FINAL INDEPENDENT EVALUATOR ANNUAL REPORT ON COMPLIANCE

JUNE 30, 2023

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1. EXECUTIVE SUMMARY

Background

Derived from the devastating wildfires of 2016 and 2017, the California Public Utilities Commission (CPUC) opened Rulemaking 18-10-007 to provide guidance on the Investor-Owned Utilities (IOUs) Wildfire Mitigation Plans (WMPs). Moving forward, the California Legislature passed several bills increasing the oversight for investor-owned utilities (IOUs) related to mitigating wildfires associated with the electrical corporation's infrastructure role in utility-related wildfires. The decisions resulted in key legislative measures, Senate Bill 901 (2018), Assembly Bill 1054 (2019), and Assembly Bill 111 (2019), which led to the establishment of the Wildfire Safety Advisory Board (WSAB). Since the passing and ratification of this legislation, the Wildfire Safety Division (WSD) of the California Public Utilities Commission (CPUC) has transitioned to the Office of Energy Infrastructure Safety (OEIS)/ Energy Safety at the California Natural Resources Agency (CNRA) on July 1, 2021. The wildfire mitigation process requires utilities to submit their annual Wildfire Mitigation Plan (WMP) in a 3-year cycle. The initial WMP was submitted in the first year (2020), with annual updates occurring for years 2 (2021) and 3 (2022).

Pursuant to P.U. Code Section 8386.3(c)(2)(B)(i), (ii), (iii), and (iv), Bureau Veritas North America, Inc. (BVNA) has been selected as an Independent Evaluator (IE), to review and assess San Diego Gas & Electric (SDG&E) 2022 Wildfire Mitigation Plan (WMP) and provide a compliance report. In carrying out the stipulations of Resolution WSD-021, BVNA has evaluated SDG&E's compliance with its 2022 WMP pursuant to Public Utilities Code Section 8386, validated PG&E's quality assurance and quality control (QA/QC) programs outlined for support of WMP initiatives and reviewed its WMP funding activities.

Scope

Pursuant to San Diego Gas & Electric's 2022 Wildfire Mitigation Plan Update and the requirements of the Public Utilities Code (PU Code), Bureau Veritas North America, Inc. (BVNA), in partnership with C2 Group (C2), has reviewed SDG&E's 2022 WMP issued on February 11, 2022, known as "2020-2022 Wildfire Mitigation Plan Update" (2022 WMP), for initiative compliance verification for the execution of the WMP goals and targets. The IE is responsible for reviewing and assessing SDG&E's compliance with its WMP and verifying whether its provided targets and objectives were met for each WMP initiative and/or activity.

The IE evaluation has provided the following narrative and supplemental documents (See Appendices) for verification of compliance, validation of Quality Assurance (QA)/Quality Control (QC) programs, and assessment of the utility funding activities related to the WMP.

Key Findings

SDG&E's wildfire mitigation programs and strategies are among the most innovative, with strong wildfire initiatives that began after the October 2007 wildfires. Since then, SDG&E has completed hardening over 400 miles of transmission lines and over 900 miles of distribution lines. SDG&E has developed partnerships with local stakeholders and formed the Wildfire Safety Community Advisory Council (WASC), composed of leaders from the San Diego Region. SDG&E is a leader on the innovation front through efforts such as building an in-house meteorology team and a supporting dense utility-owned weather station network, an AI forecasting system across 190 weather stations with Artificial Intelligence (AI) smoke detection algorithms identifying fires soon after ignition in combination with satellite and mountaintop cameras, additionally, installing particulate sensors measuring the Air Quality Index (AQI) notification system built on their weather station network, providing real-time AQI values throughout San Diego County.

SDG&E continues to make progress on its wildfire mitigation initiatives, aligning with the near-term mitigation strategies and objectives specified in Tables 7-1: SDG&E's Near-Term Strategy and Goals by WMP Category and Section 7.3 Detailed Wildfire Mitigation Programs providing a detailed roadmap of SDG&E's strategic objectives divided into three timelines: by June 1, 2022, by September 1, 2022, and prior to the 2023 WMP update. SDG&E's mitigation strategy is structured into the following key categories:

- Risk Assessment and Mapping
- Situational Awareness and Forecasting
- Grid Design and System Hardening
- Asset Management and Inspections
- Vegetation Management Plan
- Grid Operations and Protocols
- Data Governance
- Resource Allocation Methodology
- Emergency Planning and Preparedness
- Stakeholder Cooperation and Community Engagement

This report presents a thorough analysis of the subject at hand. It draws upon comprehensive research, data interpretation, and insightful observations. The subsequent sections will present an overview of the key findings derived from this in-depth assessment. These findings include pivotal insights, critical conclusions, and potential recommendations. These highlights offer valuable understanding and direction in this context.

Large Volume Quantifiable Goal/Target - Field Verifiable

- The Independent Evaluator (IE) team affirmed the success of all five Large Volume Quantifiable Goal/Target - Field Verifiable items as they met or surpassed their 2022 WMP target goals. During their field visits to 1,017 locations, the IE team found only a fraction - approximately 0.688% or seven structures – where work was not completed at time of the field visit. It's noteworthy that in a combined total of 597 locations visited by the IE team, zero workmanship issues were identified for the initiatives related to Wireless Fault Indicators (7.3.2.3-WMP.449), Expulsion Fuse Replacement (7.3.3.7-WMP.459), and Maintenance, Repair, and Replacement of Connectors, which includes Hotline Clamps (7.3.3.10-WMP.464).

Large Volume Quantifiable Goal/Target - Not Field Verifiable

- The Large Volume Quantifiable Goal/Target - Not Field Verifiable section includes 22 WMP initiatives with combined SDG&E targets of approximately 714,000. A minimum of 5,035 samples must be taken to achieve statistically significant extrapolated results. The IE team was unable to obtain whole samples from approximately half of the initiatives, totaling 3,085, due to the way field inspection documentation is tracked in SAP and the ability to export that information. The IE obtained approval from the Office of Energy and Infrastructure and Safety (OEIS) to reduce the random sampling sizes. With these sampling adjustments, additional data requests, and SME interviews, the IE was able to validate 20 of the 22 initiatives, and based on the information provided in data requests and desktop reviews, the IE verified the following:
    - 17 of the targets/goals were exceeded
    - seven (7) were met
    - one (1) was not met
    - one (1) could not be validated by the IE
- The IE determined that SDG&E had effectively achieved its Section 3.1.2 Large Volume Quantifiable Goals and target initiatives described in the 2022 WMP. Some of the IE's findings in Section 3.1.2 are included as follows:

Verification of Funding

The IE analysis of Capital and O&M expenditures found that two of the largest underspent Capital only budgets were due to cost savings associated with increased construction efficiency and lower construction costs. These cost savings totaled $35,131.35 and $62,169.57, for $97,300.92. This favorable finding indicates that SDG&E could save money on these projects without compromising the risk reduction intent.

The three largest combined underspent Capital and O&M budgets were due to project delays associated with not acquiring appropriate and sufficient land rights, the Federal Communications Commission (FCC), and construction delays/partial completion. These delays totaled $10,611.78, $1,035.50, and $25,464.28, for a total of $37,111.56 as further detailed within the Section 3.2 Verification of Funding section.

2. INTRODUCTION

In an ongoing process, the Wildfire Safety Division (WSD) of the Wildfire Safety Advisory Board (WSAB) publishes recommendations for Investor-Owned Utilities (IOUs) to be addressed in the three (3) year cycle of WMPs. A review of all documents supporting the implementation of the 2022 WMP strategic initiatives has been conducted. BVNA, in partnership with C2 Group, has provided the following IE evaluation report (Report) describing the technical review and findings.

SDG&E is a regulated public utility that provides energy service to more than 3.7 million people through 1.5 million electric meters and 900,000 gas meters in San Diego and part of Orange County, with a service area spanning 4,100 square miles. The company was founded in 1881, headquartered in San Diego, and is a subsidiary of Sempra Energy, a Fortune 500 Company.

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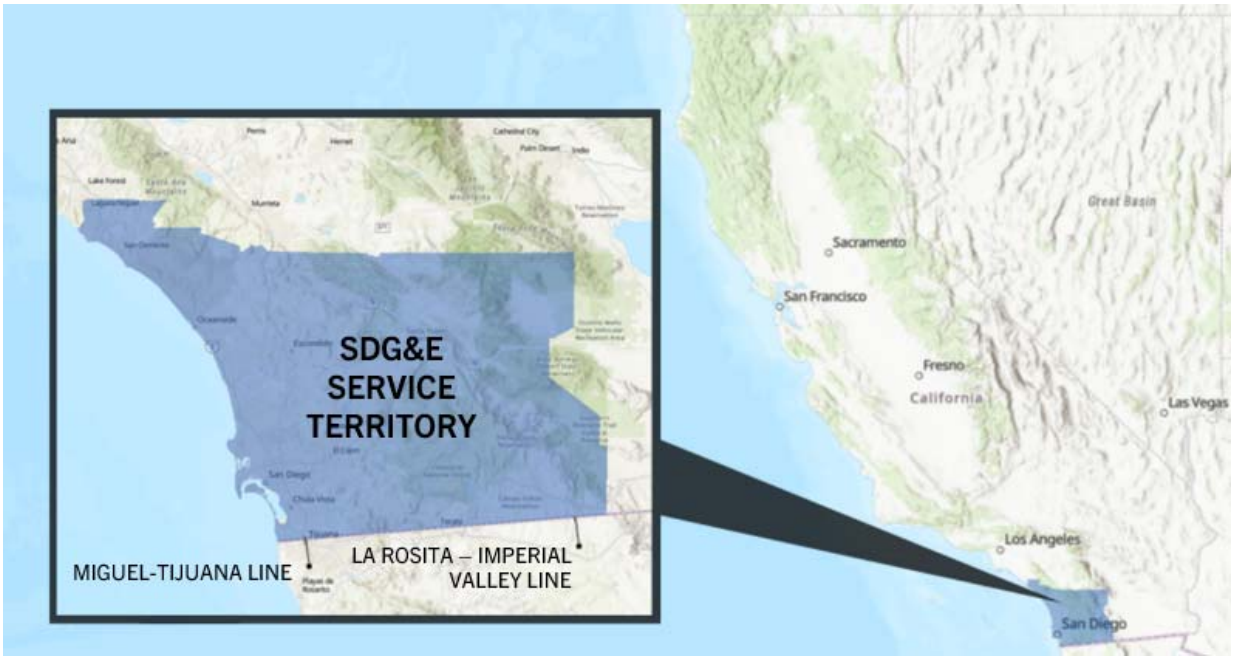


Figure 1: Map of SDG&E's Service Territory

3. INDEPENDENT EVALUATOR REVIEW OF COMPLIANCE

For the evaluation of SDG&E's compliance with the 2022 WMP, the overall approach to verify compliance included the review and assessment of the multiple WMP activities through data requests, Subject Matter Expert (SME) interviews, review of publicly available documents, and conducting field assessments within SDG&E's service area to documented and validated aspects detailed and outlined in SDG&E's 2022 WMP. At the time of the commencement of the evaluation, the IE initiated a review of SDG&E's 2022 WMP along with publicly available documents as listed in the Appendices to identify SDG&E's statements detailed within the 2022 WMP goals. SDG&E's Plan elements and their fulfillment of commitments, initiatives, and metrics are included in the QA/QC provisions outlined within the WMP. BVNA's and C2 Group's understanding of collected utility strategies demonstrated throughout the state are summarized below:

1. **Inspection and maintenance of distribution transmission and substation assets,** including conducting system patrols and ground inspections using technological inspection tools, managing predictive and electrical preventative maintenance, conducting vegetation inspections and management, vulnerability detection such as Light Detection and Ranging (LiDAR) inspection, and geospatial and topography identification and geographic information system (GIS) mapping data. A key component is identifying collected data elements through each program and understanding how that data is used and shared to improve utility practices.
2. **Vegetation management,** including routine preventative vegetation maintenance; corrective vegetative management and off-cycle tree work; emergency vegetation clearance, prioritized for portions of the service territory in Tier 2 and 3 HFTD; quality control processes; and resource protection plan, including animal and avian mitigation programs. In addition, the goal of Enhanced Vegetation Management (EVM) aims to keep all aspects of trees away from power lines and to prescribe minimum clearances that exceed state standards. In addition, EVM implements frequencies of inspection beyond the routine patrols to address down dead, diseased, or dying trees from power lines where they can do no harm.
3. **System hardening** that includes pole replacement, non-expulsion equipment, advanced fuses, tree attachment removal, less flammable transformer oil, covered wire and wire wrap, and undergrounding where cost beneficial.
4. **Operational practices,** including communications and executing plans under varying degrees of wildfire risk. Plans to deactivate automatic reclosers, de-energization of “at risk” area power lines based on the type of facility (overhead bare conductions, high voltage, etc.), tree and vegetation density, available dry fuel, and other factors that make specific locations vulnerable to wildfire risk.

5. **Situational awareness** includes obtaining information from devices and sensors on the actual system, weather, and other wildfire conductivity conditions and two-way communication with agencies and key personnel. Programs such as online feeds and websites such as the National Fire Danger Rating System are utilized. Situational awareness should help achieve a shared understanding of actual conditions and serve to improve collaborative planning and decision-making.
6. **De-Energization actions** triggered and prioritized by forecasted extreme fire weather conditions: imminent extreme fire weather conditions; validated extreme fire weather conditions; and plans for re-energization when weather subsides to safe levels. Manual or automatic capabilities exist for implementation.
7. **Advanced Technologies** include Distribution Fault Anticipation technology, tree growth regulators, pulse control fault interrupters, oblique and hyperspectral imagery, advanced transformer fluids, advanced LiDAR, and advanced Supervisory Control and Data Acquisition (SCADA) to reduce electrical ignition while also helping to mitigate power outages and equipment damage.
8. **Emergency Preparedness, Outreach, and Response communications** before, during, and after emergencies, including but not limited to engaging with key stakeholders that include critical facilities and served customers, local governments, critical agencies such as the California Department of Forestry and Fire Protection (CAL FIRE), local law enforcement agencies and other first responders, hospitals, local emergency planning committees, other utility providers, California Independent System Operator and the utility's respective Board. Coordination agreements such as Mutual Aid or Assistance should be leveraged. A community outreach plan should inform and engage first responders, local leaders, land managers, business owners, and others.

For those activities described in the WMP but not available within the publicly available records, BVNA's team of IE's submitted data requests and conducted SME interviews to verify activities stated within the 2022 WMP (See Appendix C for Data Requests Submitted and Responses). Along with the document analysis, data requests, and SME interviews, the IE conducted field assessments within HFTD Tier 2 and Tier 3 areas to collect images and evaluate compliance with the 2022 WMP activities or initiatives identified during the IE initial review. This also included an assessment of those items supporting the mission of fire mitigation, such as the camera's use of smart meters for line fault identification. The analysis and key findings for each respective section are detailed further within the following sections.

3.1 WMP Activity Completion

WMP activities outlined in SDG&E's 2022 WMP are demonstrated in tables "Table 5-2 List and Description of Program Targets, Last 5 Years." Appendix A provides a detail of the initial activities and their grouping as it pertains to Initial IE Categorization. As described above, the WMP activity includes initiatives aligned with compliance metrics developed by WSAB. Given the extensive nature of SDG&E's asset inventory, the IE assessment of activity completion is itemized in this report's following sections. The details in Section 3.1.1, and in conjunction with Appendix A, provide a comprehensive overview of the specific verifications conducted by the IE.

3.1.1 Sampling Methodology and Discussion

In total, the IE assessed the following IE Categorizations with the associated Initiative Category/Program Target. WMP Initiative Categorization & IE Verifications required are:

Category 1 - 3.1.2 Large Volume (>/= 100 units) Quantifiable Goal/Target – Field Verifiable, specific verification performed by IE are installation and work quality (adherence to applicable standards and protocols):

- Grid Design & System Hardening
- Situational Awareness & Forecasting

Category 2 - 3.1.3 Large Volume (>/= 100 units) Quantifiable Goal/Target – Not Field Verifiable, specific verification performed by IE are work completion and performance.

