

## Vegetation Management Second Patrol Procedure

### SUMMARY

This utility procedure provides instructions for performing second patrol inspections (commonly referred to as patrol) and tree trimming within the following areas:

- State responsibility areas (SRAs)
- Wildland urban interface (WUI) areas
- Fire hazard severity zones (FHSZs)
- Designated high fire-threat districts (HFTDs)

The intention is to reduce the risk to the electric system by inspecting vegetation conditions on circuits within these areas approximately six months after the routine annual patrol.

California Public Utilities Commission (CPUC) decision R.15-05-006 adopted regulations to enhance fire safety in designated HFTDs across California. The HFTDs are divided into three areas: Zone 1 (tree mortality), Tier 2 (elevated fire risk), and Tier 3 (extreme fire risk). Second patrols include catastrophic event memorandum account (CEMA) recovery efforts, and the term “second patrol” is preferred and used in lieu of CEMA in this document.

The scope of work addresses the following:

- Dead, dying, and declining trees, or dead portions of trees including dead overhangs, that can contact PG&E facilities if they fail
- Green trees observed within the minimum distance requirement (MDR) or with the potential to encroach the MDR before the next patrol cycle
- Green hazard trees with the potential to impact the electric facilities
- Trees causing strain or abrasion on secondary lines
- Abnormal field conditions

Level of Use: Informational Use

### TARGET AUDIENCE

PG&E vegetation management (VM) personnel

VM second patrol contractors, including pre-inspector (PI), tree crew general foreman (GF), quality control (QC), and quality assurance (QA)

### SAFETY

NA

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### BEFORE YOU START

1. REVIEW the [Definitions Section](#) in this document.
2. ESTABLISH an understanding of the following VM utility procedures:
  - When inspecting transmission with underbuild, [TD-7103P-01, "Transmission Non-Orchard Routine Patrol Procedure \(TRPP\)"](#)
  - [TD-7102P-01, "Distribution Routine Patrol Procedure \(DRPP\)"](#)
  - [TD-7102P-04, "Distribution Vegetation Refusal Procedure"](#)
  - [TD-7102P-06, "Inspection Mapping"](#)
  - [TD-7102P-07, "Vegetation Management Hazard Tree Rating and Scoring"](#)
  - [TD-7102P-08, "Facility Protect and Work Difficulty Classification Procedure"](#)
  - [TD-7102P-09, "Reporting Abnormal Field Conditions Procedure"](#)
  - [TD-7102P-16, "VM Riparian Review Procedure"](#)
  - [TD-7102P-16-JA01, "Identifying Riparian Areas"](#)
  - [TD-7103P-09, "Vegetation Management Hazard Notification Procedure"](#)

## Vegetation Management Second Patrol Procedure

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### PROCEDURE STEPS

#### 1 General Requirements

- 1.1 New regulations require a 4-foot (ft.) minimum clearance year-round in the designated HFTD areas; with a recommended clearance of 12 ft. at the time of trim.
- 1.2 CHECK the Fire Index Ratings for work locations before starting work.
- 1.3 FOLLOW all best management practices as defined in [Job Aid TD-7102P-01-JA01, "Best Management Practices \(BMPs\) for Vegetation Management Activities."](#)
- 1.4 FOLLOW all avoidance and minimization measures (AMMs) specific to the location.

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### 2 Preparing Work for Second Patrol Inspections

- 2.1 The senior consulting utility forester (SCUF) must PERFORM the steps in [Appendix A, "SCUF – Prepare Work and Create Read-Only Packets for Second Patrol,"](#) to PREPARE second patrol work, CREATE read-only packages, AND ASSIGN work to a consulting utility forester (CUF).

### 3 Performing Patrol Types

- 3.1 For projects identified as **CEMA GROUND** and **CEMA Aerial** in the project management database (PMD), the PI must perform the following major steps:

1. INSPECT all portions of a line within the SRA and HFTD layers (including an HFTD in the LRA area designated as an Increased Clearance Area [ICA]) once per year, approximately 6 months after routine patrol inspection of the circuit.
2. In accordance with Utility Procedure [Utility Procedure TD-7102P-06, "Inspection Mapping,"](#) DOCUMENT the completed inspection as follows:
  - a. HIGHLIGHT the line inspected on a circuit map.
  - b. SIGN AND DATE the circuit map.

