A (latest version).
- (b) Where the easement agreement does not provide for the rights to manage vegetation in or adjacent to the easement area, or if the rights are limited, the following shall apply in accordance with each Region's Vegetation Management Plan:
 - 1) **Emergency Situations.** If the vegetation is creating an emergency situation, the Maintenance Managers have the discretion to address emergency situations, including removing danger trees.
 - 2) **Non-Emergencies.** If vegetation is not causing an emergency situation, Western will work with the landowner to conduct the required vegetation management activity. If necessary, Western will expand its land rights to manage the vegetation within or adjacent to the easement.
- (c) CSO OGC and NRO will provide assistance and consultation to support the Maintenance Managers and support the future expansion of easement rights to include all required vegetation management activities.

- (2) ROW Agreements on Federal Lands.

- (a) Where provided in the ROW agreement, the Maintenance Managers shall manage vegetation within the ROW.
- (b) Where land use plans or terms contained in the agreement with the Federal land management agency and Western dictate trees may only be trimmed (sides or on top) within the ROW, the NRO will assist the

Maintenance Manager and Realty Officer in obtaining modifications to the ROW agreement to allow for all required vegetation management activities.

- (c) Where the ROW agreement does not provide for the removal of trees in or adjacent to the ROW, the Maintenance Managers have discretion in removing danger trees without notification to the Federal land managers. Western will contact the Federal agency following removal of danger trees. The CSO NRO will provide assistance to the Maintenance Managers to expand ROW rights to allow more extensive vegetation management activities consistent with current industry standards and requirements as provided for in Western's Transmission Vegetation Management Program.
- (3) Tree Removal Criteria. Criteria that will be used to determine the need for tree removal activities include either of the following two conditions:
- (a) Any tree classified as being a "Danger Tree" as defined in 4a above.
 - (b) Requirements established in WAPA Order 450.3A (latest version).
- (4) Vegetation Management Clearances. The following table provides the minimum clearance distances (lateral and vertical) to be achieved at the time of transmission vegetation management work as required by the North American Electric Reliability Council (NERC) Standard FAC-003-1 ("Clearance 1" values). However, it is Western's policy to proactively manage to a desired condition of much lower growth and low vegetation density. The desired condition considers the reduction of fuel loading to reduce the risk and intensity of wildfire on and adjacent to the ROW. It is also Western's policy to encourage the land management agencies to manage lands adjacent to the ROWs in a manner which further reduces vegetation and wildfire hazards that are a threat to the safe and reliable operation of the power facility.¹

¹ The minimum clearance is based on the OSHA 29 CFR § 1910.333 minimum approach distance for non-electrical workers (rounded up to the nearest foot) plus 5 feet to account for conductor and tree movement due to wind and ice loading or increased conductor sag as a result of thermal loading. In addition, another 5 feet is added to allow for an average tree growth of 12 inches per year and a re-treatment interval of not less than 5 years. In situations where more rapid tree growth can be expected because of species or better than average growing conditions, a distance (either horizontal or vertical) greater than 5 feet is required.

TRANSMISSION LINE ROW MINIMUM CLEARANCE¹ REQUIREMENTS FOR VEGETATION AFTER TREATMENT	
Line Voltage	Minimum Clearance ¹ Between Conductor and Vegetation
69 kV	20 feet
115 kV	21 feet
138 kV	22 feet
161 kV	22 feet
230 kV	23 feet
345 kV	26 feet
500 kV	29 feet

- (5) Customer Focus. It is Western's policy that landowners are our customers. Maintenance Managers have the responsibility to ensure early notification to the private landowner or government entity prior to the vegetation management or encroachment removal activities within or adjacent to the ROW. Where emergency removal of danger trees is necessary within or adjacent to the ROW and prior notice is not possible, the Maintenance Manager is responsible for initiating or coordinating notification after the fact. The Regional Realty Officers will provide support in mitigating such actions.

b. Encroachments.

- (1) State and private land. The Maintenance Managers shall be accountable for identifying potential encroachments. The Regional Realty Officer is accountable for verification and resolution. Where encroachments are found to be compatible with Western's rights, a license will be issued by the Western authorized representative. Where the encroachment is found to be incompatible, the Realty Officer shall coordinate the removal or mitigate the use or development. The Regional Realty Officer may consult or ask assistance from the NRO and OGC in those cases involving complex legal issues and landowner investments.
- (2) Federal land. For situations where uses or developments are located within ROWs on Federal lands that appear to impair Western's rights to operate and maintain its facilities, the Regional Realty Officer will be responsible for contacting the government entity and resolving the problem. If necessary, the Regional Realty Officer may consult with or ask assistance from the NRO and OGC.

c. Access Routes.