- Asset Management & Inspections
- Grid Design & System Hardening
- Vegetation Management & Inspections

Category 3 - 3.1.4 Small Volume (less than 100 units) Quantifiable Goal/Target, specific verifications performed by IE are the installation or work completion or performance, along with work quality.

- Grid Design and System Hardening
- Situational Awareness and Forecasting

Category 4 - 3.1.5 Qualitative Goal/Target, specific verifications performed by IE are work completion and performance.

- Asset Management and Inspections
- Data Governance
- Emergency Planning and Preparedness

- Grid Design and System Hardening
- Grid Operations and Operating Protocols
- Resource Allocation Methodology
- Risk Assessment and Mapping
- Situational Awareness and Forecasting
- Stakeholder Cooperation and Community Engagement
- Vegetation Management and Inspections

As demonstrated above, each IE Category has aspects of each defined Initiative Category/Program Target specific to the Initiative Activity and Utility Initiative Name. This depiction illustrates how the electrical corporations categorized the list of all WMP initiatives and accompanying goals and targets as scoped for IE review. From the list, the IE based its sample size and verification method upon the initiative scope, requested additional documentation, conducted SME interviews, and selected samples to be field verified.

Large Volume Quantifiable Goal/Target - Field Verifiable.

The IE applied sampling methodologies and standards to program targets to ensure the sampling quantities were statistically acceptable. The sample sizes were determined using Mil-Std-105-E, an attribute sampling plan adopted in 1995 by the American National Standards Institute (ANSI) / American Society for Quality (ASQ) Z1.4-2008. When SDG&E's actual quantity of completed work exceeded the amount targeted, the greater and 'actual' number was used when determining the field review sample quantities. According to the standard, general inspection level two should be used and was applied as the default inspection level unless otherwise specified.

See Table 1: Program Sampling Methodology Summary for Large Volume Quantifiable Goal/Target Field Verifiable that summarizes the individual program targets, actuals, sampling methodologies/standards, and the IE sample size/target.

The IE conducted field inspections assessing compliance for work completion, work quality, and adherence to applicable protocols and procedures. The IE field sample targets are minimums, and larger sample numbers were obtained when possible. In addition, the IE has made data requests on these program targets to review, where applicable, standards, as-builts, and relevant QA/QC program documentation. This multi-faceted approach supports verification results extrapolated across sample populations.

The IE assessed the following five (5) items provided as part of SDG&E's 2022 WMP's list of initiatives under section **3.1.2 Large Volume Quantifiable Goal/Target - Field Verifiable**.

**Table 1: Program Sampling Methodology Summary for,
Large Volume Quantifiable Goal/Target – Field Verifiable**

Program	Units	Sections	Sampling Standard	SDG&E Target[1]/Actual[2]	IE Field Sample Target
Wireless Fault Indicators	EA	7.3.2.3 - WMP.449	ANSI/ASQ Z1.4	500/545	80
Expulsion fuse replacement	EA	7.3.3.7 - WMP.459	ANSI/ASQ Z1.4	227/231	32
Maintenance, repair, and replacement of connectors, including hotline clamps	EA	7.3.3.10 - WMP.464	ANSI/ASQ Z1.4	1,650/1,903	125
Lightning arrestor removal and replacement	EA	7.3.3.18.2 - WMP.550	ANSI/ASQ Z1.4	1,848/2,710	125
Avian Mitigation	EA	7.3.3.18.3 - WMP.972	ANSI/ASQ Z1.4	847[3]/973	80

[1] SDG&E Targets reported per SDG&E's 2020-2022 Wildfire Mitigation Plan (WMP) Update Dated February 11, 2022, from Attachment B Table 12.
[2] SDG&E Actuals reported per SDG&E's 2022 WMP Annual Report on Compliance (ARC) Dated April 3, 2023.
[3] Since SDG&E's WMP Attachment B Table 12 did not show 2022 target information for the Avian Mitigation Initiative, the Aviation Mitigation target is shown per SDG&E's WMP Table 5-2: List and Description of Program Targets, Last 5 Years.

Large Volume Quantifiable Goal/Target – Not Field Verifiable

Sampling methodology for SDG&E WMP IE assessment varied specifically to data set types. Data set types are associated with the specific initiative or initiative category.

Resulting from category data sets, Large Quantity Field Verifiable randomly selected sample sizes were based upon Mil-Std-105-E, an attribute sampling plan adopted in 1995 by the American National Standards Institute (ANSI) / American Society for Quality (ASQ) Z1.4-2008. "Sampling Procedures and Table for Inspection by Attributes" utilizing general inspection level II at a minimum.

Data Requests associated with Large Quantity Non-Field Verifiable and Qualitative initiatives utilized a modified random sampling. The reduced sampling resulted due to the available information type. A general review of field inspection documents and photos confirming completed work requires large downloads but is very clear in demonstrating conformance. Instead, SDG&E does not utilize this style of documentation; instead, SDG&E utilized an SAP

database that tracks unique identifiers associated with the specific infrastructure item and issues an electronic work order assignment to field crews.

This type of distribution of work results in data request responses that list work conducted in a spreadsheet format that includes unique item identifiers and mapping for each associated infrastructure item, such as a pole and each piece of equipment located on the pole. The items are shown as indicated within the spreadsheet of the work by providing a status indication in the appropriate column, "COMP" for completed and tracks when electronic work orders are generated, with a "Required Start" date, "Required End" date, and "Reference date." This information was presented to the IE team using an Excel formatted table demonstrating the above and the assessment method (e.g., "Patrol Inspection").

Due to timing and the limited, timely demonstration of conformance, the IE, in conjunction with approval from the Office of Energy Infrastructure and Safety (OEIS), reduced the random sample sizing to a minimum of 5% of each category's total annual quantity target for tier 2 & tier 3 only. To further simplify, when a determined quantity fell outside a set of 5, sampling was rounded up to the nearest value divisible by 5. There are instances when the minimum sample is exceeded due to applying the 5% separately to, Tier 2 and Tier 3 as demonstrated in the tables below and results in a sample of 10 as demonstrated. In most cases, this resulted in slightly larger numbers than determined by strictly utilizing 5% of tier 2 & tier 3 values.

The IE assessed the following 22 items provided as part of SDG&E's 2022 WMP's list of initiatives under section **3.1.3 Large Volume Quantifiable Goal/Target - Not Field Verifiable**.

Table 2: Program Sampling Methodology Summary,
Large Volume Quantifiable Goal/Target – Not Field Verifiable

Program	Units	Sections	Sampling Standard	SDG&E Target[3]/Actual[4]	IE Sample Standard Target/ Reduced Target
Generator Grant Programs	EA	7.3.3.11.1 - WMP.466	ANSI/ ASQ Z1.4	700/921	80/10
Generator Assistance Programs	EA	7.3.3.11.3 - WMP.467	ANSI/ ASQ Z1.4	1,250[5]/140	20/10
Standby Power Programs	EA	7.3.3.11.2 - WMP.468	ANSI/ ASQ Z1.4	412/376	50/10
Detailed inspections of distribution electric lines and equipment	EA	7.3.4.1 - WMP.478	ANSI/ ASQ Z1.4	18,177/17,935	315/20

Detailed inspections of transmission electric lines and equipment	EA	7.3.4.2 - WMP.479	ANSI/ ASQ Z1.4	2,087/2,323	125/10
Infrared inspections of distribution electric lines and equipment	EA	7.3.4.4 - WMP.481	ANSI/ ASQ Z1.4	12,000/12,264	315
Infrared inspections of transmission electric lines and equipment	EA	7.3.4.5 - WMP.482	ANSI/ ASQ Z1.4	6,154/6,259	200
Intrusive pole inspections	EA	7.3.4.6 - WMP.483	ANSI/ ASQ Z1.4	350/967	80/10
Patrol inspections of distribution electric lines and equipment	EA	7.3.4.11 - WMP.488	ANSI/ ASQ Z1.4	86,490/86,821	500/30
Patrol inspections of transmission electric lines and equipment	EA	7.3.4.12 - WMP.489	ANSI/ ASQ Z1.4	6,312/6,445	200/15
Substation inspections	EA	7.3.4.15 - WMP.492	ANSI/ ASQ Z1.4	330/397	50/10
Detailed inspections of vegetation around distribution electric lines and equipment	EA	7.3.5.2 - WMP.494	ANSI/ ASQ Z1.4	491,822/ 509,110	500
Fuel management and reduction of “slash” from vegetation management activities	EA	7.3.5.5 - WMP.497	ANSI/ ASQ Z1.4	500/500	50/5
LiDAR inspections of vegetation around distribution electric lines and equipment	Miles	7.3.5.7 - WMP.499	ANSI/ ASQ Z1.4	730/737.5	80
Other discretionary inspection of distribution electric lines and equipment, beyond inspections	EA	7.3.5.9 - WMP.501	ANSI/ ASQ Z1.4	12,500/10,488	315

mandated by rules and regulations					
Quality assurance / quality control of vegetation inspections	EA	7.3.5.13 - WMP.505	ANSI/ ASQ Z1.4	15%/17%[6]	500[4]
Removal and remediation of trees with strike potential to electric lines and equipment	EA	7.3.5.16 - WMP.508	ANSI/ ASQ Z1.4	106/105	20
Vegetation management to achieve clearances around electric lines and equipment	EA	7.3.5.20 - WMP.512	ANSI/ ASQ Z1.4	34,000/35,485	500
HFTD Tier 3 distribution pole inspections	EA	7.3.4.9.1 - WMP.551	ANSI/ ASQ Z1.4	12,268/12,263	315/5
Drone assessments of distribution infrastructure	EA	7.3.4.9.2 - WMP.552	ANSI/ ASQ Z1.4	22,000/30,044	315
Drone assessment of transmission	EA	7.3.4.10.1 - WMP.554	ANSI/ ASQ Z1.4	500/1,028	80
Additional Transmission Aerial 69kV Tier 3 Visual Inspection	EA	7.3.4.10.2 - WMP.555	ANSI/ ASQ Z1.4	1,654[5]/1,649	125

[3] SDG&E Targets reported per SDG&E's 2020-2022 Wildfire Mitigation Plan (WMP) Update Dated February 11, 2022, from Attachment B Table 12.

[4] SDG&E Actuals reported per SDG&E's 2022 WMP Annual Report on Compliance (ARC) Dated April 3, 2023.

[5] SDG&E Targets for these initiatives per SDG&E's WMP Table 5-2: List and Description of Program Targets, Last 5 Years.

[6] Per the WMP and ARC Reports, SDG&E reported the QA/QC of Vegetation Inspections by the percentage of reviews completed. Per DR010, SDG&E indicated that 86,447 reviews were completed and used for calculating the reported percentage. Per the sampling standard, the IE sampled 500 of the inspection reviews provided by SDG&E in DR010.

Sampling Distribution

The planning efforts incorporated measures such as sampling standards, crew sizes, production rates, schedule durations, individual initiative types, distribution throughout SDG&E's HFTD Tiers 2 and 3 areas, respective county populations, and inspected infrastructure densities. The IE conducted an independent site selection process to determine sample locations for field verifications taken from the populated data for each initiative. The IE also applied Random Sampling, which was targeted within HFTD Tiers 2 and 3 areas in all cases. Further, it targeted high-density areas to improve field inspection efficiency and maximize sampling quantities.

Sample sizes and their analysis were adequate for a general understanding of the reviewed items. The sample sizes over time allotments are not substantial to provide a definite accounting of item qualities or miles stated within SDG&E's 2022 WMP targets. However, as requested in the IE Scope of Work document, general and linear extrapolations and deductions were made from the sample size results, which were distributed as defined within this document. These included the actual installation or removal of the item (work completion), general work quality, adherence to protocols, standards, and procedures, and item location or confirming operational outputs.

See Figure 2: Overview of Areas Sampled, which provides a general overview of the locations sampled within Section 3.1.2 Large Volume Quantifiable Goal/Target - Field Verifiable.

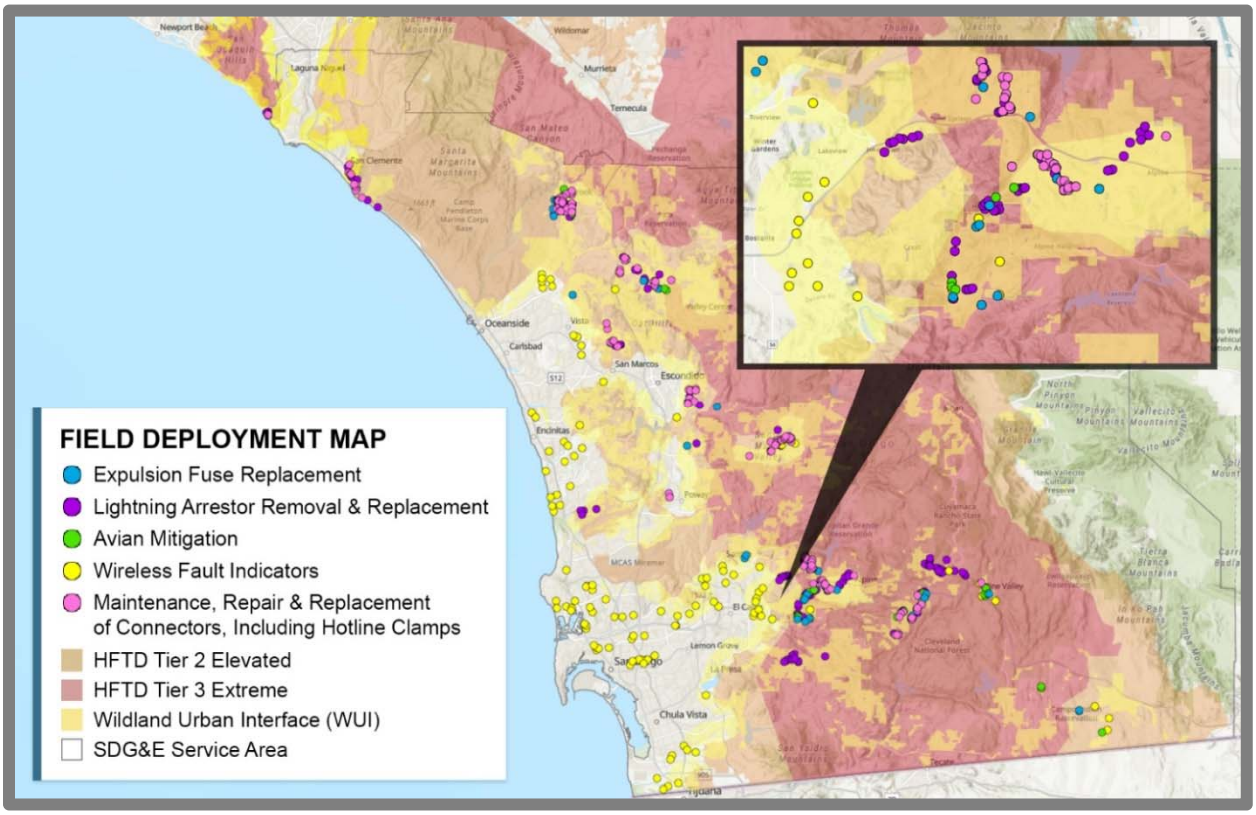


Figure 2: Overview of Areas Sampled

3.1.2 Large Volume Quantifiable Goal/Target – Field Verifiable

3.1.2.1 Review of Initiatives

The following information comprises detailed descriptions of the IE's assessments of SDG&E's various initiatives categorized as Large Volume Quantifiable Field Verifiable. The approach to assessing each initiative, along with the IE's findings, are described in this section.

7.3.2.3 - WMP.449 - Wireless Fault Indicators

System failures require precise location identification for power restoration. Measures undertaken during elevated wildfire risks, like disabling auto-reclosing and using fast protection settings to minimize fault-induced heat, can extend outage durations as these make locating faults and damaged assets more challenging.

To address this risk, SDG&E implemented the use of Wireless Fault Indicators (WFI). WFIs are cost-effective and help identify failure locations to expedite crew dispatch and power restoration. During heightened wildfire risk, all infrastructure is assessed for damage before power restoration. WFIs help focus on smaller circuit sections, enhancing response speed in case of ignition, increasing fault determination and correction chances, and potentially accelerating power restoration.