- 3.2 For projects identified as CEMA WUI and CEMA FHSZ in the PMD, the PI must perform the following major steps:

1. INSPECT only portions of the circuit that are in local response areas (LRAs) outside HFTD ICA AND within the two GIS layers, WUI areas and FHSZs, once per year, approximately 6 months after routine patrol inspects the circuit.
2. In accordance with [TD-7102P-06](#), DOCUMENT the completed inspection as follows:

#### NOTE

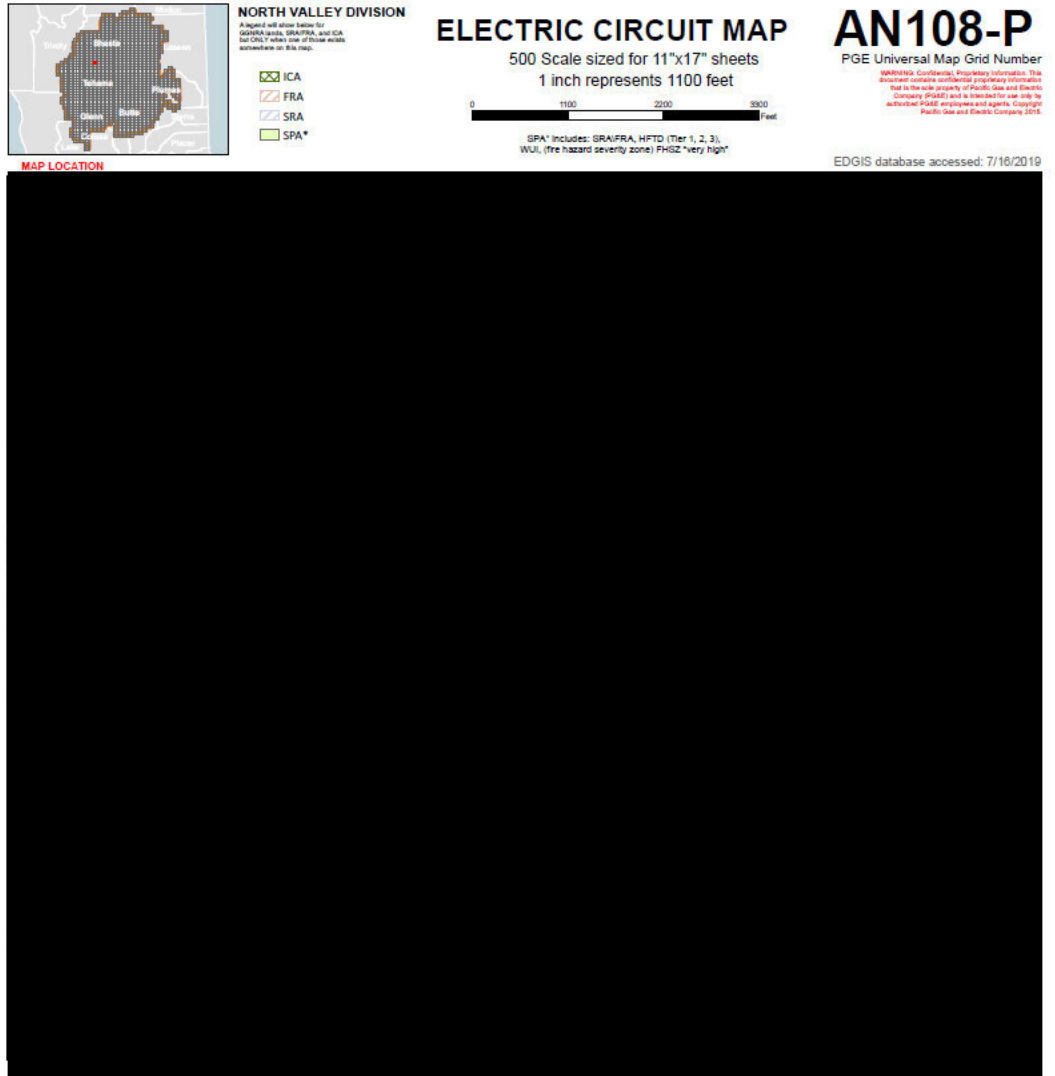
- Circuit maps with a layer designated as Second Patrol Area (SPA) are located on the Shared drive and can be accessed by going to the VMShared drive in the Second Patrol folder for the current year, within a subfolder named Second Patrol Area Maps.
- The second patrol area layer on the circuit maps contains the designated patrol areas of SRA, HFTD/ICA, WUI, and FHSZ.