- (1) To ensure safe, reliable access to Western's facilities for maintenance purposes, it shall be the responsibility of the Maintenance Managers to

identify and locate access routes in support of facility maintenance programs across private, State and Federal lands, where necessary. Maintenance Managers have the discretion to reopen blocked access routes where Western's right of access is being impeded. Regional Realty Officers will be responsible to respond to the Maintenance Managers when requested to coordinate the reopening of such routes with the landowners and/or land management agency and will be supported by the NRO and OGC, when necessary.

- (2) Where new access is needed across State or private land, the Regional Realty Officer must consult with the Environmental Manager and the NRO to develop an acquisition plan to obtain access easements. Where access is needed across Federal lands, the Regional Realty Officer shall perform the same coordination as for State or private lands except that Western will obtain an amendment to its ROW authorization. In either case, Western will strive to obtain access routes with the fewest restrictions as to season of use or impacts to resources.

9. REFERENCES.

- a. WAPA 450.1B, Environmental Considerations in the Planning, Design, Construction, and Maintenance of Power Facilities and Activities, latest version.
- b. WAPA Engineering Manual (EM) 6460.3, Property Damage Investigation Appraisal and Settlement, latest version.
- c. WAPA EM 6404, Construction Management Practices and Procedures, Chapter V, Real Estate, of 02-20-90, latest version.
- d. Transmission Line Right-of-Way Handbook, latest version.
- e. WAPA Order 450.3A, Transmission Vegetation Management Program, latest version.
- f. www.arborday.org/treeguide
- g. Code of Federal Regulations (CFR) 29 CFR § 1910.333.
- h. Alcoa Conductor Accessories Sag 10, version 3.0 Software.
- i. National Electric Safety Code (NESC).

10. CONTACT. Questions concerning this Order should be addressed to the CSO NRO at (720) 962-7272.

A handwritten signature in black ink, appearing to read "T. J. Meeks", with a stylized flourish at the end.

Timothy J. Meeks
Administrator

U.S. Department of Energy



ORDER

WAPA O 450.3A

DATE: 03-13-08

Page Change: 02-23-09

SUBJECT: TRANSMISSION VEGETATION MANAGEMENT PROGRAM

1. **OBJECTIVES.** The objective of this Order is to define the Transmission Vegetation Management Program (TVMP) for the Western Area Power Administration (Western); to ensure the safe and reliable operation of the electrical transmission system in an environmentally sensitive, cost effective, and socially responsible manner.
2. **CANCELLATION.** This Order cancels WAPA Order 450.3, Transmission Vegetation Management Program, dated 05-10-07.
3. **BACKGROUND.** This Order is in accordance with the requirements defined in the North American Electric Reliability Council (NERC) Standard FAC-003-1.
4. **APPLICABILITY.**
 - a. **Western Program Areas.** This Order applies to all Western programs involved with vegetation management beneath and adjacent to transmission lines and associated facilities that make up the transmission system maintained by Western. At a minimum, this standard shall apply to all 200 kV and above transmission lines and to any lower voltage lines designated by the Regional Reliability Organization (RRO) as critical to the reliability of each Region's electric system.
 - b. **Contractors.** Contractors in support of Western's TVMP are responsible for ensuring full compliance with the requirements set forth in applicable Contracts and are also responsible for any subcontractor's compliance.
5. **POLICY.** It is Western's policy to identify and perform maintenance management activities in support of obtaining a desired condition for transmission line rights-of-way (ROW) and associated facilities. Western will apply the concept of Integrated Vegetation Management (IVM) as a practice for creating and maintaining a desired condition. Western's IVM Guidance Manual (see paragraph 13 of this Order) provides guidance for these practices.

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6. RESPONSIBILITIES.