SDG&E committed to installing 500 fault indicators in 2022, per Table 1 of the 2022 WMP Quarterly Report dated February 1, 2023. Installations began with a focus on HFTD; the program began by targeting Tier 3 installations, followed by Tier 2, and then expanding into the non-HFTD Wildland Urban Interface (WUI) in 2022. SDG&E's goal to install 500 WFIs was met and exceeded by 45 units, installing 545 WFIs, per self-reporting.

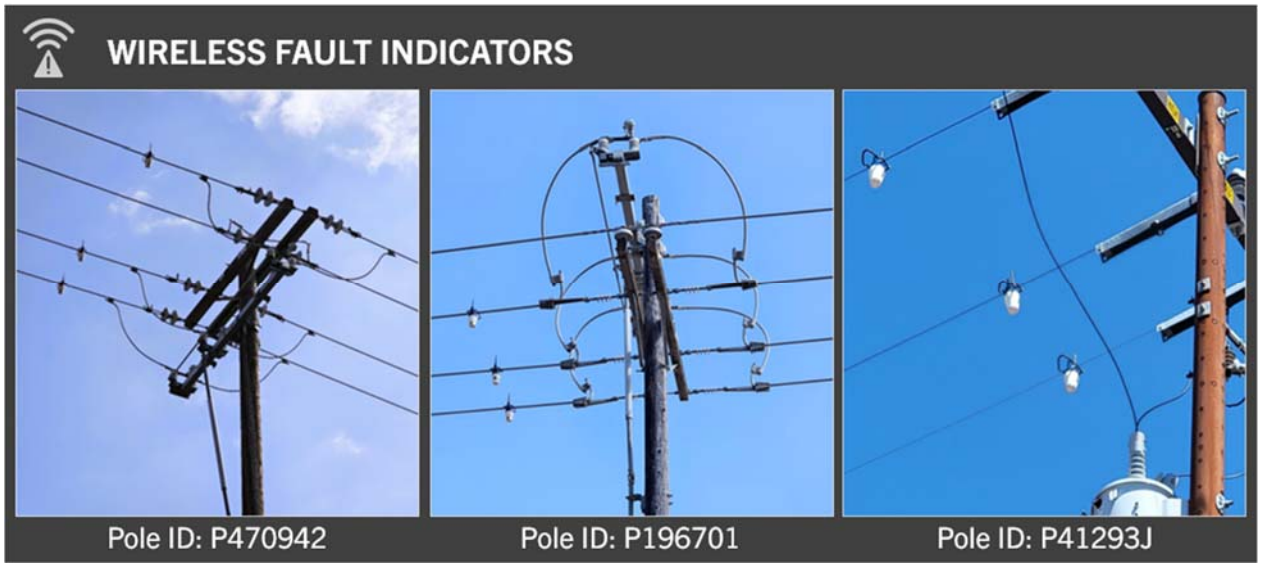


Figure 3: Example Wireless Fault Indicators Field Images

The IE field verified a sample of 315 WFI installation locations. The IE's target goal of 80 field-verified WFIs was exceeded by 235 for 315 sampled WFIs that complied with the initiative. Based on the IE's verification sample and results, it appears likely that SDG&E met its commitment to install 500 WFIs and exceeded 45 units for a total of 545 WFIs being installed, as reported.

Field assessments of the WFI installations were reviewed for workmanship quality and accuracy of information. No field issues or data discrepancies were identified during the field assessments.

7.3.3.7 - WMP.459 - Expulsion fuse replacement

Distribution system faults are typically managed by expulsion fuses, which protect the system's integrity by isolating the fault, limiting further damage. However, the energy discharge expelled into the atmosphere during this process can potentially ignite flammable vegetation.

To mitigate this risk, the Expulsion Fuse Replacement Program was initiated, replacing old fuses with new, more fire-safe ones approved by CAL FIRE. These new fuses significantly reduce the atmospheric discharge, thereby decreasing the likelihood of an ignition due to fuse operation.

Throughout the 2020 WMP cycle, the program is projected to reduce annual ignitions by 0.52. Preliminary studies indicate that the installation of CAL FIRE-approved fuses is 100% effective in reducing ignition risk. As SDG&E plans to replace all expulsion fuses within the High Fire Threat District (HFTD) by 2022, it is estimated that all ignitions from this cause will be effectively mitigated.

SDG&E committed to replacing 227 expulsion fuses in 2022, per Table 1 of the 2022 WMP Quarterly Report dated February 1, 2023. The Expulsion Fuse Replacement Program replaces fuses throughout the HFTD, prioritizing Tier 3 and then moving to Tier 2.SDG&E's goal to replace 227 expulsion fuses was met and exceeded by four units, replacing 231 expulsion fuses, per SDG&E's self-reporting.

The program definition of removal is defined in Section 7.3.3.7, Expulsion Fuse Replacement of the 2022 WMP. The IE field assessment team utilized the California Power Line Fire Prevention Guide, 2021 Edition, as their ruling document to validate Exempt equipment installations (Pages 81-87, Figures B-1 through B-21) vs. Non-Exempt (Pages 54-62, Figures NE-1 through NE-18).

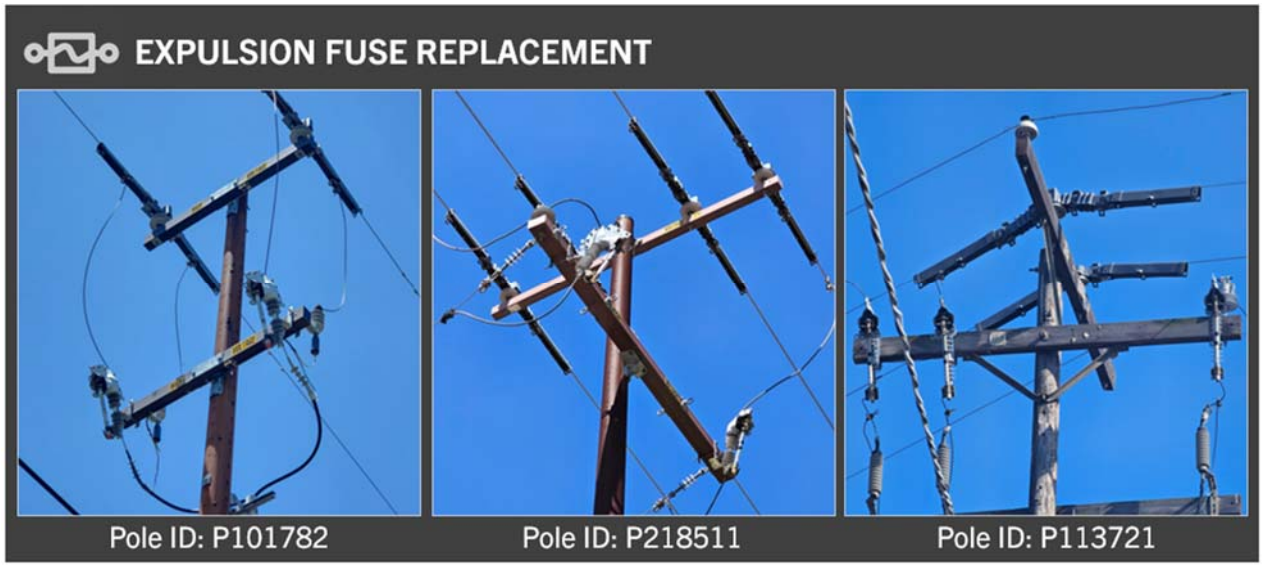


Figure 4: Example Expulsion Fuse Replacement Field Images

The IE verified a sample of 84 non-exempt expulsion fuse replacement locations to be replaced with exempt equipment. All 84 sampled locations complied with the initiative and completed the removal of non-exempt fuses. Based on the IE's verification sample and results, it appears likely that SDG&E met its stated commitment to remove and replace 227 non-exempt fuses and exceeded 4 units for a total of 231 non-exempt fuses being replaced, as reported.

Field assessments of the expulsion fuse removals were reviewed for workmanship quality and accuracy of information. One structure was found to have incorrect coordinates by approximately 153 feet northwest of provided coordinates – no other deficiencies were found; see the image below.

Figure 5: Incorrect Coordinates

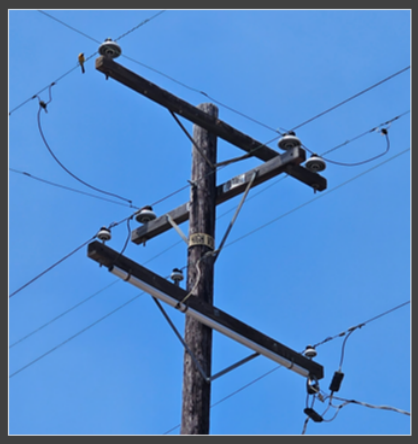
7.3.3.10 - WMP.464 - Maintenance, repair, and replacement of connectors, including hotline clamps

SDG&E committed to replacing 1,650 direct connected hotline clamps attached to primary conductor with compression connections & exempt hardware in 2022, per Table 1 of the 2022 WMP Quarterly Report dated February 1, 2023. SDG&E's goal to replace 1,650 direct connected hotline clamps was met and exceeded by 253 units, replacing 1,903 direct connected hotline clamps with exempt compression connectors and hardware, per SDG&E's self-reporting.

The program definition of removal is defined in Section 7.3.3.10 Maintenance, Repair, and Replacement of Connectors, including Hotline Clamps of the 2022 WMP. The IE field assessment team utilized the California Power Line Fire Prevention Guide, 2021 Edition, as their ruling document to validate Exempt equipment installations (Pages 101-108, Figures B-54 through B-74) vs. Non-Exempt (Pages 68-70, Figures NE-29 through NE-37).

MAINTENANCE, REPAIR & REPLACEMENT OF CONNECTORS, INCLUDING HOTLINE CLAMPS

Pole ID: P119949



Pole ID: P213000

Pole ID: P878413

MAINTENANCE, REPAIR & REPLACEMENT OF CONNECTORS, INCLUDING HOTLINE CLAMPS

Pole ID: P117056

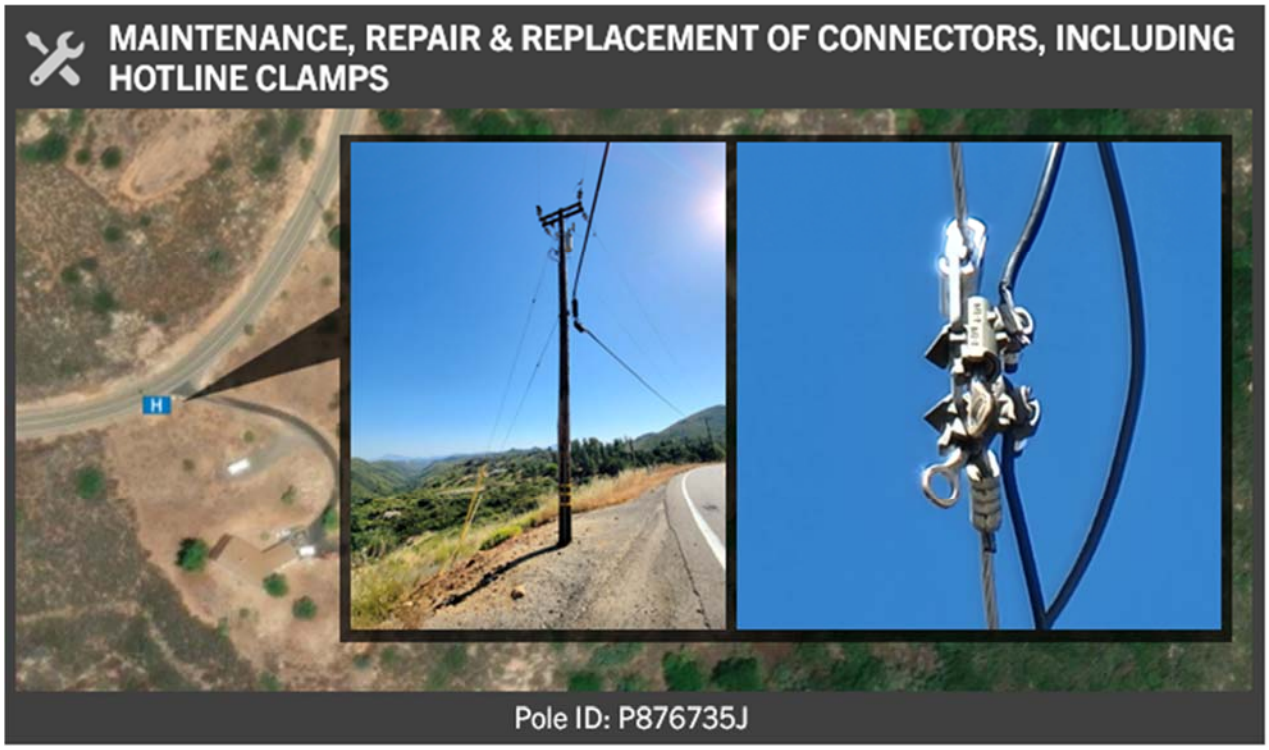


Figure 6: Example Hotline Clamps Field Images

The IE verified a sample of 196 direct connected hotline clamp replacement locations to be replaced with exempt equipment. All 196 sampled locations complied with the initiative and completed the removal and replacement of direct connected hotline clamps. Based on the IE's verification sample and results, it appears likely that SDG&E met its stated commitment to remove and replace 1,650 direct connected hotline clamps with exempt compression connectors and hardware, and exceeded 253 units for a total of 1,903 hotline clamps replaced, as reported.

Field assessments of the hotline clamp removals were reviewed for workmanship quality and accuracy of information. One structure was found to have incorrect coordinates by approximately 120 feet southwest of provided coordinates – no other deficiencies were found; see the image below.

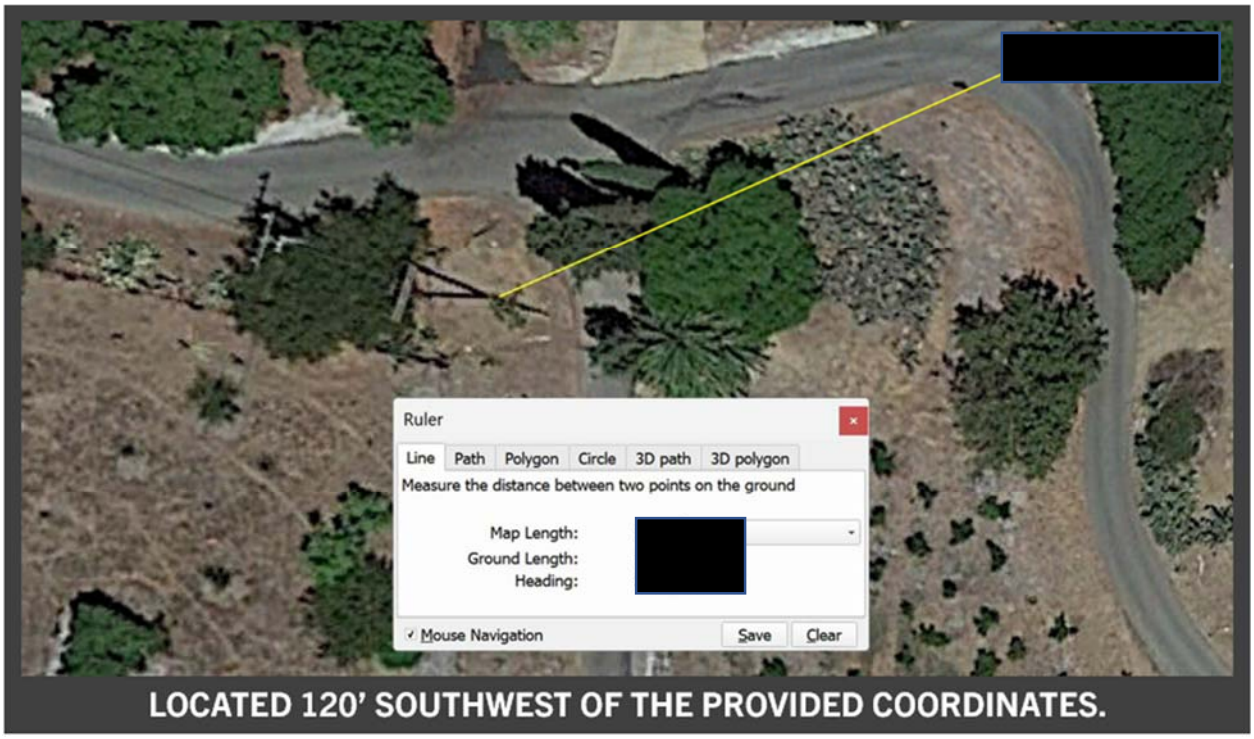


Figure 7: Incorrect Coordinates

Additionally, the IE team reviewed how SDG&E selects, executes, closes, and tracks the overall Replacement of Hotline Clamps initiative and various process flows, and found them to align with industry standards and WMP initiative goals.