- a. HIGHLIGHT the line inspected on a circuit map.
- b. SIGN AND DATE the circuit map.
- c. For projects designated as CEMA GROUND and CEMA AERIAL in the PMD, the PI must patrol all line segments WITHIN areas designated on the maps as SRA, FRA, and ICA.

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3.2 (continued)

- d. For projects designated as CEMA WUI in the PMD, the PI must patrol all line segments within areas designated on the maps as SPA and that are NOT in the SRA/FRA or ICA layer.

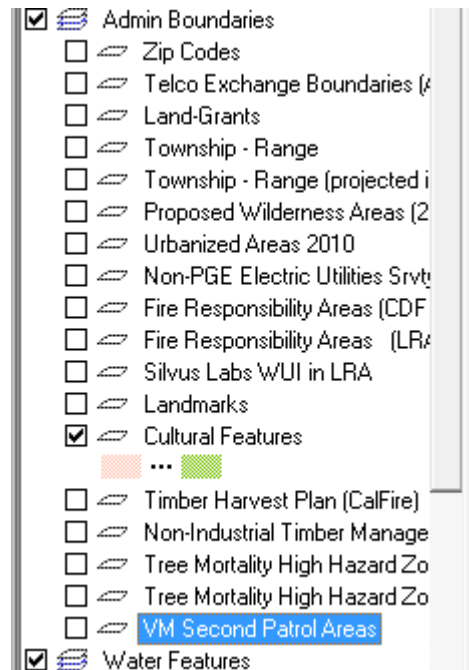


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### 3.2 (continued)

3. To view these layers on MapGuide GIS, perform the following tasks:
  - a. SELECT Admin Boundaries.
  - b. For the SPA, SELECT **VM Second Patrol Areas**.

This layer is visible at the 500K scale.



## 4 Creating a New Packet on a Mobile Device

- 4.1 See [Appendix B, "CUF – Creating a New Packet on a Mobile Device for Second Patrol Projects,"](#) for instructions for the CUF to create a new packet for each second patrol project

## 5 Editing Location Route Information

- 5.1 The PI must perform the following steps to edit the location route information in the mobile device to indicate that it is a CEMA project location:

1. CLICK **Edit**.

The **Edit Location Route Info** window appears.

2. For **Circuit**, SELECT the circuit undergoing work.
3. For the source side device number (**SSD #**), ENTER the source side device (SSD) on which the project is located.

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### 5.1 (continued)

4. For the source side route number (**SSD Rt#**), ENTER **606060** to ensure that a single work request is created for all locations.
5. For the location route number (**Loc Rt#**), make the following entries:
  - a. ENTER the first number from the number range assigned by the SCUF to the first location.
  - b. INCREMENT each subsequent location number by 10.

For example, if the SCUF-assigned range is 210 to 300, use 210 first, followed by 220, then 230, etc.

#### NOTE

The **Tag Type** and Tag Number (**Tag #**) fields are not used when the prescribed work is for dead, dying, and declining trees, or dead portions of trees including dead overhangs, that can contact PG&E facilities if they fail.

6. LEAVE the **Tag Type** and **Tag #** fields blank unless work identified is for trees approaching the MDR or trees that meet Hazard Notification criteria. Refer to [Section 10.1, Table 1, "Tree Conditions,"](#) for guidance on when to use appropriate tag types.
7. Click **Finish**.