- a. Chief Operating Officer. Ensures full compliance with NERC and RRO reliability standards
- b. CSO Engineering. Provides oversight in the development of Engineering and Maintenance policies and standards.
- c. CSO Natural Resources Office. Provides support to the Regions relative to environment and lands programs. Serves as a point of contact with DOE Headquarters offices for the purpose of policy development, reporting, regulatory review, Native American issues, and other requirements.
- d. Office of General Counsel. Provides legal advice, counsel, and representation.
- e. Regional Managers. Provide oversight of the maintenance and safety policy and programs in their respective regions.
- f. Regional Maintenance Managers. Develop long-term strategies and programs, in coordination with Regional safety, environmental, and realty personnel, to address vegetation issues in and along all Western maintained transmission lines and associated facilities.
- g. Regional Environmental Managers. Support the Maintenance Managers in ensuring that the maintenance activities employed to manage Western's TVMP are in compliance with environmental laws and regulations.
- h. Regional Safety Managers. Support the Maintenance Managers in advising supervisors and foremen on the applications of the Power System Safety Manual and applicable safety and health regulations.
- i. Regional Reality Officers. Support the Maintenance Managers in the resolution of vegetation management problems by working with landowners in identifying and enforcing vegetation control rights

7. DESIRED CONDITION. Western's desired condition beneath and adjacent to its transmission line facilities is characterized by stable, low growth plant communities free from noxious or invasive plants. These communities will typically be comprised of herbaceous plants and low growing shrubs which ideally are native to the local area. Vegetation on the bordering areas of transmission line easements/ROWs can be managed so that increased tree height is allowed in relation to an increasing distance from the transmission line. Accumulations of vegetation debris from intensive or repetitive vegetation treatments may require mitigation to reduce risks from wildfire and enhance the fire survivability of the transmission facility. The

density of the remaining vegetation will also be a consideration in assessing overall fire risk. Adequate access routes are required and must be maintained to provide for efficient, cost effective vegetation treatment activities.

- a. Areas of Concern. The desired condition will allow Western to manage vegetation such that it does not threaten power system safety or reliability. Vegetation management activities will be undertaken to the maximum extent that is reasonable and practical within three main areas of concern:

- (1) Vegetation within the defined boundary of a facility (ROW, fence line, etc.);
- (2) Vegetation adjacent to the facility; and
- (3) Prevention of wildfire on and off the facility.

- b. Guidance. On-the-ground conditions can be extremely variable and specific for each transmission facility or unique section of a facility. In general, it is Western's practice to perform vegetation management activities in support of achieving the desired condition of low, stable growth plant communities. However, reasonable accommodations can be made in consideration of other critical resources or management issues. The principal purpose of the transmission facility is for the safe and reliable operation of the power system and all other resource and management issues are considered secondary. When constraints do not allow for the immediate removal of trees and other taller vegetation, the desired condition should identify the maximum tree height and density thresholds allowed. American National Standards, ANSI A300, part 7, *Tree, Shrub, and Other Woody Plant Maintenance - Standard Practices (Integrated Vegetation Management, a. Electrical Utility Rights-of-way)*, may be used for additional guidance and reference.

- c. Objective. Western's intent is to secure and maintain a manageable landscape that minimizes vegetative threats to transmission system reliability and safety, and ultimately does not require frequent re-treatments. Achieving a desired condition is a process that may take several iterations over an extended period of time. However, once defined, the desired condition will serve as the guide for future vegetation management decisions. All subsequent vegetation treatment activities should consistently move toward achieving and maintaining the desired condition. Once achieved, the desired condition will be proactively maintained by occasional re-treatments.

8. PRACTICES. Western's TVMP practices are guided by internal manuals, handbooks, guidelines, orders, and standards outlining objectives, practices, approved procedures, and work specifications set forth in paragraph 14. These various formal documents are kept current through internal working committees from the functional organizations where the document resides.