7.3.3.18.2 - WMP.550 - Lightning arrestor removal and replacement

Lightning arrestors are electrical devices designed to lessen the impact of transient overvoltage on the electrical system. However, if overloaded, these units can potentially become ignition sources.

To mitigate this risk, a new type of lightning arrestor, approved by CAL FIRE, has been introduced. These arrestors have an external device (Spark Prevention Unit or SPU) that operates before overload, significantly lowering the chances of becoming an ignition source. As part of the Lightning Arrestor Replacement Program, these devices started to be installed in 2021, strategically within the High Fire Threat District (HFTD).

The risk reduction was estimated using a variety of data, including past events caused by lightning arrestors, their effectiveness, and the planned number of installations. Based on the technology's design, an estimated 80% reduction in ignitions is expected. As a result, by the end of 2022, a decrease of 0.024 and 0.005 ignitions in Tier 3 and Tier 2 HFTDs, respectively, is anticipated.

SDG&E committed to removing or replacing 1,848 lightning arrestors in 2022, per Table 1 of the 2022 WMP Quarterly Report dated February 1, 2023. SDG&E's goal to remove or replace 1,848 lightning arrestors was met and exceeded by 862 units, replacing 2,710 lightning arrestor removal or replacements, per SDG&E's self-reporting.

The program definition of removal is defined in Section 7.3.3.18.2 Lightning Arrestor Removal and Replacement of the 2022 WMP. The IE field assessment team utilized the California Power Line Fire Prevention Guide, 2021 Edition, as their ruling document to validate Exempt equipment installations (Pages 113-114, Figures B-86 through B-88) vs. Non-Exempt (Pages 63-67, Figures NE-19 through NE-28).

Figure 8: Example Lightning Arrestor Field Images

The IE verified a sample of 281 lightning arrestor locations to be replaced with exempt equipment. 279 sampled locations complied with the initiative and completed the removal of non-exempt equipment and replacement with exempt equipment. Based on the IE's verification sample and results, it appears likely that SDG&E met its stated commitment to remove and replace 1,848 non-exempt lightning arrestors and exceeded 862 units for a total of 2,710 non-exempt lightning arrestors being replaced, as reported.

Field assessments of the Lightning Arrestor removal & replacements were reviewed for workmanship quality and accuracy of information. The following issues or data discrepancies were identified during the field assessment:

- Two locations were identified as not having the removal and replacement work completed as reported by SDG&E. These two locations account for five of the 2,712 total lightning arrestor replacements, see below:

Figure 9: Non-Exempt Transformer Mounted Lightning Arrestor

ABOVE: P417678 has two (2) non-exempt Transformer Mounted Lightning Arrestors still installed. (Refer to Figure NE-21 on Page 64 and NE-25 on page 66 of the CAL FIRE 2021 Power Line Fire Prevention Field Manual, and Pages 20 & 23 of the 2022 CAL FIRE Powerline Equipment Identification Pocket Guide)

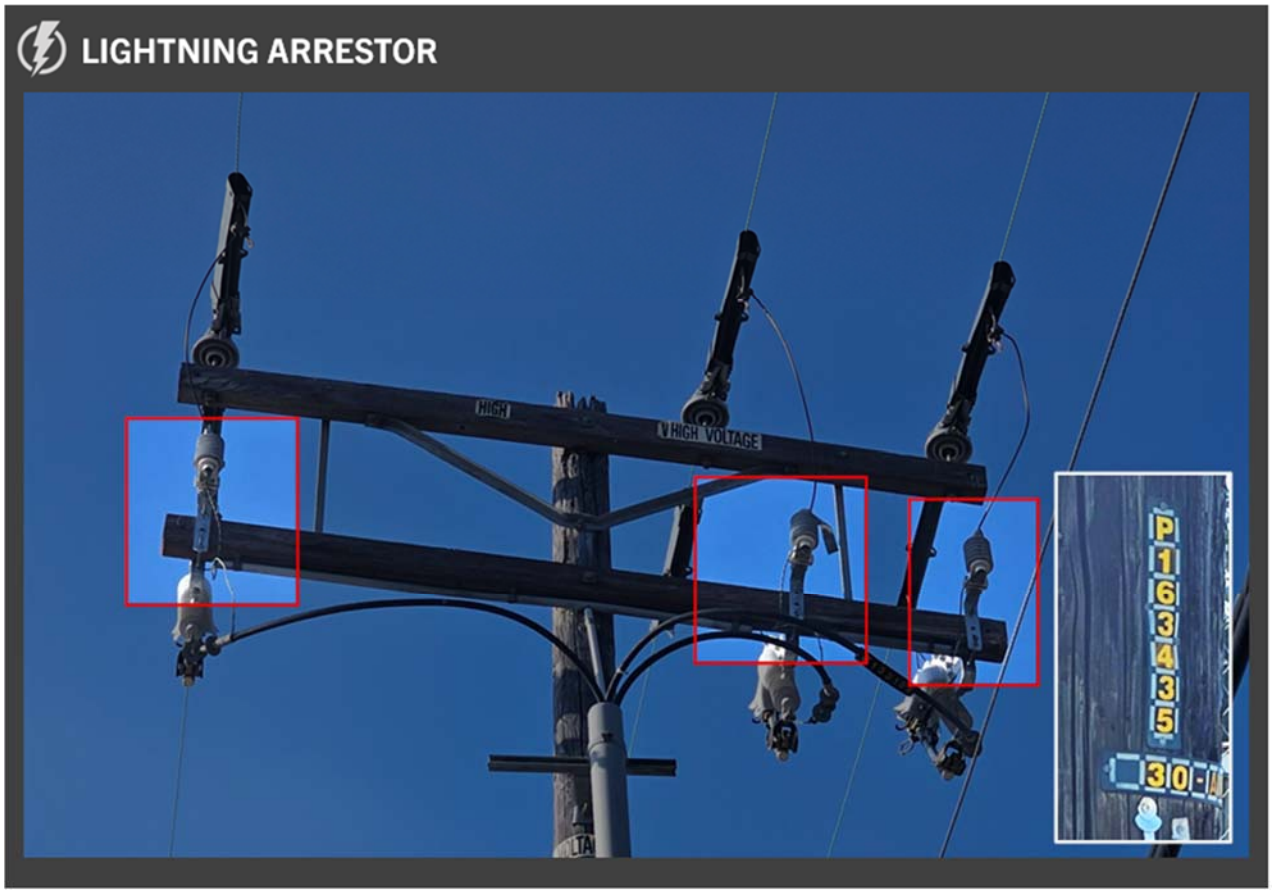


Figure 10: Non-Exempt Non-Porcelain Lightning Arrestors

ABOVE: P163435 has three (3) non-exempt Non-Porcelain Lightning Arrestors still installed. (Refer to Figures NE-23 & NE-24 on Page 65 of the CAL FIRE 2021 Power Line Fire Prevention Field Manual, and Pages 19 & 23 of the 2022 CAL FIRE Powerline Equipment Identification Pocket Guide).

- Four locations were identified as having incorrect coordinates but did have all work completed with no defect in workmanship or material types used, see below:

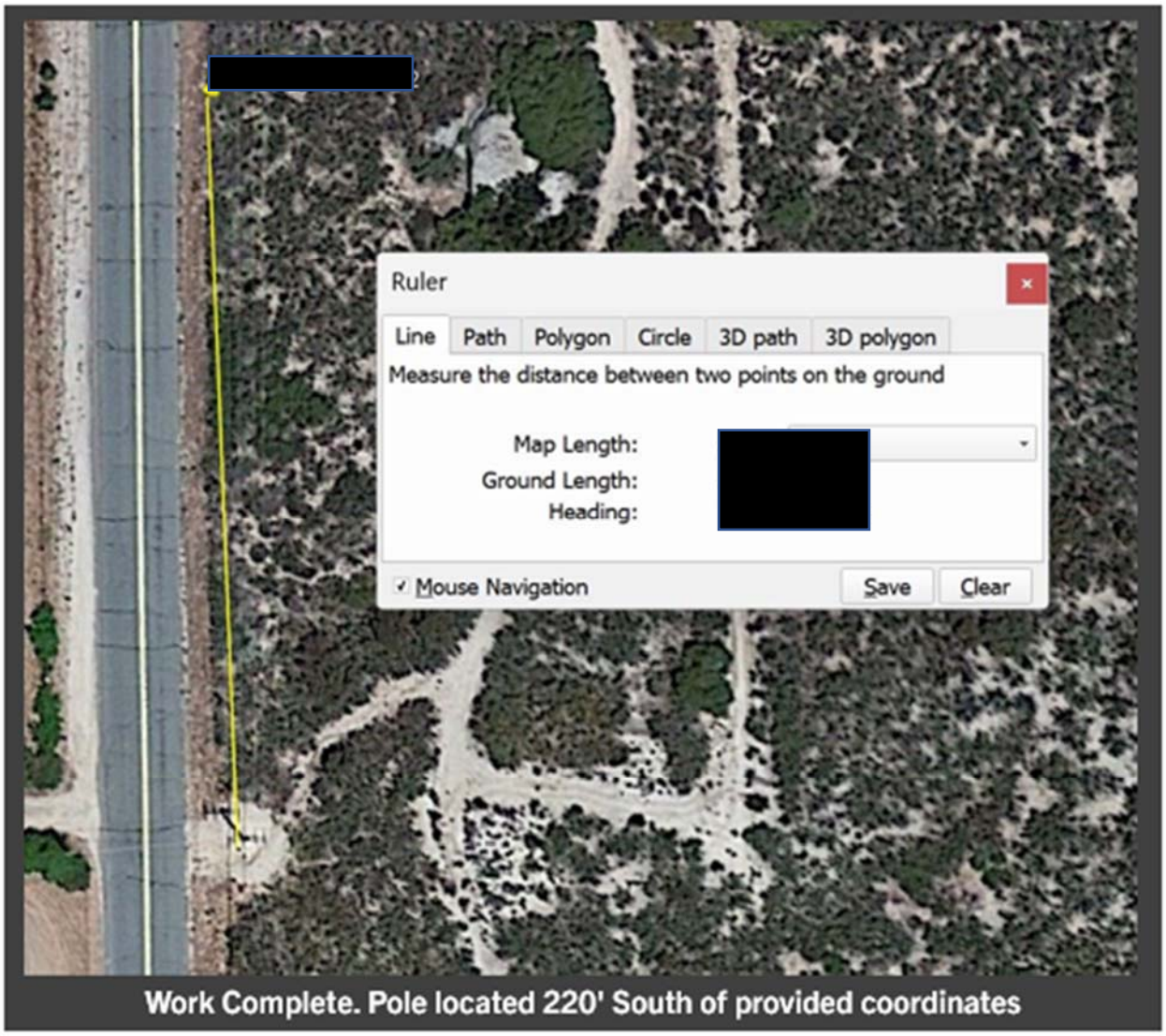


Figure 11: Example Structure at Incorrect Location

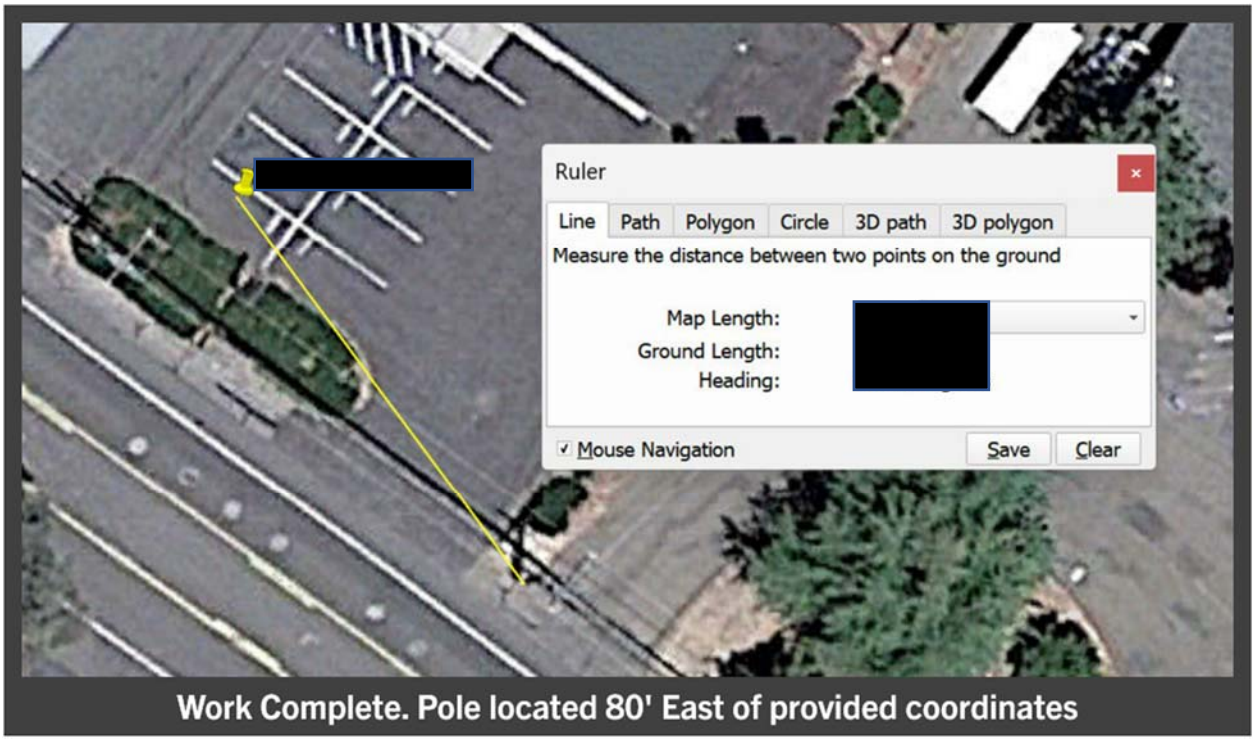


Figure 12: Example Structure at Incorrect Location

Figure 13: Example Structure at Incorrect Location

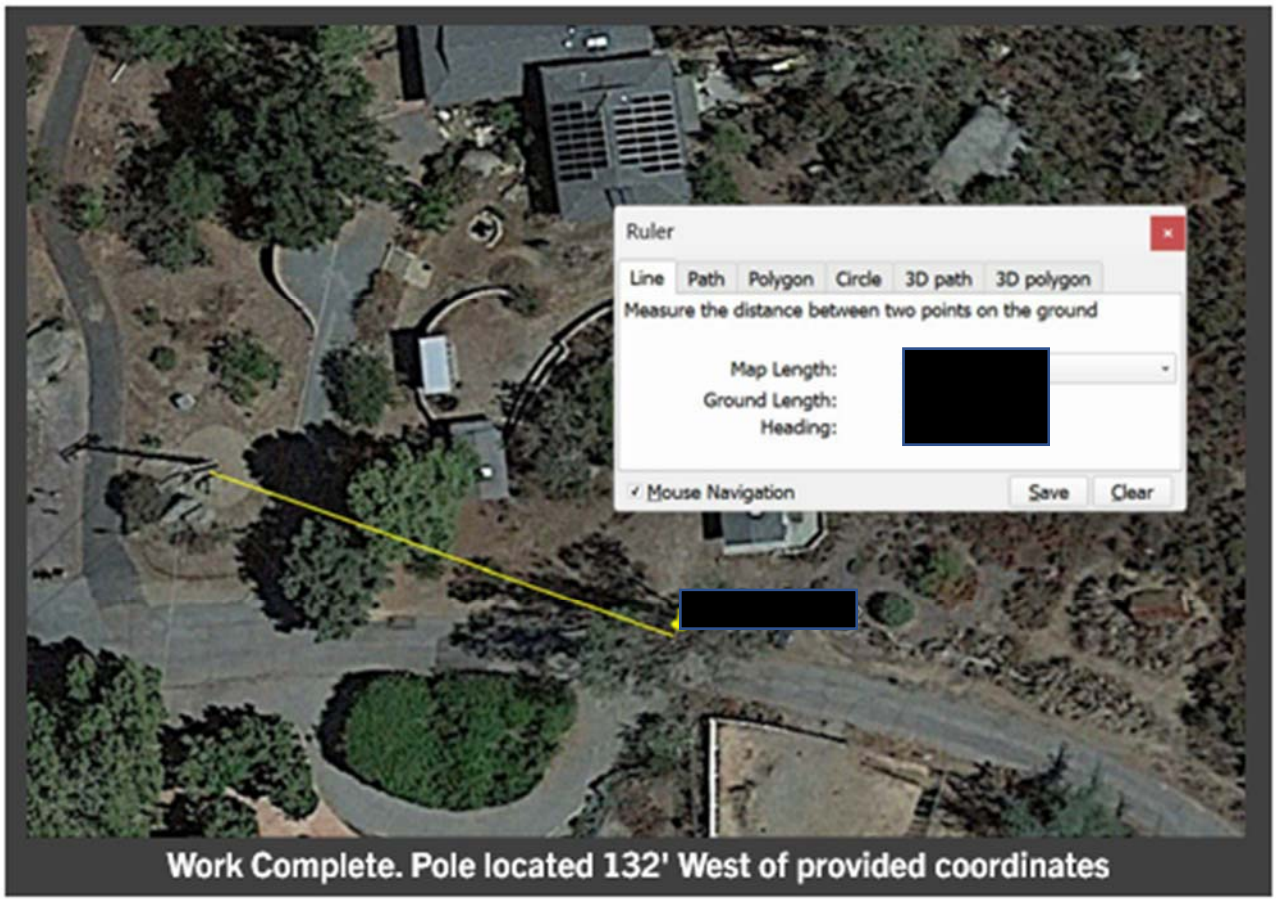


Figure 14: Example Structure at Incorrect Location

7.3.3.18.3 - WMP.972 - Avian Mitigation

Bird contact with electrical lines and equipment can create potential ignition sources and harm to avian species.