## 6 Patrolling the Location Following the Second Patrol Scope-of Work

The scope of work addresses the following conditions:

- Dead, dying, and declining trees, or dead portions of trees including dead overhangs, that can contact PG&E facilities if they fail
- Green trees observed within the minimum distance requirement (MDR) or with the potential to encroach the MDR before next patrol cycle
- Green hazard trees with the potential to impact the electric facilities
- Trees causing strain or abrasion on secondary lines
- Abnormal field conditions

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- 6.1 The CUF must RECEIVE the Locations Report from the SCUFL AND must review the report to verify whether marked trees still unworked are listed on a pending work request.
1. IF the tree is on a pending work request but has declined or encroached on the MDR AND the inspector believes the tree is at risk of not holding,  
  
THEN [TD-7103P-09](#) must be implemented.
  2. The CUF must then INFORM the DMS so the pending work request line item can be closed as 'not worked' once the HN tag is generated.

### 7 Entering Tree Data

- 7.1 To enter tree data in the vegetation management database (VMD), the PI must perform the following steps:
1. On the VMD **Location** screen, CLICK the **Tree List** tab at the top of the screen.
  2. CLICK **New** at the bottom of the page.  
  
The **VMD - Tree** window appears.
  3. CLICK **Edit**.  
  
The **Edit Tree Detail Info** window appears.
  4. ENTER the following information:
    - a. For **Tree Type**, SELECT from the drop-down list.
    - b. For **Species**, SELECT from the drop down list.
    - c. For **Property Owner**, SELECT from the drop-down list.
    - d. For **Quantity**, ENTER the number of trees.
    - e. For **Joint Pole**, SELECT from the drop-down list.
    - f. For **Tree Comments**, ENTER the location of the trees AND specific instructions for performing the work.
    - g. For **Trim Code**, BASE the individual tree prescriptions on [TD-7102P-08](#), "[Facility Protect and Work Difficulty Classification Procedure](#)" AND SELECT from the drop-down list.
    - h. For **Height**, ENTER the height in feet.
    - i. For **DBH**, ENTER the diameter in inches.



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### 7.1 (continued)

- j. For **Clearance**, ENTER 0 for all removals OR specify the clearance for trims in inches.
- k. For **Priority**, SELECT **Routine** from the drop-down list.
- l. For **Cycle**, SELECT **Routine** from the drop-down list.
- m. For **Crew**, ENTER the crew type.

5. CLICK **Finish**.

## 8 Communicating with the Customer

### NOTE

ENTER the customer contact information for any safety issues or production impacts, such as the presence of a dog, requests to notify first, locked gate, and concerned customer alerts.

8.1 The PI must perform the following steps to contact and communicate with the customer:

1. ATTEMPT to CONTACT the customer.
2. IF successful,  
  
THEN perform the following tasks:
  - a. EXPLAIN the scope of work being prescribed, including the scope of clean up and the amount of debris likely to be left behind.
  - b. When possible, OBTAIN a signed Notification of Tree Work (NTW) Form from the property owner for heavy trimming and removal work.

### NOTE

All non-contact refusals (absent land owner locations) require photographs of the dead/dying tree canopy to be mitigated.

3. IF **unable** to contact the customer after 3 documented attempts within 5 business days,  
  
THEN perform the following steps:
  - a. FOLLOW [Attachment 1, "Customer Notification Process."](#)
  - b. PROVIDE required photographs for the Customer Impact process.

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### 9 Processing Refusals

9.1 IF the customer refuses work entirely OR limits the work so as to severely limit positive trim results, THEN the PI must perform the following steps:

1. INDICATE the location as a refusal in the mobile device AND CREATE an ITS record.
2. FOLLOW [TD-7102P-04, "Distribution Vegetation Refusal Procedure."](#)
3. ENTER the tree prescriptions into the mobile device.
4. MARK the location as "Refusal."