9. REQUIREMENTS.

- a. Maintenance Schedule. Aerial and ground patrol schedules for each transmission facility are developed and maintained by each regional maintenance organization. Maintenance schedules are based on requirements and procedures set forth in Western's maintenance program. Other conditions where additional inspections may be necessary are those where catastrophic results could occur. Aerial or ground patrols may be conducted after an outage occurrence.
- b. Vegetation clearance levels for each transmission line. Clearance 1 distances required by NERC FAC-003-1 are provided in Western Order 430.1A, Right-of-Way Management Guidance for Vegetation, Encroachments, and Access Routes. Western's desired condition is a condition of low growth plant communities; these values represent the maximum but not preferred vegetation height thresholds allowed. NERC FAC-003-1, Clearance 2 distances are provided in Western's Power System Safety Manual (PSSM), Table A-1.
- c. Qualifications and Training. Personnel involved in the design, implementation, and execution of the TVMP shall be qualified and trained as provided in individual position descriptions and contract language. The Western Transmission Vegetation Management Committee was established to design and provide oversight of the TVMP, and committee membership qualifications are outlined in the charter. Western staff involved in the preparation and implementation of annual plans discussed in paragraph 9 of this Order shall be included. PSSM Chapter 11 also addresses field crew training requirements for trimming and felling trees and brush near power lines. Contractors hired by Western must be fully qualified with respect to all certifications, licenses, training, and other skills and requirements as presented in the most recent version of Western's statement of work.
- d. Mitigation Measures. WAPA Order 430.1A and the Regional Transmission Vegetation Management Program Statements provide mitigation measures and processes to achieve sufficient clearances for the protection of the transmission systems in identified locations where Western is restricted from attaining the clearances specified in paragraph 9b.
- e. Inspections and Emergency Procedures. Transmission line maintenance personnel are responsible for inspection of Western's transmission facilities from vehicles, on foot or from aircraft. Routine inspections of vegetation are made during scheduled ground and aerial line patrols. Any encroachments, including vegetation, are documented and forwarded to the proper functional organization for assessment and resolution. Typical patrol reports will describe the

encroachment, clearance between the conductor and encroachment, and other pertinent information, such as when the reading was taken, and why there is a problem. If an imminent threat of a transmission line outage is identified and requires action (such as switching the line out of service), the threat shall immediately be reported verbally for resolution.

Western's craft personnel and IVM contractors are responsible for complying with prescribed clearance and safety rules and regulations, are qualified to recognize safety hazards and unsafe conditions, and are required to initiate action to alleviate or eliminate the hazards. Duties include the immediate reporting of safety hazards and unsafe conditions and initiating action to correct the safety hazard. Line crew members are required to report potential power system troubles to their Foreman. While on patrol, they are qualified to make on-the-spot decisions as to the urgency for immediate communication of vegetation conditions that present an imminent threat of a transmission system outage so that action may be taken.

10. ANNUAL PLANS FOR VEGETATION MANAGEMENT WORK. Each Regional Maintenance Organization shall create and implement an annual plan for vegetation management activities to ensure the reliability of the power system. The plan shall describe the methods used, such as manual clearing, mechanical clearing, herbicide treatment, or other actions. The plan should be flexible enough to adjust to changing conditions, taking into consideration anticipated growth of vegetation and all other environmental factors that may have an impact on the reliability of the transmission systems. Adjustments to the plan shall be documented as they occur. The plan should take into consideration the time required to obtain permissions or authorizations from landowners or regulatory authorities and also to conduct the appropriate environmental review. Each maintenance organization shall have systems and procedures for documenting and tracking the planned vegetation management work and ensuring that the vegetation management work is completed according to work specifications

11. REPORTING REQUIREMENTS. Each Region will report quarterly to their RRO, and upon request, will also report sustained transmission line outages determined to have been caused by vegetation. If there are no sustained transmission line outages for the quarter, the report shall be submitted indicating full compliance. Multiple sustained outages on an individual line, if caused by the same vegetation, shall be reported as one outage regardless of the actual number of outages within a 24-hour period.

- a. Western is not required to report to the RRO, or the RRO's designee, certain sustained transmission line outages caused by vegetation. These outages are: (1) vegetation-related outages that result from vegetation falling into lines from outside the ROW that result from natural disasters (examples of disasters that

could create non-reportable outages include, but are not limited to, earthquakes, fires, tornados, hurricanes, landslides, wind shear, major storms as defined either by Western or an applicable regulatory body, ice storms, and floods); and (2) vegetation-related outages due to human or animal activity (examples of human or animal activity that could cause a non-reportable outage include, but are not limited to, logging, animal severing tree, vehicle contact with tree, arboricultural, horticultural, agricultural activities, or removal or digging of vegetation).

- b. The outage information provided by Western to the RRO, or the RRO's designee, shall include at a minimum: the name of the circuit(s) experiencing the outage, the date, time and duration of the outage; a description of the cause of the outage; other pertinent comments; and any countermeasures taken by Western.
- c. An outage shall be categorized as one of the following:
 - Category 1 — Grow-ins: Outages caused by vegetation growing into lines from vegetation inside and/or outside of the ROW;
 - Category 2 — Fall-ins: Outages caused by vegetation falling into lines from inside the ROW;
 - Category 3 — Fall-ins: Outages caused by vegetation falling into lines from outside the ROW.

