DATA REQUEST RESPONSE Bear Valley Electric Service, Inc. Wildfire Mitigation Plan

Response provided by:	Jon Pecchia
Title:	Utility Manager
Data Request Number:	GaryCandelasWSD-019_2021_05_19
Date Received:	May 19, 2021
Date Due:	June 9, 2021
Date Provided:	June 9, 2021

From Gary Candelas (Wildfire Safety Division) email to BVES dated May 19, 2021. The following questions relate to BVES's Vegetation Management. Due date extended to June 9, 2021, from June 2, 2021.

BVES Remarks: the numbering of sub-questions shown below is found in error. For example, sub-question 1c refers to sub-question 1b as 2(c). Similar errors can be found Questions 2, 3, 4, and 5.

1. 5.3.5.2: Detailed inspections of vegetation around distribution electric lines and equipment.

In BVES' 2021 WMP update, BVES stated that it had completed 100% of scheduled circuits, as it pertains to BVES' 2020 WMP initiative 5.3.5.2: Detailed inspections of vegetation around distribution electric lines and equipment (initiative 7.3.5.2 in BVES' 2021 WMP Update). In Table 5.3-1 of its 2021 WMP Update, BVES stated that "detailed inspections of vegetation around distribution electric lines and equipment" is combined with the "detailed inspections of distribution electric lines and equipment."

- a. Provide the raw data in Microsoft Excel format supporting the completion of detailed vegetation inspections for 100% of scheduled circuits in 2020.
- **b.** Provide a list of all data inputs used to calculate initiative completion and the source of such data.
- c. Explain what steps BVES took to validate the data identified in response to 2(b).
- d. Explain the methodology, including any formulas and assumptions, BVES used to calculate initiative completion from the data inputs identified in response to 2(b).

Response:

- a. Please refer to the attached pdf document titled "2020 Grid Map". The document shows the vegetation grid map with highlighted areas of work completed in 2020. BVES is currently on a 3-year trim cycle of all 211 miles of lines. In addition, please refer to the attached Excel spreadsheet titled "2020 Vegetation Record", which indicates the work completed by BVES tree trimming contractor.
- b. The "2020 Grid Map" shows work completed in 2020 by the area highlighted in green. The "2020 Vegetation Record" shows what work was completed and sorted by date, location, species of tree, and type of cut. Based on these two documents BVES ensures that the tree trimming crews are on schedule to complete the whole cycle in 3 years.
- c. BVES validates the work completed by conducting weekly quality control checks.
- d. BVES employees are given random sections of tree trimming and removal work from the previous week and they have to confirm that the work was up to BVES standards. BVES uses an application called Kintone to complete the Quality Checks. In 2020 BVES conducted quality control checks on 11.6% of the tree trims and removals. In 2020, 100% of the quality control checks passed inspection.

2. 5.3.5.5: Fuel management and reduction of "slash" from vegetation management activities

In BVES' 2021 WMP update, BVES stated that its Vegetation Management contractor removes vegetation wastes as part of their contract, as it pertains to BVES' 2020 WMP initiative 5.3.5.5: Fuel management and reduction of "slash" from vegetation management activities (initiative 7.3.5.5 in BVES' 2021 WMP Update).2 BVES also stated that it will conduct outreach with the U.S. Forest Service, CAL FIRE and Big Bear Fire Department in an effort to develop collaborative measures in the areas of fuels management.3 In Table 12 of its 2021 WMP update, BVES stated that it does not have a specific wildfire mitigation vegetation management and reduction of "slash" from vegetation management and reduction of "slash" from vegetation management and reduction of "slash" from vegetation management activities has been incorporated into BVES' ongoing and newly proposed vegetation management initiative targets in its 2020 or 2021 WMP update. BVES did not provide quantitative targets in its 2020 or 2021 WMP filings as it pertains to 2020 WMP initiative 5.3.5.5.

- a. Provide the raw data in Microsoft Excel format supporting the completion of 2020 quantitative targets for 2020 WMP initiative 5.3.5.5.
 - i. As BVES did not provide a quantitative target for 2020 WMP initiative 5.3.5.5, also inform WSD of BVES' quantitative targets in 2020 for this initiative.

- **b.** Provide a list of all data inputs used to calculate initiative completion and the source of such data.
- c. Explain what steps BVES took to validate the data identified in response to 3(b).
- d. Explain the methodology, including any formulas and assumptions, BVES used to calculate initiative completion from the data inputs identified in response to 3(b).

Response:

a. All waste from tree trimming and removal is chipped and or hauled away by BVES contractor to a disposal site nearby. When conducting Vegetation Management, BVES and its contractor comply with any requirements put forth by the U.S Forest Service, CAL FIRE, and the Big Bear Fire Department.

BVES did not assign a quantitative target for this initiative. BVES's contract with its Vegetation Management contractor requires the contractor to remove all waste from tree trimming. BVES does not collect or maintain raw data on tree trimming waste. It is all removed at the time of trimming or shortly thereafter. Therefore, BVES does not have a Microsoft Excel file of raw data showing completion of initiative 5.3.5.5. BVES has verified by inspection that waste has been removed and, therefore, the initiative is complete. BVES's target for waste removal is 100% of tree trimming waste will be removed.

- b. BVES does not currently track the disposal of "slash"
- c. We are able to validate that the crews are correctly disposing of "Slash" by conducting our weekly Quality Controls.
- d. BVES employees are given random sections of tree trimming/removal work from the previous week and have to confirm that the work was up to BVES standards using an application called Kintone. During the quality control checks BVES employees also ensure that no "slash" is left behind from the tree trimming crews.