To address this, SDG&E has initiated an Avian Protection Program, which involves installing protective equipment on distribution poles to prevent bird electrocution and adhere to Federal and State laws. This initiative, new to the Wildfire Mitigation Plan for 2022, aims to reduce the risk of faults and wire-down events related to bird contact that could lead to fires and improve reliability.

The need for concurrent installation of avian protection with projects like clamp replacements, fuse replacements, and lightning arrester replacements became apparent due to increased work in the High Fire Threat District (HFTD). Without concurrent installation, the risk of bird contact persists, potentially necessitating future pole visits, causing additional outages or customer impacts.

Risk reduction was estimated using historical data and the planned number of Avian Protection installations. With the installation of avian covers, a 90% reduction in wildlife ignitions is anticipated, based on field observations in Tier 3 areas.

SDG&E committed to installing 847 units of avian protection equipment in 2022, per Table 1 of the 2022 WMP Quarterly Report dated February 1, 2023. SDG&E's goal to install 847 units of avian protection equipment was met and exceeded by 126 units, installing a total of units of 973 units of avian protection equipment, per SDG&E's self-reporting.

The program definition of installation is defined in Section 7.3.3.18.3 Avian Mitigation of the 2022 WMP. The IE field assessment team utilized the California Power Line Fire Prevention Guide, 2021 Edition, as their ruling document to validate equipment installations (Pages 123-127, Figures PLC-15 through PLC-26).

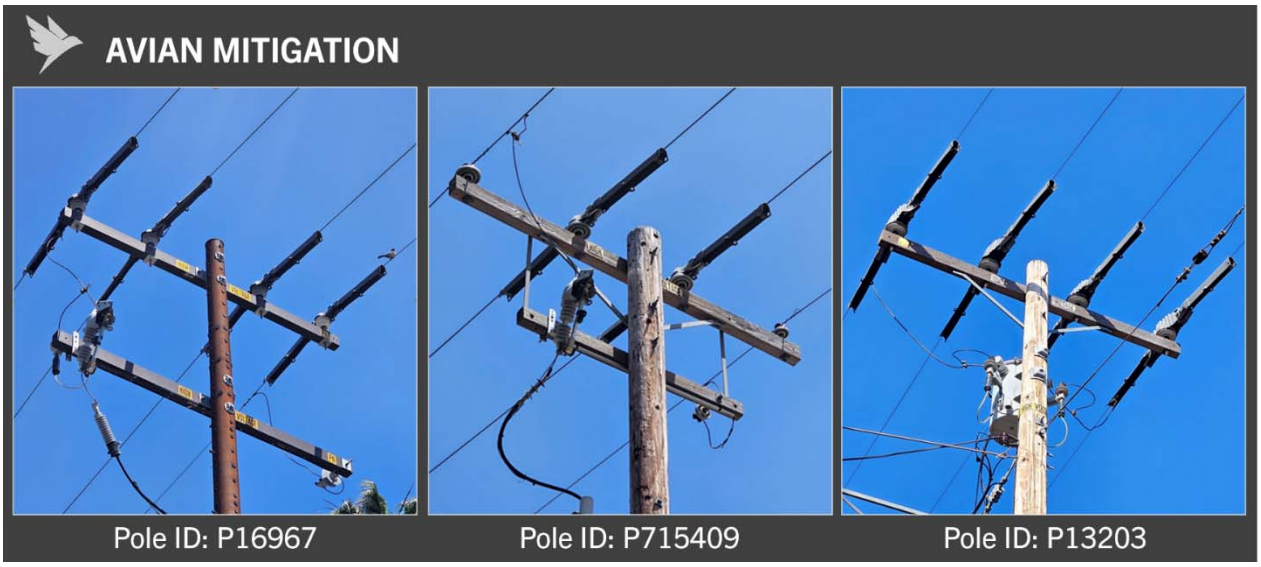


Figure 151: Example Avian Mitigation Field Images

The IE verified a sample of 141 avian protection equipment installation locations. 139 sampled locations complied with the initiative. Based on the IE's verification sample and results, it appears likely that SDG&E met its stated commitment to install 847 units of avian protection equipment and exceeded 126 units for a total of 973 units of avian protection equipment being installed, as reported.

Field assessments of the avian protection equipment installations were reviewed for workmanship quality and accuracy of information. The following issues or data discrepancies were identified during the field assessment:

Two locations did not have avian protection installed at the time of the field assessment. The IE field team was not able to locate any pieces of avian protection within a 2-span radius of the two structures that should have had avian protection installed.

Figure 16: Avian Protection Equipment not installed. LEFT: P1100993, RIGHT: P872843

Figure 17: Multiple structures with failing or missing Avian Protection components

- Nine structures had avian protection that had partially failed at the time of assessment with at least one segment of the guard missing or gone.

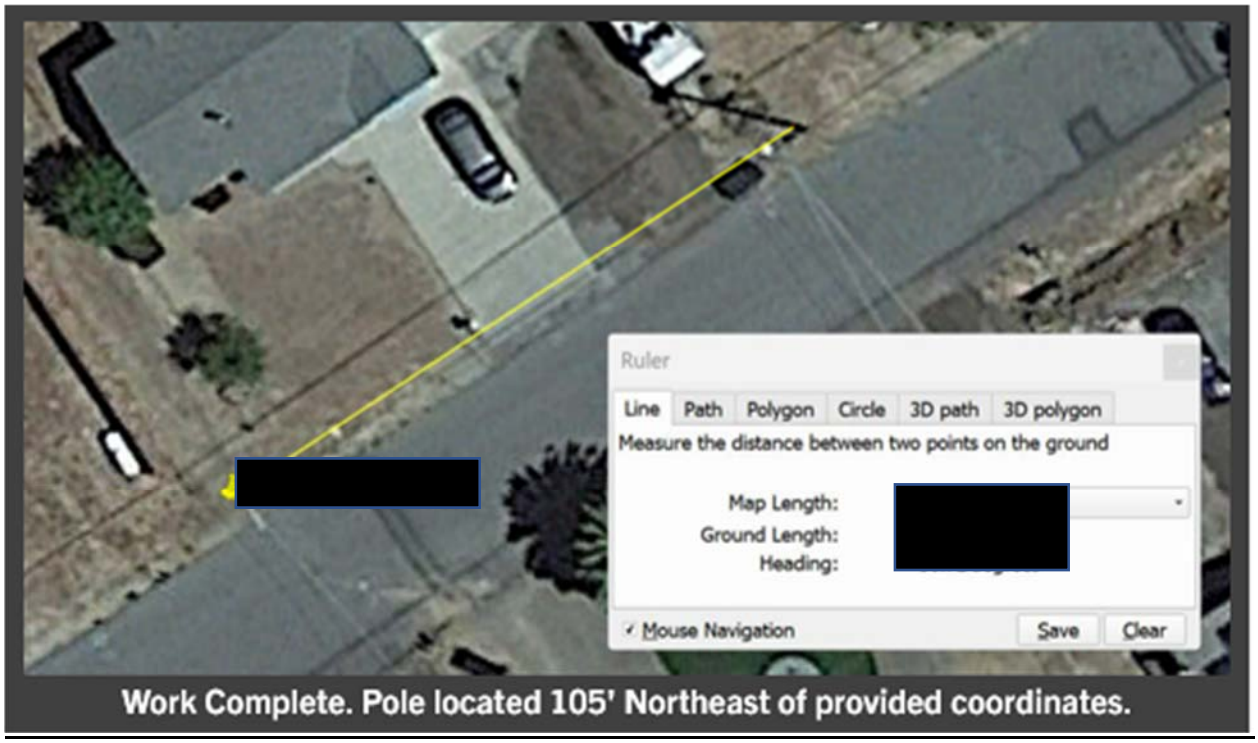


Figure 18: Incorrect Coordinates

- Two locations had inaccurate coordinates, but all work was completed to standard.

Summary of Initiative Findings

In addition to the Field Reviews conducted, the IE also reviewed numerous relevant documents, such as WMP-specific initiative life cycle documentation, inspection and audit records, fire rebuild design and guidance standards, design as-builts, maps, and various planning documents along with process flows encompassing how SDG&E selects, executes, closes and tracks specific initiatives. SDG&E provided the documentation in confidentiality in response to the IE's various data requests. Table 3 summarizes the IE's findings of SDG&E's program initiatives, as they were identified and reported as a part of this evaluation.

Table 3: Large Volume Quantifiable Goal/Target – Field Verifiable Summary Table

Program	Units	Sections	Sampling Methodology	SDG&E Target	SDG&E Actual	IE Field Sample Target	IE Field	Summary, Overview, and Review
Wireless Fault Indicators	EA	7.3.2.3 - WMP.449	ANSI/ASQ Z1.4	500	545	80	315	Goal met/ exceeded
Expulsion fuse replacement	EA	7.3.3.7 - WMP.459	ANSI/ASQ Z1.4	227	231	32	84	Goal met/ exceeded 1 Structure was found 153-feet from Provided Coordinates
Maintenance, repair, and replacement of connectors, including hotline clamps	EA	7.3.3.10 - WMP.464	ANSI/ASQ Z1.4	1,650	1,903	125	196	Goal met/ exceeded 1 Structure was found 120-feet from Provided Coordinates
Lightning arrestor removal and replacement	EA	7.3.3.18.2 - WMP.550	ANSI/ASQ Z1.4	1,848	2,710	125	281	Goal met/ exceeded 5/2,710 or (0.18%) Work Not Completed at Time of Field Visit. 4 Locations were found 80

								to 220-feet from Provided Coordinates
Avian Mitigation	EA	7.3.3.18.3 - WMP.972	ANSI/ASQ Z1.4	847	973	80	141	Goal met/ exceeded 2/973 or (0.21%) Work Not Completed at Time of Field Visit. 9/973 or (0.92%) Avian Protection Missing or Slid Down the Line at Time of Field Visit. 2 Locations were found 80 to 105-feet from Provided Coordinates

3.1.2.2 Trends and Themes

Below is an overview of patterns and themes relevant to the evaluation of Section 3.1.2's Large Volume Quantifiable Goal/Target - Field Verifiable obligations. This comprehensive evaluation includes task completion verification, workmanship quality assessment, adherence to utility protocols, and compliance with specific work standards. Equally important is the accuracy and reliability of the data, forming the foundation of the Independent Evaluator (IE) team's detailed review and responses to corroborative data requests. Additionally, the IE has integrated findings from past assessments to pinpoint recurring trends, providing insights beyond individual occurrences.

Quality of Data Received

The Independent Evaluator (IE) team found value in SDG&E's .gdb file format, which allowed for seamless integration with ArcGIS. This greatly enhanced our logistical planning and site analysis capabilities. The use of this standardized format streamlined our data collection efforts, promoting efficient scheduling. The embedded metadata and attributes enhanced our efficiency, particularly in time-sensitive endeavors. It's important to communicate the importance and advantages of working with geodatabases in projects of this nature.

Additionally, out of the 6,412 program units provided for sampling, only 8 locations, or approximately 0.125%, were outside the provided locations.

Commitment Quantity Targets and Workmanship

- All five Large Volume Quantifiable Goal/Target - Field Verifiable items met or exceeded their 2022 WMP target goals.
- No workmanship issues were found in the Wireless Fault Indicators, Expulsion Fuse Replacement, and Maintenance, Repair, and Replacement of Connectors, including Hotline Clamps initiatives after the IE team visited a combined 597 locations.
- Avian mitigation protection equipment was absent at two locations and partially failed at nine additional locations, resulting in 11 avian mitigation concerns out of 141 field location visits by the IE team.

3.1.3 Large Volume Quantifiable Goal/Target – Not Field Verifiable

3.1.3.1 Review of Initiatives

Pursuant to the Final IE Scope of Work for the Review of Compliance with 2022 WMP, SDG&E provided a complete list of all 2022 WMP activities classified as Large Volume Quantifiable Goal/Target - Not Field Verifiable completed in 2022. The IE's review and evaluation of these initiatives were completed through data request documentation from SDG&E completion of initiatives and publicly available documents, articles, and reports. These 2022 WMP activities identified within the Large Volume Not Field Verifiable list were reviewed and assessed within this section, and the findings are presented below for each initiative.

7.3.3.11.1 - WMP.466 - Generator Grant Programs

Section 7.3.3.11.1 (Generator Grant Program) of the WMP focuses on enhancing resiliency among the most vulnerable customers in the service territory and offers portable battery units with solar charging capacity. An initial data request was submitted for a spreadsheet listing the 921 units provided to customers. Once the IE reviewed the provided spreadsheet, a second

request was submitted requesting the reduced sampling size of ten (10) inspection documents/photos.

Based on the analysis performed of data collected in response, the following findings were observed:

- Five (5) Tier 2 Generator Grant Program forms submitted for review identifying workflow summary and outcome (completion date)
- Five (5) Tier 3 Generator Grant Program forms submitted for review identifying workflow summary and outcome (completion date)

Table 4: Generator Grant Programs – Summary

Description	2022 Target	2022 WMP ARC Report	DR003 Response	Summary
Generator Grant Programs	700 Generators	921 Generators	913 Generators	Goal met/ exceeded by 213 Generators

Although there is an eight (8) generator difference between the totals for the generator grant program as reported in the 2022 WMP ARC Report and the DR003 documentation, since both totals exceed the target, the IE confirms that SDG&E met the target for this initiative for 2022

7.3.3.11.2 - WMP.468 - Standby Power Programs

Section 7.3.3.11.2 (Standby Power Programs) of the WMP describes the process for providing a Standby Power Program for residents and communities living in the backcountry who are potentially isolated. There are two programs currently in place; Fixed Backup Power (FBP) and Mobile Home Park Resilience (MHRP).

An initial data request was submitted for a spreadsheet listing completed inspections for the 376 generators provided within the Standby Power Program. Once the IE reviewed the provided spreadsheet, a second request was submitted requesting the reduced sampling size of ten (10) generators. Based on the analysis performed of data collected in response, the following findings were observed:

- Generator Assistance Program documentation for five (5) generators in Tier 2
- Generator Assistance Program documentation for five (5) generators in Tier 3

In addition to the review of the sample data described above, the also IE reviewed the quarterly completion record data in geodatabase files provided by SDG&E.