9.2 The local lead or refusal specialist must perform the following tasks:

1. ATTEMPT to make a second contact to resolve the refusal.
2. IF the refusal remains unresolved,  
  
THEN PASS the refusal to the designated second patrol SCUF or second patrol VPM for further action.

### 10 Identifying Routine Compliance Work During Second Patrol

10.1 The PI must IDENTIFY the trees with conditions listed in Table 1 below AND PERFORM the action specified for each.

**Table 1. Tree Conditions**

Tree Condition Identified	Action
Green trees observed within the MDR, See <a href="#">TD-7102P-01</a> , Attachment 1, "Minimum Distance Requirements (MDR)."	FOLLOW <a href="#">Utility Procedure TD-7103P-09, "Vegetation Management Hazard Notification Procedure."</a>
Trees that are approaching the MDR that are not expected to maintain compliance until the next routine inspection cycle.	ENTER the routine work in the mobile device as a <b>Missed Tree</b> tag.
Green, significantly leaning trees with indications of basal defect or soil instability, and uprooted trees in the surrounding stand, that are likely to fail into the facilities before the next annual patrol.	ENTER the routine work for these trees in the mobile device as an <b>Unforeseen</b> tag.
Structurally unsound green limbs and dead palm fronds above the conductors with the potential to fail into the facilities before the next routine patrol.	ENTER the routine work for these trees in the mobile device as an <b>Unforeseen</b> tag.

10.2 WHEN an abnormal field condition is identified,

THEN the PI and TC must FOLLOW [Utility Procedure TD-7102P-09, "Reporting Abnormal Field Conditions Procedure."](#)

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- 10.3 The second patrol SCUF must NOTIFY the local area DMS of routine tags created and uploaded to the system.

### 11 Processing Trees within Riparian Areas

- 11.1 For identifying riparian areas, the PI must FOLLOW the instructions in [Job Aid TD-7102P-16-JA01, "Identifying Riparian Areas."](#)
- 11.2 For trees within a riparian area identified as needing work, the PI must FOLLOW [Utility Procedure TD-7102P-16, "VM Riparian Review Procedure."](#)

### 12 Post Patrol and Reporting

- 12.1 At least once a day, the PI must TRANSMIT the data collected using the mobile device.
- 12.2 At the end of each project, the PI must PERFORM the following steps:
1. COLLECT all project documents, which commonly include the following documents:
    - NTW
    - Highlighted Maps
    - Inspection Maps
  2. SUBMIT the documents to the SCUF.
  3. STORE the documents in the circuit folder.

### 13 Completing the Project

- 13.1 WHEN a project is complete,  
THEN the SCUF must PERFORM the following steps:
1. SEND a completion email to the local DMS, providing the following information:
    - Project Name
    - Project Number
    - Date of closing
    - Total number of units

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13.1 (continued)

2. FILE the project folders in the local office with all relevant documentation, including, but not limited to the following documents:
  - Index and Field maps highlighted and signed by the CUF and SCUF.
  - Original signed NTWs (where applicable).
  - Additional permits (ERTC communications, AMMs).

### 14 Performing Aerial Patrols

- 14.1 See [Attachment 3, "Aerial Patrols,"](#) for guidance on planning, executing and documenting aerial patrols.

### END of Instructions

### DEFINITIONS

**CEMA:** In 2014, PG&E implemented a CEMA program to recover costs due to increased tree mortality from prolonged drought and bark beetle infestations within the PG&E service territory.

**Fire Hazard Severity Zone (FHSZ):** A layer produced by CAL FIRE and the Resource Assessment Program (FRAP) using data and models describing development patterns, potential fuels over a 30-50 year time horizon, expected fire behavior, and expected burn probabilities, to quantify the likelihood and nature of vegetation fire exposure. This second patrol project pertains only to the **very high** fire severity zone within the LRA.

**VM Back Office:** A web-based software system that includes the VMD and the PMD.

**Wildland Urban Interface:** The area where structures and other human developments meet or intermingle with undeveloped wildland.

### IMPLEMENTATION RESPONSIBILITIES

VM operations personnel are responsible for the rollout, communication, and distribution of this utility procedure.