3. 5.3.5.9: Other discretionary inspections of vegetation around distribution electric lines and equipment

In BVES' 2021 WMP update, BVES stated that 2020 performance target of was completed of 211 Circuit miles4, as it pertains to BVES 2020 WMP initiative 5.3.5.9: Other discretionary inspections of vegetation around distribution electric lines and equipment (initiative 7.3.5.9 in BVES' 2021 WMP Update). In BVES's Q4 QIU, 211 Circuit miles has been completed5. In Table 5.3-1 of its 2021 WMP Update, BVES stated that "Other discretionary inspections of vegetation around distribution electric lines and equipment" is combined with the "Other discretionary Inspections of vegetation around distribution electric lines and equipment. Third Party Ground Patrol and Fly-over UAV"

- a. Provide the raw data in Microsoft Excel format supporting the completion of the 211 Circuit miles, for initiative 5.3.5.9.
- **b.** Provide a list of all data inputs used to calculate initiative completion and the source of such data.
- c. Explain what steps BVES took to validate the data identified in response to 4(b).
- d. Explain the methodology, including any formulas and assumptions, BVES used to calculate initiative completion from the data inputs identified in response to 4(b).

Response:

- a. Please refer to the attached two Excel spreadsheets titled "LiDar Data" and "3rd Party Patrol". The former provides data from the 2020 Lidar inspection, while the latter indicates ground patrol conducted by contractor Davey Resource Group from 2020.
- b. The Lidar data are sorted:

By clearance level, which is as follows: Level 1 is 0-18 inches, Level 2 is 18-48 inches, and Level 3 is 48-72 inches; By circuit; By latitude and longitude coordinates; and By voltage.

The 3rd Party Patrol data are sorted:

By latitude and longitude coordinates; By violation type; and By pole number.

c. BVES sorts the data into the clearance levels and voltage. Vegetation crews begin with the highest priority violations and remedy them accordingly. BVES does not keep separate records of what violations have been fixed. This work is tracked in the "2020 Vegetation Record".

- d. Davey Resource Group is contracted to use Lidar and conduct the ground patrol on all 211 miles of electric lines in BVES service territory.
- 4. 5.3.5.11: Patrol inspections of vegetation around distribution electric lines and equipment

In BVES' 2021 WMP update, BVES stated that 2020 performance target of was completed of 211 Circuit miles7, as i pertains to BVES 2020 WMP initiative 5.3.5.11: Patrol inspections of vegetation around distribution electric lines and equipment (initiative 7.3.5.11 in BVES' 2021 WMP Update). In BVES's Q4 QIU, 211 Circuit miles has been completed8. In Table 5.3-1 of its 2021 WMP Update, BVES stated that "Patrol inspections of vegetation around distribution electric lines and equipment" is combined with the "Patrol Inspections of distribution electric lines and equipment".

- a. Provide the raw data in Microsoft Excel format supporting the completion of the 211 Circuit miles, for initiative 5.3.5.11.
- **b.** Provide a list of all data inputs used to calculate initiative completion and the source of such data.
- c. c) Explain what steps BVES took to validate the data identified in response to 5(b).
- d. Explain the methodology, including any formulas and assumptions, BVES used to calculate initiative completion from the data inputs identified in response to 5(b).

Response:

- a. In compliance with GO 165, BVES field inspector does a yearly patrol inspection of all 211 miles of lines and reports all vegetation violations.
- b. Please refer to the attached Excel spreadsheet titled "2020 Inspections by Quarter". The spreadsheet displays what circuit is patrolled for each quarter of 2020.
- c. BVES employees conduct these inspections.
- d. BVES does not record violations that are found during its patrol. When a violation is found it is forwarded to the vegetation management contractor to be remedied. This work is documented in the "2020 Vegetation Record".

5. 5.3.5.16: Removal and remediation of trees with strike potential to electric lines and equipment

In BVES' 2021 WMP update, BVES stated that 2020 performance target of 100% completed10, as it pertains to BVES 2020 WMP initiative 5.3.5.16: Removal and remediation of trees with strike potential to electric lines and equipment (initiative 7.3.5.16 in BVES' 2021 WMP Update). In BVES's Q4 QIU, 100% of initiative was completed.

- a. Provide the raw data in Microsoft Excel format supporting the completion of 100%, for initiative 5.3.5.16.
 - i. As BVES did not provide a quantitative target for 2020 WMP initiative 5.3.5.16, also inform WSD of BVES' quantitative targets in 2020 for this initiative.
- **b.** Provide a list of all data inputs used to calculate initiative completion and the source of such data.
- c. Explain what steps BVES took to validate the data identified in response to 6(b).
- d. Explain the methodology, including any formulas and assumptions, BVES used to calculate initiative completion from the data inputs identified in response to 6(b).

Response:

- a. Please refer to the attached Excel spreadsheet titled "Tree Removal Record". The spreadsheet shows all the removals that occurred in 2020 across BVES service territory.
- b. BVES removes or remedies any tree that could potentially strike any electric line and equipment. Through various inspections and patrols BVES identifies trees that maybe dying or they may become a danger to equipment. These trees are then removed as soon as possible.
- c. BVES validates the removals by conducting weekly quality control checks.
- d. BVES employees are given random sections of tree trimming/removal work from the previous week and have to confirm that the work was up to BVES standards using an application called Kintone. In 2020 BVES conducted quality control checks on 11.6% of the tree trims and removals. In 2020, 100% of the quality control checks passed inspection.