12. DOCUMENTATION. All documentation required in this section shall be retained for a minimum period of 5 years.

- a. Each Region shall document that they have performed the vegetation inspections identified in 8a above. This information shall be retained in Western's maintenance management databases (Maximo, TAMIS, SIMS, TLDB, etc.).
- b. Western shall retain documentation that describes the clearances identified in 8b above. This information shall be retained in Western's PSSM, Table A1 (Clearance 2), and WAPA Order 430.1A (Clearance 1).
- c. Western shall retain documentation that describes the qualifications of personnel directly involved in the design, implementation, and execution of the TVMP as required in 8c. This information shall be retained in the employee's position descriptions and training records maintained by Western and the Corporate Human Resource Information System (CHRIS).
- d. Each Region shall document any areas identified as not meeting this Order for vegetation management and any mitigating measures taken to address these deficiencies as identified in 8d. This information shall be retained by each

Regional Lands Office and attached to the appropriate authorizing document (easement, permit, etc.). It should also be noted in the geographic information system (GIS) database so that it is available to the maintenance organization responsible for planning and completing vegetation management activities.

- e. Western shall maintain a documented process for the immediate communication of imminent threats by vegetation as required in 8e above. This information shall be retained in the employee's position description and the Standard Operating Procedures.
- f. Each Region shall document that the annual work plan identified in paragraph 9 has been implemented. This will be documented in the appropriate procurement records (for contract work) and in Western's maintenance management databases (Maximo, TAMIS, SIMS, TLDB, etc.).
- g. Each Region shall retain copies of all quarterly reports and additional outage reports submitted to the RRO, or the RRO's designee, as identified in paragraph 10.
- h. Each Region shall develop a Transmission Vegetation Management Program statement which identifies Regional specific practices.

13. CERTIFICATION. Each Region shall demonstrate compliance through self-certification submitted to the compliance monitor (RRO or RRO's designee) in accordance with the requirements of NERC FAC-003-1.

14. REFERENCES.

- a. North American Electric Reliability Council (NERC) Reliability Standard FAC-003-1.
- b. Western Area Power Administration Integrated Vegetation Management Guidance Manual, latest version.
- c. American National Standards, ANSI A300 (part 7)-2006 IVM for Tree Care Operations – Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices (Integrated Vegetation Management, a. Electrical Utility Rights-of-Way).
- d. Chapter 13, Power System Maintenance Manual (PSMM), latest revision.
- e. WAPA Order 430.1A, Right-of-Way Management Guidance for Vegetation, Encroachments, and Access Routes, latest revision.

- f. Chapter 11, PSMM, Trimming and Felling of Trees and Brush Near Power Lines, latest revision.
 - g. Chapter 1, Power System Operations Manual (PSOM), Power System Switching Procedure, latest revision.
 - h. Chapter 4, PSOM, Power System Operating Guidelines, latest revision.
 - i. Power System Safety Manual (PSSM), latest revision.
 - j. Regional Transmission Vegetation Management Program Statements.
 - k. ANSI A300, (Part 1) – 2001 Pruning for Tree Care Operations – Tree, Shrub, and Other Woody Plant Maintenance.
 - l. ANSI Z133.1 – 2000, for Arboricultural Operations – Pruning, Repairing, Maintaining, and Removing Trees, and Cutting Brush – Safety Requirements.
 - m. Western Transmission Vegetation Management Committee (TVMC) Charter.
15. CONTACT. Questions concerning this Order should be addressed to the CSO Engineering Office at (720) 962-7296.



Timothy J. Meeks
Administrator

U.S. Department of Energy



PAGE CHANGE

WAPA O 450.3A

DATE: 03-13-08
Change 1: 02-23-09

SUBJECT: TRANSMISSION VEGETATION MANAGEMENT PROGRAM

1. PURPOSE. To transmit revised pages 3 and 4 to WAPA O 450.3A, Transmission Vegetation Management Program, dated 03-13-08.
2. EXPLANATION OF CHANGES. To correct the references to the paragraph numbers identified in paragraph 8 and paragraph 9d.
3. LOCATION OF CHANGES.

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4	9d

After filing the attached pages, this transmittal may be discarded.



Timothy J. Meeks
Administrator