### GOVERNING DOCUMENT

[Utility Standard TD-7102S, "Distribution Vegetation Management Standard \(DVMS\)"](#)

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### COMPLIANCE REQUIREMENT / REGULATORY COMMITMENT

[California Public Utilities Commission \(CPUC\) General Order \(G.O.\) 95, Rule 35](#)

[G.O. 95, Rule 18, Section B](#)

[Public Resource Code \(PRC\) 4292](#)

[PRC 4293](#)

### REFERENCE DOCUMENTS

#### Supplemental References:

[TD-7102P-01, "Distribution Routine Patrol Procedure \(DRPP\)"](#)

[TD-7102P-01, Attachment 1, "Minimum Distance Requirements \(MDR\)"](#)

[TD-7102P-04, "Distribution Vegetation Refusal Procedure"](#)

[TD-7102P-06, "Inspection Mapping"](#)

[TD-7102P-08, "Facility Protect and Work Difficulty Classification Procedure"](#)

[TD-7102P-09, "Reporting Abnormal Field Conditions Procedure"](#)

[TD-7102P-16, "VM Riparian Review Procedure"](#)

[TD-7102P-16-JA01, "Identifying Riparian Areas"](#)

[TD-7103P-01, "Transmission Non-Orchard Routine Patrol Procedure \(TRPP\)"](#)

[TD-7103P-09, "Vegetation Management Hazard Notification Procedure"](#)

### APPENDICES

[Appendix A, "SCUF – Prepare Work and Create Read-Only Packets for Second Patrol"](#)

[Appendix B, "CUF – Creating a New Packet on a Mobile Device for Second Patrol Projects"](#)

### ATTACHMENTS

[Attachment 1, "Customer Notification Process"](#)

[Attachment 2, "Red Flag Patrols"](#)

[Attachment 3, "Aerial Patrols"](#)

## Vegetation Management Second Patrol Procedure

### DOCUMENT REVISION

TD-7102P-23, Vegetation Management 2016 Second Patrol - Practices, Rev. 0

TD-7102P-23, "Vegetation Management 2017 Second Patrol - Practices, Rev. 1"

### DOCUMENT APPROVER

██████████ Senior Manager, Vegetation Management

### DOCUMENT OWNER

██████████ Supervising Program Manager, Vegetation Management

### DOCUMENT CONTACT

██████████ Supervising Program Manager, Vegetation Management

██████████ Supervising Program Manager, Vegetation Management

### REVISION NOTES

Where?	What Changed?
Procedure Steps Section	Moved action steps previously located in the TD-7102B-007, "VM Second Patrol - Scope of Work" procedure to this procedure; reorganized and rewrote Procedure Steps section.
Incorporated B012 and B019.	To include HFTD to the current year's Second Patrol projects in PMD, Second Patrols are now in all HFTD areas, not limited to just SRA or Specific WUI LRA areas.  Scope includes Dead/Dying trees listed as CEMA account type. Also includes trees within the MDR to be entered as HN Tags. Trees outside the MDR but that will not hold the MDR clearance until next PI cycle to be entered as missed tree tag (or other if applicable). Also includes abnormal field conditions and hazard trees due to structural defects that cannot wait for next cycle.
Red Flag Patrol Section Created Attachments for	Moved to attachment Aerial patrols Using LiDAR data
Created appendices for	Planning second patrol work and creating read only packets Creating new packet on mobile device for second patrol
Throughout	Edited for alignment with GDM documentation standards.