Table 5: Standby Power Programs – Summary

Description	2022 Target	2022 WMP ARC Report	DR003 Response	Summary
Standby Power Programs	412 Generators	376 Generators	372 Generators	Goal met

As self-reported by SDG&E in the ARC report and as summarized above in Table 5, the IE confirmed SDG&E completed the activities relating to this initiative, and total number of generators is less than the WMP Target. Although there is a four (4) generator difference between the totals for the standby power programs reported in the 2022 WMP ARC report and the DR003 documentation, the total number of completed is shown to be within 90.2% of the overall target.

7.3.3.11.3 - WMP.467 - Generator Assistance Programs

Section 7.3.3.11.3 (Generator Assistance Program) of the WMP focuses on enhancing resiliency for all customers who reside in the HFTD and may be impacted by a PSPS event by offering rebates for portable generators. An initial data request was submitted for a spreadsheet listing the 140 rebates provided to customers. Once the IE reviewed the provided spreadsheet, a second request was submitted requesting the reduced sampling size of ten (10) inspection documents/photos.

Based on the analysis performed of data collected in response, the following findings were observed:

- Five (5) Tier 2 Standby Power Program forms submitted for review identifying workflow step summary and outcome (completion date)
- Five (5) Tier 3 Standby Power Program forms submitted for review identifying workflow step summary and outcome (completion date)

In addition to the review of the sample data described above, the IE also reviewed the quarterly completion record data in geodatabase files provided by SDG&E.

Table 6: Generator Assistance Programs – Summary

Description	2022 Target	2022 WMP ARC Report	DR003 Response	Summary
Generator Assistance Programs	1,250 Generators	140 Generators	138 Generators	Goal met

As self-reported by SDG&E in the ARC report and as summarized above in Table 6, the IE confirmed SDG&E completed the activities relating to this initiative, and total number of generators is less than the WMP Target. Although there is a two (2) generator difference between the totals for the generator assistance programs reported in the 2022 WMP ARC report and the DR003 documentation, the total number of completed is shown to be 11.0% of the overall target. As noted by SDG&E in the ARC report "favorable weather reduced anticipation of PSPS resulting in lower-than-expected customer participation."

7.3.4.1 - WMP.478 - Detailed inspections of distribution electric lines and equipment

Section 7.3.4.1 (Detailed Inspections of Distribution Electric Lines and Equipment) of the WMP describes the inspection process of SDG&E's electric distribution system. Performing inspections helps mitigate wildfire risk as well as provides information about the condition of their distribution system.

An initial data request was submitted for a spreadsheet listing completed inspections for the 17,935 detailed inspection of distribution electric lines and equipment. Once the IE reviewed the provided spreadsheet, a second request was submitted requesting the reduced sampling size of twenty (20) inspection documents and photos.

Based on the analysis performed of data, in the form of a spreadsheet, the following findings were observed:

- Fifteen (15) Tier 3 locations identifying location, notification number, description of pole, equipment ID and inspection date.
- Six (6) Tier 2 locations identifying location, notification number, description of pole, equipment ID and inspection date.

In addition to the review of the sample data described above, the IE also reviewed the quarterly completion record data in geodatabase files provided by SDG&E.

Table 7: Detailed Inspections – Distribution Summary

Description	2022 Target	2022 WMP ARC Report	DR002 Response	Summary
Detailed inspections of distribution electric lines and equipment	18,177 Inspections	17,935 Inspections	17,960 Inspections	Goal met

As self-reported by SDG&E in the ARC report and as summarized above in Table 7, the IE confirmed SDG&E completed the activities relating to this initiative, and although the total number of inspections is less than the WMP Target. Although there is a 25 inspection difference between the totals for detailed inspections of distribution electric lines and equipment as reported in the 2022 WMP ARC Report and the DR002 documentation, the total number of completed is shown to be within 98.8% of the overall target.

7.3.4.2 - WMP.479 - Detailed inspections of transmission electric lines and equipment

Section 7.3.4.2 (Detailed Inspections of Transmission Electric Lines and Equipment) of the WMP describes the implementation of a comprehensive, multi-faceted transmission inspection and patrol program consisting of visual patrols, infrared patrols, detailed patrols. An initial data request was submitted for a spreadsheet listing completed inspections for the 2,323 detailed inspection of transmission electric lines and equipment. Once the IE reviewed the provided spreadsheet, a second request was submitted requesting the reduced sampling size of ten (10) inspection documents/photos.

Based on the analysis performed of data collected in response, the following findings were observed:

- Ten (10) Transmission Construction Maintenance "Structure Patrol" forms were submitted. All documents provided demonstrated compliance in completing the inspection. No photos were attached to compare/contrast between maintenance form and photos.

In addition to the review of the sample data described above, the IE also reviewed the quarterly completion record data in geodatabase files provided by SDG&E.

Table 8: Detailed Inspections – Transmission Summary

Description	2022 Target	2022 WMP ARC Report	DR002 Response	Summary
Detailed inspections of transmission electric lines and equipment	2,087 Inspections	2,323 Inspections	2,122 Inspections	Goal met/ Exceeded by 35 Inspections

Although there is a 201 inspection difference between the totals for the detailed inspections of transmission electric lines and equipment as reported in the 2022 WMP ARC Report and the DR002 documentation, since both totals exceed the target, the IE confirms that SDG&E met the target for this initiative for 2022

7.3.4.4 - WMP.481 - Infrared inspections of distribution electric lines and equipment

As described within the 2022 WMP, SDG&E's target for this initiative was to complete 12,000 infrared inspections of distribution electric lines and equipment. Per SDG&E's 2022 WMP Annual Report on Compliance (ARC) dated April 3, 2023, SDG&E reported that 12,264 infrared inspections were completed for distribution structures and equipment.

SDG&E provided an initial collection of data including GIS files identifying 10,746 infrared inspections of distributions electric lines and equipment. In response to Data Request DR010, SDG&E clarified that the difference in completions between the GIS files and the reported quantities were due to the inclusion of non-HFTD inspections in the reported quantities that were not included in the GIS files. Additionally, SDG&E confirmed that the information provided in the GIS files is the record of inspection per DR010. The IE reviewed a sample of the record data for 315 infrared inspections of distribution electric lines and equipment. No issues were identified in the review of the data for the infrared inspections for distribution electric lines and equipment.

Table 9: Infrared inspections – Distribution Summary

Description	2022 Target	2022 WMP ARC Report	DR010 Response	Summary
Infrared inspections of distribution electric lines and equipment	12,000 Inspections	12,264 Inspections	12,264 Inspections	Goal met/ exceeded by 264 inspections

7.3.4.5 - WMP.482 - Infrared inspections of transmission electric lines and equipment

As described within the 2022 WMP, SDG&E's target for this initiative was to complete 6,154 infrared inspections of transmission electric lines and equipment. SDG&E's 2022 WMP Annual Report on Compliance (ARC) dated April 3, 2023, SDG&E reported that 6,259 infrared inspections were completed for transmission structures and equipment.

SDG&E provided an initial collection of data including GIS files identifying 6,233 infrared inspections of transmission electric lines and equipment summarized below in Table 10. In response to Data Request DR010, SDG&E confirmed that the information provided in the GIS files is the record of inspection. The IE reviewed a sample of the record data for 200 infrared inspections of transmission electric lines and equipment. No issues were identified in the review of the data for the infrared inspections for distribution electric lines and equipment.

Table 10: Infrared inspections – Transmission Summary

Description	2022 Target	2022 WMP ARC Report	DR010 Response	Summary
Infrared Inspections of transmission electric lines and equipment	6,154 Inspections	6,259 Inspections	6,233 Inspections	Goal met/ exceeded by 79 inspections

Although there is a 26-inspection difference between the totals for infrared inspections completed as reported in the 2022 WMP ARC Report and the DR010 documentation provided in the GIS files, since both totals exceed the target, the IE confirms that SDG&E met the target for this initiative for 2022.

7.3.4.6 - WMP.483 - Intrusive pole inspections

Section 7.3.4.6 (Intrusive Pole Inspections) of the WMP describes the inspection process of the Wood Pole Intrusive Program that inspects poles within ten (10) years and all poles that have had an intrusive pole inspection to be re-inspected on a 20-year cycle.

An initial data request was submitted for a spreadsheet listing completed inspections for the 967 intrusive pole inspections. Once the IE reviewed the provided spreadsheet, a second request was submitted requesting the reduced sampling size of ten (10) inspection documents and photos. Based on the analysis performed of data, in the form of a spreadsheet, the following findings were observed:

- Five (5) Tier 3 locations identifying location, notification number, description of pole, equipment ID and inspection date.
- Five (5) Tier 2 locations identifying location, notification number, description of pole, equipment ID and inspection date.

In addition to the review of the sample data described above, the IE also reviewed the quarterly completion record data in geodatabase files provided by SDG&E.

Table 11: Intrusive Pole Inspections – Summary

Description	2022 Target	2022 WMP ARC Report	DR002 Response	Summary
Intrusive pole inspections	350 Inspections	967 Inspections	1,003 Inspections	Goal met/ exceeded by 653 inspections

Although there is a 36 inspection difference between the totals for the intrusive pole inspections as reported in the 2022 WMP ARC Report and the DR002 documentation, since both totals exceed the target, the IE confirms that SDG&E met the target for this initiative for 2022.

7.3.4.11 - WMP.488 - Patrol inspections of distribution electric lines and equipment

Section 7.3.4.11 (Patrol Inspections of Distribution Electric Lines and Equipment) of the WMP describes the annual patrol inspection process for all areas located in SDG&E's service territory. An initial data request was submitted for a spreadsheet listing completed inspections for the 86,821 patrol inspections. Once the IE reviewed the provided spreadsheet, a second request was submitted requesting the reduced sampling size of thirty (30) inspection documents and photos. Based on the analysis performed of data, in the form of a spreadsheet, the following findings were observed:

- Twenty (20) Tier 3 locations identifying location, notification number, description of pole, equipment ID and inspection date.
- Ten (10) Tier 2 locations identifying location, notification number, description of pole, equipment ID and inspection date.

In addition to the review of the sample data described above, the IE also reviewed the quarterly completion record data in geodatabase files provided by SDG&E.

Table 12: Patrol Inspections – Distribution Summary

Description	2022 Target	2022 WMP ARC Report	DR002 Response	Summary
Patrol inspections of distribution electric lines and equipment	86,490 Inspections	86,821 Inspections	87,533 Inspections	Goal met/ exceeded by 1,043 inspections

Although there is a 712 inspection difference between the totals for the patrol inspections of distribution electric lines and equipment as reported in the 2022 WMP ARC Report and the DR002 documentation, since both totals exceed the target, the IE confirms that SDG&E met the target for this initiative for 2022.

7.3.4.12 - WMP.489 - Patrol inspections of transmission electric lines and equipment

Section 7.3.4.12 (Patrol Inspections of Transmission Electric Lines and Equipment) of the WMP describes the process of conducting visual patrols by helicopter on all overhead tie lines within the HFTD. They provide an overview of the structure and components to assess for any hazardous issues. An initial data request was submitted for a spreadsheet listing completed inspections for the 6,445 patrol inspections. Once the IE reviewed the provided spreadsheet, a

second request was submitted requesting the reduced sampling size of fifteen (15) inspection documents/photos.

Based on the analysis performed of data collected in response, the following findings were observed:

- A Transmission Construction Maintenance "Maintenance Review Patrol Schedule" was provided identifying two (2) Tie Lines. No photos were attached to compare/contrast between maintenance form and photos.

In addition to the review of the sample data described above, the IE also reviewed the quarterly completion record data in geodatabase files provided by SDG&E.

Table 13: Patrol Inspections – Transmission Summary

Description	2022 Target	2022 WMP ARC Report	DR002 Response	Summary
Patrol inspections of transmission electric lines and equipment	6,312 Inspections	6,445 Inspections	6,445 Inspections	Goal met/ exceeded by 133 inspections

7.3.4.15 - WMP.492 - Substation inspections

Section 7.3.4.15 (Substation Inspections) of the WMP describes the detailed monthly or bimonthly inspection of substations to identify substation equipment damage in order to make repairs or replacement before a failure occurs. An initial data request was submitted for a spreadsheet listing the completed 397 substation inspections. Once the IE reviewed the provided spreadsheet, a second request was submitted requesting the reduced sampling size of ten (10) inspection documents/photos.

Based on the analysis performed of data collected in response, the following findings were observed:

- Ten (10) Maintenance Order Data Sheets were submitted. All documents provided demonstrated compliance in completing the inspection. No photos were attached to compare/contrast between maintenance form and photos.

In addition to the review of the sample data described above, the IE also reviewed the quarterly completion record data in geodatabase files provided by SDG&E.

Table 14: Substation Inspections –Summary

Description	2022 Target	2022 WMP ARC Report	DR002 Response	Summary
Substation inspections	330 Inspections	397 Inspections	395 Inspections	Goal met/ exceeded by 65 inspections

Although there is a two (2) inspection difference between the totals for the substation inspections as reported in the 2022 WMP ARC Report and the DR002 documentation, since both totals exceed the target, the IE confirms that SDG&E met the target for this initiative for 2022.

7.3.5.2 - WMP.494 - Detailed inspections of vegetation around distribution electric lines and equipment

As described within the 2022 WMP, SDG&E's 2022 WMP target was to complete 491,822 detailed inspections of vegetation around distribution electric lines and equipment. Per SDG&E's 2022 WMP Annual Report on Compliance (ARC) dated April 3, 2023, SDG&E reported the completion of 509,110 detailed inspections of vegetation around distribution electric lines and equipment.

SDG&E provided an initial collection of data including GIS files identifying 397,739 locations for completed detailed inspections of vegetation around distribution electric lines and equipment. The IE conducted a SME interview Per Appendix D Item No. 9 where SDG&E clarified that individual locations account for multiple inspections for this initiative. Following the procedure for calculation the IE confirmed that the 397,739 locations represent 516,187 inspections summarized below in Table 15. In response to Data Request DR010, SDG&E confirmed that the information provided in the GIS files is the record of inspection. The IE reviewed a sample of the record data for 500 detailed inspections of vegetation around distribution electric lines and equipment. No issues were identified in the review of the data for the infrared inspections for distribution electric lines and equipment.

Table 15: Detailed Vegetation Inspections – Distribution Summary

Description	2022 Target	2022 WMP ARC Report	DR010 Response	Summary
Detailed inspections of vegetation around distribution electric lines and equipment	491,822 Inspections	509,110 Inspections	516,187 Inspections	Goal Met/Exceeded by 24,365 Inspections

Additionally, SDG&E provided the following Vegetation Management QA/QC process, as shown in Figure 19 per DR010, that SDG&E implements for reviewing and evaluating the vegetation inspections completed within this initiative. The IE has also reviewed the QA/QC documentation for this initiative, as further described within Section 3.3 Verification of QA/QC Programs.