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### Appendix A, SCUF – Prepare Work and Create Read-Only Packets for Second Patrol

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- A. The SCUF must perform the following steps to prepare work for the second patrol:
1. IDENTIFY the project to work.
  2. SEND a “start of project” email to the DMS and local VPMs.
  3. CREATE a VMD Locations Report for locations where trees are marked for mitigation but still standing, as follows:
    - a In the VMD Locations Report, PERFORM an Advanced Search with the following information:
      - Division
      - Account type **maintenance**
      - Circuit Name
      - SSD RT #
      - Trim Type **IN LIST = ALL FP CODES**
    - b SELECT **VMD Locations**.
    - c SELECT **RUN**.
  4. RESEARCH, COMPILE, AND PROVIDE the following project information to the CUF performing the second patrol inspection:
    - Circuit name and project number
    - Number range for Location Route Number
    - Copy of line section / circuit map from local area DMS / SCUF
    - VMD Locations Report of previous First Patrol FP work
    - PI Tree Inspection Safety Report
    - Ownership issues
    - Agency issues
    - Customer issues
    - Municipal and/or local ordinances
    - Environmental issues, such as Limited Operating Periods (LOPs) and FERC areas
  5. ASSIGN the project to a CUF for patrol.

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### Appendix A, SCUF – Prepare Work and Create Read-Only Packets for Second Patrol

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- B. The SCUF must perform the following steps to create a read-only packet in VMD:

**NOTE**

The SCUF may assign CUF **read-only** routine maintenance pre-load packets for each project.

1. If needed, the SCUF must FOLLOW the instructions below to create a read-only packet:
  - a NAVIGATE to the Vegetation Management Website.
  - b In the **Functions** section, CLICK on **Back Office VMD**.  
The **Back Office VMD Main Menu** screen appears.
  - c In the Back Office VMD Main Menu, CLICK on **Create Preload Packet**.  
The PI Work Packet – Pre-Load Query screen appears.
  - d CREATE the preload packet as follows:
    - (1) For **Division**, SELECT the appropriate division.
    - (2) Under **Preload Account Type to Create**, SELECT **CEMA**.
    - (3) Under **Account Type to Search**, SELECT **Maintenance**.
    - (4) Under **Generation Criteria to Search**, SELECT **Circuit, SSD Route**.
    - (5) In the **Field** column, from the first **Select Field Option** pull-down menu, SELECT **Circuit Name**.
    - (6) At the bottom of the **PI Work Packet** screen, CLICK **Run Query**.
    - (7) The results of the query appear.
2. To ASSIGN circuits and routes, perform the following steps:
  - a CHECK the circuits and routes to assign.
  - b CLICK **Assign** at the bottom of the window.  
The **Assign To Options** window pops up.



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### Appendix A, SCUF – Prepare Work and Create Read-Only Packets for Second Patrol

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#### B.2 (continued)

c ASSIGN options as follows:

- (1) For **Contractor**, SELECT the contractor.
- (2) For **Mobile User**, SELECT the CUF.
- (3) CLICK within the **PMD Project Name** field to display a drop-down list AND SELECT the appropriate project name.

The system automatically fills in the PMD **Project Number** field.

- (4) In the **Comments** field, TYPE “Read Only.”



#### CAUTION

The **Read Only** box **must** be checked to prevent edits to routine maintenance records,

d At the bottom of the **Assign to Options** window, MAKE the following selections:

- (1) CHECK the **Read Only** field to make the packet read only.
- (2) CLICK **OK**.

Creation of the read-only packet is complete.

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### Appendix B, CUF – Create a New Packet on a Mobile Device for Second Patrol Projects

Page 1 of 1

- A. The CUF must perform the following steps to create a new packet for each second patrol project where work is prescribed using the VM mobile application on a mobile device:
1. In the **Applications** tab, SELECT the icon for **VM Application**.  
The **Work Folder** screen appears.
  2. At the bottom of the **Work Folder** screen, CLICK **New**.  
The Create Packet folder appears.
  3. Make the following selections for the fields in the **Create Packet** window:
    - a For **Account Type**, SELECT **CEMA**.
    - b For **Division**, SELECT the division in which the work is being performed.
    - c CLICK **Distribution**.
    - d For **Project ID** (required), ENTER the last six digits of the project ID provided by the SCUF, omitting the leading zero and without the dash (-). For example, for a PMD project number provided by the SCUF of 0xx-xxxx, enter the project ID in the following format: xxxxxx.
    - e CLICK **Finish**.

The new packet is created and the VMD **Location** screen appears.