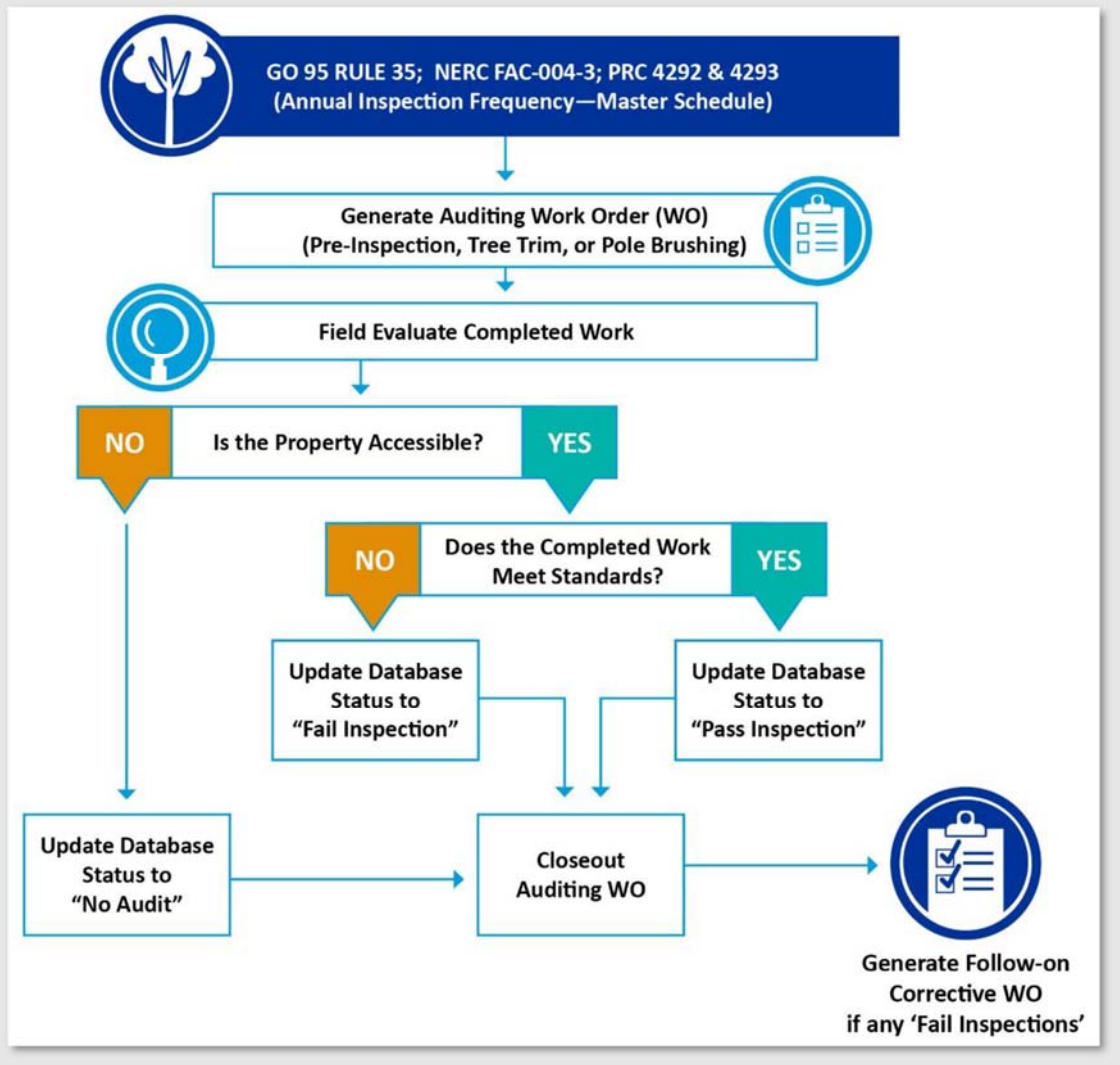


Figure 19: DR010 Vegetation Management QA/QC Process

7.3.5.5 - WMP.497 - Fuel management and reduction of "slash" from vegetation management activities

Section 7.3.5.5 (Fuel Management and Reduction of "Slash" from Vegetation Management Activities) of the WMP describes three activities utilized by SDG&E. They include fuels treatment, vegetation abatement and fuels reduction grants. An initial data request was submitted for a spreadsheet listing completed "slash" projects. Once the IE reviewed the provided spreadsheet, a second request was submitted requesting documentation for five (5) acres treated.

Based on the analysis performed of data collected in response, the following findings were observed:

- Five (5) structures cleared by weeding along with photo documentation.

In addition to the review of the sample data described above, the IE also reviewed the quarterly completion record data in geodatabase files provided by SDG&E.

Table 16: Vegetation Management – Slash Reduction Summary

Description	2022 Target	2022 WMP ARC Report	DR002 Response	Summary
Fuel management and reduction of "slash" from vegetation management activities	500 Poles Cleared	500 Poles Cleared	500 Poles Cleared	Goal met

7.3.5.7 - WMP.499 - LiDAR inspections of vegetation around distribution electric lines and equipment

As described within the 2022 WMP, SDG&E's 2022 WMP target was to complete 730 circuit line miles of LiDAR inspections of vegetation around distribution electric lines and equipment. Per SDG&E's 2022 WMP Annual Report on Compliance (ARC) dated April 3, 2023, SDG&E reported the completion of 737.5 circuit line miles of LiDAR inspections of vegetation around distribution electric lines and equipment.

SDG&E provided an initial collection of data including GIS files identifying 737.5 circuit line miles of completed LiDAR inspections of vegetation around distribution electric lines and equipment summarized below in Table 17. In response to Data Request DR010, SDG&E confirmed that the information provided in the GIS files is the record of inspection. The IE reviewed a sample of the record data for 163.6 circuit line miles of LiDAR inspections of vegetation around distribution electric lines and equipment which exceeded the IE's targeted sample of 80 circuit miles. No issues were identified in the review of the data for the LiDAR inspections of vegetation around distribution electric lines and equipment.

Table 17: LiDAR Vegetation Inspections – Distribution Summary

Description	2022 Target	2022 WMP ARC Report	DR010 Response	Summary
LiDAR inspections of vegetation around distribution electric lines and equipment	730 Circuit Line Miles	737.5 Circuit Line Miles	737.5 Circuit Line Miles	Goal Met/Exceeded by 7.5 Circuit Line Miles

7.3.5.9 - WMP.501 - Other discretionary inspection of vegetation around distribution electric lines and equipment, beyond inspections mandated by rules and regulations

As described within the 2022 WMP, SDG&E's 2022 WMP target for this initiative was to complete 12,000 discretionary inspections of vegetation around distribution electric lines and equipment, beyond inspections mandated by rules and regulations. Per SDG&E's 2022 WMP Annual Report on Compliance (ARC) Dated April 3, 2023, SDG&E reported the completion of 10,488 (83.90% of target) discretionary inspections of vegetation around distribution electric lines and equipment.

SDG&E provided an initial collection of data including GIS files identifying 8,237 locations for completed discretionary inspection of vegetation around distribution electric lines and equipment. The IE conducted a SME interview Per Appendix D Item No. 10 where SDG&E clarified that individual locations account for multiple inspections for this initiative. Following the procedure for calculation, the IE confirmed that the 8,237 locations represent 10,515 inspections summarized below in Table 18. In response to Data Request DR010, SDG&E confirmed that the information provided in the GIS files is the record of inspection. The IE reviewed a sample of the record data for 315 locations representing 413 inspections. No issues were identified in the review of the data for the discretionary inspections of vegetation around distribution electric lines and equipment.

Table 18: Discretionary Vegetation Inspections – Distribution Summary

Description	2022 Target	2022 WMP ARC Report	DR010 Response	Summary
Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations	12,500 Trees	10,488 Trees	10,515 Trees	Goal Not Met

As summarized in Table 18 above, although the data provided in the response to DR010 exceeds actuals reported in the 2022 WMP ARC report by 27 trees, SDG&E did not meet the target noted

in the 2022 WMP and as self-reported by SDG&E in the 2022 ARC Report. Per the 2022 ARC Report, SDG&E describes the "high degree of variability in forecasting the number of trees that may require enhanced trimming," and SDG&E additional notes, "Using current trends, a more likely accurate forecast number of trees that will require enhanced clearance annually is between 10,000 and 11,000. SDG&E will continue to review its methodology to derive an appropriate annual target for this initiative."

7.3.5.13 - WMP.505 - Quality assurance / quality control of vegetation inspections

As described within the 2022 WMP, SDG&E's 2022 WMP target for this initiative was to complete a minimum random sampling of 15 percent of completed vegetation management inspections to determine compliance with scoping requirements. Per SDG&E's 2022 WMP Annual Report on Compliance (ARC) dated April 3, 2023, SDG&E reported that QA/QC audits were completed for 17% of vegetation management inspections. In response to Data Request DR010, SDG&E provided a list of 518,535 vegetation management inspections and 86,447 associated QA/QC reviews representing a sampling of 16.7% of completed vegetation management inspections summarized below in Table 19. The IE reviewed a sample of the records provided for QA/QC audits for 502 inspections of vegetation management which exceeded the IE's targeted sample of 500 inspections. No issues were identified in the review of the data.

Table 19: Vegetation Management – Quality Assurance and Quality Control Summary

Description	2022 Target	2022 WMP ARC Report	DR010 Response	Summary
Quality assurance / quality control of vegetation inspections	15%	17%	16.7%	Goal Met/Exceeded

7.3.5.16 - WMP.508 - Removal and remediation of trees with strike potential to electric lines and equipment

As described within the 2022 WMP, SDG&E's 2022 WMP target for this initiative was to complete removal and remediation of hazard trees within 106 vegetation management areas (VMA) near electric lines and equipment. Per SDG&E's 2022 WMP Annual Report on Compliance (ARC) dated April 3, 2023, SDG&E reported the completion of hazard tree removal and remediation within 105 VMAs around distribution electric lines and equipment.

SDG&E provided an initial collection of data including GIS files identifying removal and remediation of hazard trees within 105 VMAs summarized below in Table 20. In SDG&E's response to Data Request DR010, SDG&E clarified that "one (1) VMA was identified as not needing an inspection due to not having any overhead structures." In response to Data Request

DR010, SDG&E further clarified that the data provided in the GIS files is the record of inspection. The IE reviewed record data provided for the inspection of 20 VMAs for removal and remediation trees with strike potential to electric lines and equipment. No issues were identified in the review of the data.

Table 20: Vegetation Management –Tree Removal and Remediation Summary

Description	2022 Target	2022 WMP ARC Report	DR010 Response	Summary
Removal and remediation of trees with strike potential to electric lines and equipment	106 Inspection	105 Inspections	105 Inspections	Goal met

7.3.5.20 - WMP.512 - Vegetation management to achieve clearances around electric lines and equipment

As described within the 2022 WMP, SDG&E's 2022 WMP target for this initiative was to manage vegetation growth using pole brushing at 34,000 distribution poles. Per SDG&E's 2022 WMP Annual Report on Compliance (ARC) dated April 3, 2023, SDG&E reported the completion of pole brushing for 35,485 distribution poles.

SDG&E provided the IE with the spatial Quarterly Data Report (QDR) files as geodatabases that showed 32,876 locations identified to the pole brushing initiative. The IE conducted a SME interview Per Appendix D Item No. 11 where SDG&E clarified that individual locations shown within the geodatabase account for multiple inspections for this initiative. After identifying the numerous inspections per location, the IE confirmed that the 32,876 locations represent 33,112 total inspections, as summarized below in Table 21.

In SDG&E's response to Data Request DR010, SDG&E confirmed that the data provided in the GIS files is the record of inspection. The IE reviewed data provided for pole brushing for 501 distribution poles. No issues were identified in the review of the data.

Table 21: Vegetation Management – Clearance Around Electric Equipment Summary

Description	2022 Target	2022 WMP ARC Report	DR-010 Response	Summary
Vegetation management to achieve clearance around electric lines and equipment	34,000 Poles Brushed	35,485 Poles Brushed	33,112 Poles Brushed	Goal Met

Per SDG&E's response in Data Request DR010, SDG&E identified that the difference between the quantities provided in the spatial QDR files and the quantities reported in ARC is due to the "due to the development of spatial QDR automation and enhancements to reporting," and SDG&E also notes "prior to enhanced automation, SDG&E reported counts of rows within the source system rather than number of pole units." As summarized above in Table 21, the IE confirmed SDG&E completed the activities relating to this initiative, and although the total poles brushed is less than the WMP Target, the total number completed is shown to be within 97% of the overall target, and as noted by SDG&E in DR010, SDG&E "considers this initiative substantially complete."

7.3.4.9.1 - WMP.551 - HFTD Tier 3 distribution pole inspections

Section 7.3.4.9.1 (HFTD Tier 3 Distribution Pole Inspections) of the WMP describes the inspection of overhead electric distribution poles in high-risk fire areas that are focused on identifying areas where maintenance would improve fire safety and reliability. An initial data request was submitted for a spreadsheet listing completed inspections for the HFTD Tier 3 distribution pole inspections. Once the IE reviewed the provided spreadsheet, a second request was submitted requesting the reduced sampling size of five (5) inspection documents and photos.

Based on the analysis performed of data, in the form of a spreadsheet, the following findings were observed:

- Five (5) Tier 3 locations identifying location, notification number, description of pole, equipment ID and inspection date.

In the final review of the data for the HFTD Tier 3 distribution pole inspections it was identified that the records for a total of 407 inspections were originally provided in the workbook in response to data request DR-002 compared to the 12,263 completed inspections per SDG&E's 2022 WMP ARC Report. The IE cross referenced the data with the GIS files provided by SDG&E and identified that the data exists in two feature classes comprising a total of 407 completed

inspections within each file for this initiative. With the data showing completion of 407 of the reported 12,263 Tier 3 completed inspections, the IE cannot validate the initiative goal was met.

Table 22: HFTD Tier 3 Inspections – Distribution Summary

Description	2022 Target	2022 WMP ARC Report	DR-002 Response	Summary
HFTD Tier 3 distribution pole inspections	12,268 Inspections	12,263 Inspections	407 Inspections	Unable to Validate Goal

7.3.4.9.2 - WMP.552 - Drone assessments of distribution infrastructure

As described within the 2022 WMP, SDG&E's target for this initiative was to complete 22,000 drone inspections of distribution infrastructure. SDG&E's 2022 WMP Annual Report on Compliance (ARC) dated April 3, 2023, SDG&E reported that 30,044 drone inspections were completed for distribution infrastructure.

SDG&E provided an initial collection of data including GIS files identifying 29,207 completed drone inspections for distribution infrastructure as summarized below in Table 23. In response to Data Request DR010, SDG&E confirmed that the information provided in the GIS files is the record of inspection. The IE reviewed a sample of the record data for 315 drone inspections of distribution infrastructure. No Issues were identified in the review of the data for the drone inspections of distribution infrastructure.

Table 23: Asset Management – Distribution Drone Inspections Summary

Description	2022 Target	2022 WMP ARC Report	DR-010 Response	Summary
Drone assessments of distribution infrastructure	22,000 Inspections	30,044 Inspections	29,207 Inspections	Goal met/ exceeded by 7,207 inspections

Although there is an 837 inspection difference between the totals for drone inspections for distribution infrastructure as reported in the 2022 WMP ARC Report and the GIS files provided, the IE confirms that SDG&E met the target for this initiative for 2022.

Additionally, SDG&E provided the following QA/QC process outlined in the "red box" for QA/QC of the drone assessments and review, as shown in Figure 20 provided within DR010, that SDG&E implements for reviewing and evaluating the drone imagery. The IE has also reviewed the QA/QC documentation for this initiative, as further described within Section 3.3 Verification of QA/QC Programs.

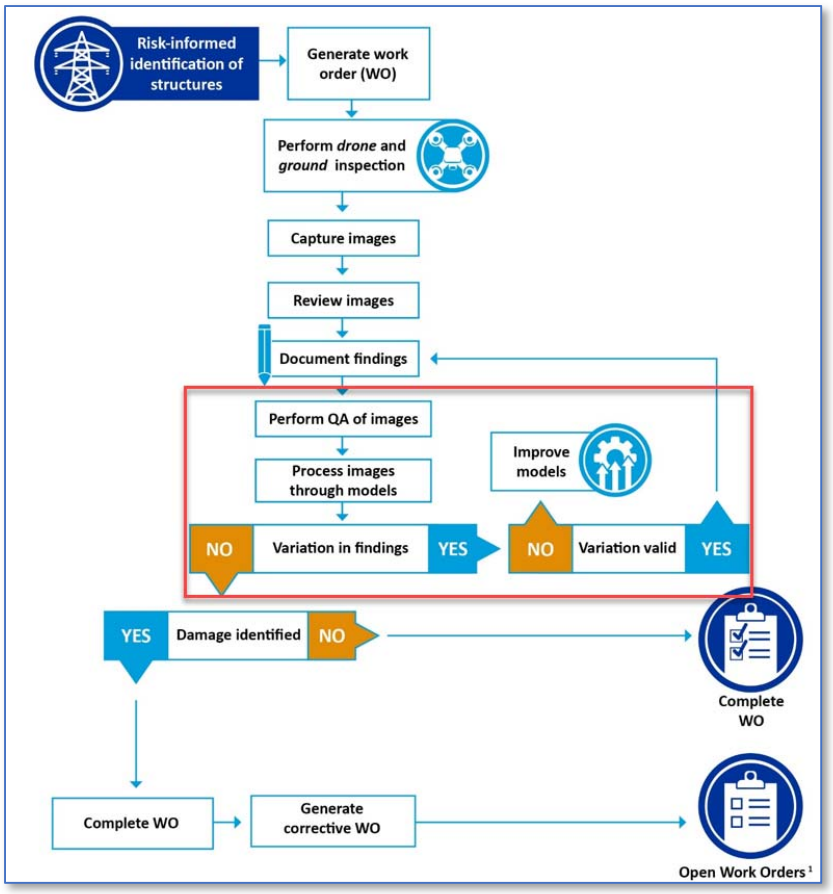


Figure 20: DR010 Distribution Drone Inspections Process Flow (Outlined in Red)

7.3.4.10.1 - WMP.554 - Drone assessment of transmission

As described within the 2022 WMP, SDG&E's target for this initiative was to complete 500 drone inspections of transmission infrastructure. SDG&E's 2022 WMP Annual Report on Compliance (ARC) dated April 3, 2023, SDG&E reported that 1,028 drone inspections were completed for transmission infrastructure.

SDG&E provided an initial collection of data including GIS files identifying 995 completed drone inspections for transmission infrastructure as summarized below in Table 24. In response to Data Request DR010, SDG&E confirmed that the information provided in the GIS files is the record of inspection. The IE reviewed a sample of the record data for 80 drone inspections of transmission infrastructure. No Issues were identified in the review of the data for the drone inspections of distribution infrastructure.

Table 24: Asset Management – Transmission Drone Inspections Summary

Description	2022 Target	2022 WMP ARC Report	DR-010 Response	Summary
Drone assessment of transmission	500 Inspection	1,028 Inspections	995 Inspections	Goal met/ exceeded by 495 inspections

Although there is a 33 inspection difference between the totals for drone inspections for transmission infrastructure as reported in the 2022 WMP ARC Report and the GIS files provided, the IE confirms that SDG&E met the target for this initiative for 2022.

7.3.4.10.2 - WMP.555 - Additional Transmission Aerial 69kV Tier 3 Visual Inspection

As described within the 2022 WMP, SDG&E's target for this initiative was to complete 1,654 additional aerial patrol inspections of 69kV infrastructure in Tier 3 of the HFTD. SDG&E's 2022 WMP Annual Report on Compliance (ARC) dated April 3, 2023, SDG&E reported that 1,649 additional patrol inspections were completed of 69kV infrastructure in Tier 3 of the HFTD.

SDG&E provided the IE with the spatial QDR files as geodatabases that showed 1,649 patrol inspections completed of 69kV infrastructure in Tier 3 of the HFTD summarized below in Table 25. In response to Data Request DR010, SDG&E confirmed that the information provided in the GIS files is the record of inspection. The IE reviewed a sample of the record data for 125 patrol inspections for 69kV infrastructure in Tier 3 of the HFTD. No issues were identified in the review of the data for the patrol inspections for 69kV infrastructure in Tier 3 of the HFTD.

Table 25: Asset Management – Patrol Inspections 69kV Tier 3 Summary

Description	2022 Target	2022 WMP ARC Report	DR-010 Response	Summary
Additional transmission aerial 69kV tier 3 visual inspection	1,654 Inspection	1,649 Inspections	1,649 Inspections	Goal Met

As self-reported by SDG&E in the ARC report and as summarized above in Table 25, the IE confirmed SDG&E completed the activities relating to this initiative, and although the total number of inspections is less than the WMP Target, the total number of completed is shown to be within 99.7% of the overall target.

3.1.3.2 Trends and Themes

The following is an overview of the themes and trends extrapolated after reviewing the sections of 3.1.2 Large Volume Quantifiable Goal/Target– Not Field Verifiable. The interpretation

incorporates various categories, including adherence to applicable utility protocols and standards for such work, along with assessments of the quality of the information provided to support the IE's overall review.

For the large volume non-field verifiable initiatives, the IE took a comprehensive approach to the requested information that was utilized for the large volume field verifiable initiatives. SDG&E provided data responses and documentation for initiatives with detailed information and completion records from the QDR's, related initiative information, and data clarifications through data requests or SME interviews, as noted within each respective section. Through the review and evaluation of these WMP activities, SDG&E's trend across the 2022 WMP activities identified within this section complies with the stated goals of the 2022 WMP unless otherwise specified herein, and SDG&E continues to incorporate lessons learned, continued improvements, and technological assessments from 2022 into ongoing and future SDG&E initiatives.

Per the Independent Evaluator Findings Summaries above, SDG&E's Wildfire Mitigation Program progress is summarized below.

Table 26: Large Volume Quantifiable Goal/Target – Not Field Verifiable Summary Table

SOW Category	2022 Initiative Number	Initiative Name	Finding	Detail on Finding
WMP Activity Completion	7.3.3.11.1 - WMP.466	Generator Grant Programs	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.3.11.3 - WMP.467	Generator Assistance Programs	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.3.11.2 - WMP.468	Standby Power Programs	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.4.1 - WMP.478	Detailed inspections of distribution electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.4.2 - WMP.479	Detailed inspections of transmission electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.4.4 - WMP.481	Infrared inspections of distribution electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.4.5 - WMP.482	Infrared inspections of transmission electric lines and equipment	Activity Completed	Compliant with the 2022 WMP

WMP Activity Completion	7.3.4.6 - WMP.483	Intrusive pole inspections	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.4.11 - WMP.488	Patrol inspections of distribution electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.4.12 - WMP.489	Patrol inspections of transmission electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.4.15 - WMP.492	Substation inspections	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.5.2 - WMP.494	Detailed inspections of vegetation around distribution electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.5.5 - WMP.497	Fuel management and reduction of “slash” from vegetation management activities	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.5.7 - WMP.499	LiDAR inspections of vegetation around distribution electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.5.9 - WMP.501	Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations	Activity in Progress	Not Compliant with the 2022 WMP
WMP Activity Completion	7.3.5.13 - WMP.505	Quality assurance / quality control of vegetation inspections	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.5.16 - WMP.508	Removal and remediation of trees with strike potential to electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.5.20 - WMP.512	Vegetation management to achieve clearances around electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.4.9.1 - WMP.551	HFTD Tier 3 distribution pole inspections	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.4.9.2 - WMP.552	Drone assessments of distribution infrastructure	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.4.10.1 - WMP.554	Drone assessment of transmission	Activity Completed	Compliant with the 2022 WMP

WMP Activity Completion	7.3.4.10.2 - WMP.555	Additional Transmission Aerial 69kV Tier 3 Visual Inspection	Unable to Validate	Unable to Validate

3.1.4 Small (less than 100 times) Volume Quantifiable Goal/Target

3.1.4.1 Review of Initiatives

Pursuant to the Final IE Scope of Work for the Review of Compliance with 2022 WMP, SDG&E provided a complete list of all 2022 WMP activities classified as Small (Less than 100 units) Volume Quantifiable Goal/Target that were conducted in 2022. These 2022 WMP activities identified within the Small Volume list were assessed in this section and presented below by each initiative.

7.3.2.1 - WMP.447 - Advanced weather monitoring and weather stations

Section 7.3.2.1 (Advanced Weather Monitoring and Weather Stations) of the WMP describes the installation of a weather station network to monitor events that have the potential to cause damage to electrical infrastructure.

SDG&E provided a spreadsheet listing all weather stations installed in 2022 in DR006. A second data request was submitted requesting sampling for eight (8) weather stations. Based on the analysis performed of data collected, eight (8) weather station locations along with documentation and photos were provided in DR013:

- Corte Madera
- Deerhorn Valley
- Laguna
- Lake Cuyamaca
- Mt. Laguna
- North Potrero
- Ramona
- Tierra del Sol

IE has confirmed that SDG&E complied with the 2022 WMP initiatives within this section, as summarized in Table 27.

Table 27: WMP.447 – Advanced Weather Monitoring and Weather Stations Summary

Description	2022 Target	2022 WMP ARC Report	DR006 Response	Summary
Advanced weather monitoring and weather stations	20 Weather Stations	50 Weather Stations	50 Weather Stations	Goal Met / Exceeded by 30 Weather Stations

7.3.3.1 - WMP.453 - Capacitor maintenance and replacement program

Section 7.3.3.1 (Capacitor Maintenance and Replacement Program) of the WMP describes how the program was developed to replace existing non-SCADA capacitors with a more modern SCADA switchable capacitor or to remove non-SCADA capacitors if not required for voltage or reactive support.

SDG&E provided a spreadsheet listing the 58 capacitor replacements in 2022 in DR003. A second request was submitted requesting the reduced sampling size of five (5) inspection documents/photos.

Based on the analysis performed of data collected in response DR012, the following documents were reviewed for completeness:

- Completed As-Builts for capacitor replacements

IE has confirmed that SDG&E complied with the 2022 WMP initiatives within this section, as summarized in Table 28.

Table 28: WMP.453 - Capacitor Maintenance and Replacement Program Summary

Description	2022 Target	2022 WMP ARC Report	DR003 Response	Summary
Capacitor Maintenance and Replacement Program	40 Capacitors	58 Capacitors	58 Capacitors	Goal Met / Exceeded by 18 Capacitors

7.3.3.3 - WMP.455 - Covered conductor installation

As described in the 2020-2022 WMP Update dated February 11, 2022, SDG&E committed to “a target of 60 miles for 2022” for its Covered Conductor Program. The Covered Conductor Program is one of three main fire hardening programs implemented by SDG&E, with a goal to “provide incidental contact protection” on its circuits. Per SDG&E's Q4 Quarterly Data Report (QDR) 2023-

02-01_SDGE_2022_QDR Non-Spatial Data_Rev_1_FINAL Table 1 and SDG&E's WMP ARC dated April 3, 2023, SDG&E reported the completion of 61.23 miles.

In DR004, SDG&E provided a summary spreadsheet SDGE_DR004_C1_20230602 regarding the covered conductor installation activities for 2022 that included reported installed mileage on eight (8) circuits for a total of 58.18 miles completed, as summarized in Table 29 below. The IE reviewed the record data and confirmed the 58.18 miles, associated circuits, and reported completion dates in 2022 provided in DR004. No issues were identified in the review of the data for the covered conductor installations.

Table 29: WMP.455 - Covered Conductor Installation Summary

Description	2022 Target	2022 WMP ARC Report	DR004 Response	Summary
Covered Conductor Installation	60 Miles	61.23 Miles	58.18 Miles	Goal Met

As summarized above in Table 29, the IE confirmed SDG&E completed the activities relating to this initiative, and although the total number of inspections is less than the WMP target, the total number of completed is shown to be within 97% of the overall target. As noted within the response in DR004 and per SDG&E's GIS analyst SME Interview per Appendix D Item No. 12, SDG&E considers "+/- 10% of plan to be substantially complete."

7.3.3.8.1 - WMP.461 - PSPS sectionalizing enhancements

As described in the 2020-2022 WMP Update dated February 11, 2022, SDG&E committed to installing "switches in strategic locations, improving the ability to isolate high-risk areas for potential de energization" with a target of 10 installations for 2022 with the WMP's Attachment B, Table 12. Per SDG&E's Q4 Quarterly Data Report (QDR) 2023-02-01_SDGE_2022_QDR Non-Spatial Data_Rev_1_FINAL Table 1 and SDG&E's WMP ARC dated April 3, 2023, SDG&E reported the completion of 12 switches.

In DR004, SDG&E provided a summary spreadsheet SDGE_DR004_C1_20230602 regarding the PSPS sectionalizing enhancements activities for 2022 that included reported installations on ten (10) circuits. Using the as-built drawings SDG&E provided in DR004, the IE has confirmed that SDG&E complied with the 2022 WMP initiatives within this section, as summarized in Table 30.

Table 30: WMP.461 - PSPS Sectionalizing Enhancements Summary

Description	2022 Target	2022 WMP ARC Report	DR004 Response	Summary
PSPS Sectionalizing Enhancements	10 Switches	12 Switches	10 Switches	Goal Met

Although there is a two (2) switch difference between the totals for PSPS sectionalizing enhancements as reported in the 2022 WMP ARC Report and the spreadsheet files provided, the IE confirms that SDG&E met the target for this initiative for 2022.

7.3.3.8.2 - WMP.462 – Microgrids

Section 7.3.3.8.2 (Microgrids) of the WMP describes the process of building microgrids that can be electrically isolated during a PSPS event and maintaining electric service to customers.

An initial data request was submitted for a spreadsheet listing one (1) microgrid. Once the IE reviewed the provided spreadsheet, a second request was submitted requesting documentation and photos. Based on the analysis performed of data collected in DR012 response, the following documents were reviewed for completeness:

- Review of the Ramona Microgrid along with associated photos.

In the 2022 WMP ARC, SDG&E cites the following as the reason for not reaching the 2022 target and the plan for 2023-2024: "SDG&E experienced delays acquiring appropriate and sufficient land rights for the microgrid projects and has been delayed in deploying the permanent renewable solutions. This has shifted spend from 2022 into 2023 and 2024" (page 17).

Table 31: WMP.462 – Microgrids Summary

Description	2022 Target	2022 WMP ARC Report	DR012 Response	Summary
Microgrids	4 Microgrids	1 Microgrid	1 Microgrid	Goal Not Met

7.3.3.9 - WMP.463 - Installation of system automation equipment

As described in the 2020-2022 WMP Update dated February 11, 2022, SDG&E committed to implementing "advanced protection technologies within electric substations and on the electric distribution system" with a target of 8 circuits for 2022 per the WMP Attachment B, Table 12.

Per SDG&E's Q4 Quarterly Data Report (QDR) 2023-02-01_SDGE_2022_QDR Non-Spatial Data_Rev_1_FINAL Table 1 and SDG&E's WMP ARC dated April 3, 2023, SDG&E reported the completion of 3 circuits. The reason for the delay was reported in the Q4 QDR as "AP did not meet the annual target. This program has encountered challenges obtaining permits required to proceed with construction on five circuits due to new procedures at the Bureau of Indian Affairs (BIA). In addition, there are environmental approval delays impacting three of the circuits. Project teams are evaluating options to begin construction for the remaining circuits with targeted completion in 2022. To mitigate permitting challenges, project teams will work to identify requirements earlier in the scoping phase and include such durations in project schedules." The reason for the delay was reported in the 2022 WMP ARC as "SDG&E experienced delays acquiring approvals of easement requests due to external process change."

In DR004, SDG&E provided a summary spreadsheet SDGE_DR004_C1_20230602 regarding the system automation equipment activities for 2022 that included reported installations on three (3) circuits and summarized below in Table 32. After reviewing the as-builts SDG&E provided in DR004, the IE was able to verify installation on two (2) circuits. Circuits RB1 and 176 were verified. Circuit 236 could not be verified using as-builts but is confirmed to be in the provided summary of circuit installations with a completion date in 2022 provided in DR004.

Table 32: WMP.463 - Installation of System Automation Equipment Summary

Description	2022 Target	2022 WMP ARC Report	DR004 Response	Summary
Installation of System Automation Equipment	8 Circuits	3 Circuits	3 Circuits	Goal Not Met

As summarized in Table 32 above, although the IE confirmed SDG&E completed the activities related to this initiative for 3 circuits, SDG&E did not meet the target noted in the 2022 WMP and as self-reported by SDG&E in the 2022 ARC Report and data request responses received.

7.3.3.16 - WMP.473 - Undergrounding of electric lines and/or equipment

As described in the 2020-2022 WMP Update dated February 11, 2022, SDG&E committed to converting "overhead systems to underground" with a target of 65 miles for 2022 WMP Attachment B, Table 12. Per SDG&E's Q4 Quarterly Data Report (QDR) 2023-02-01_SDGE_2022_QDR Non-Spatial Data_Rev_1_FINAL Table 1 and SDG&E's WMP ARC dated April 3, 2023, SDG&E reported the completion of 65 miles.

SDG&E utilizes the developed WiNGS-Planning model found within the 2022 WMP Section 4.5.1.7 Wildfire Next Generation System-Planning to prioritize and identify areas for undergrounding within HFTD. See Figure 21 below of Grid Hardening Decision Tree-WiNGS-

Planning steps and criteria used by SDG&E in determining grid hardening decisions for reducing PSPS events with considerations taken for "environmental, permitting, and design constraints."

Figure 4-30: Grid Hardening Decision Tree-WiNGS-Planning

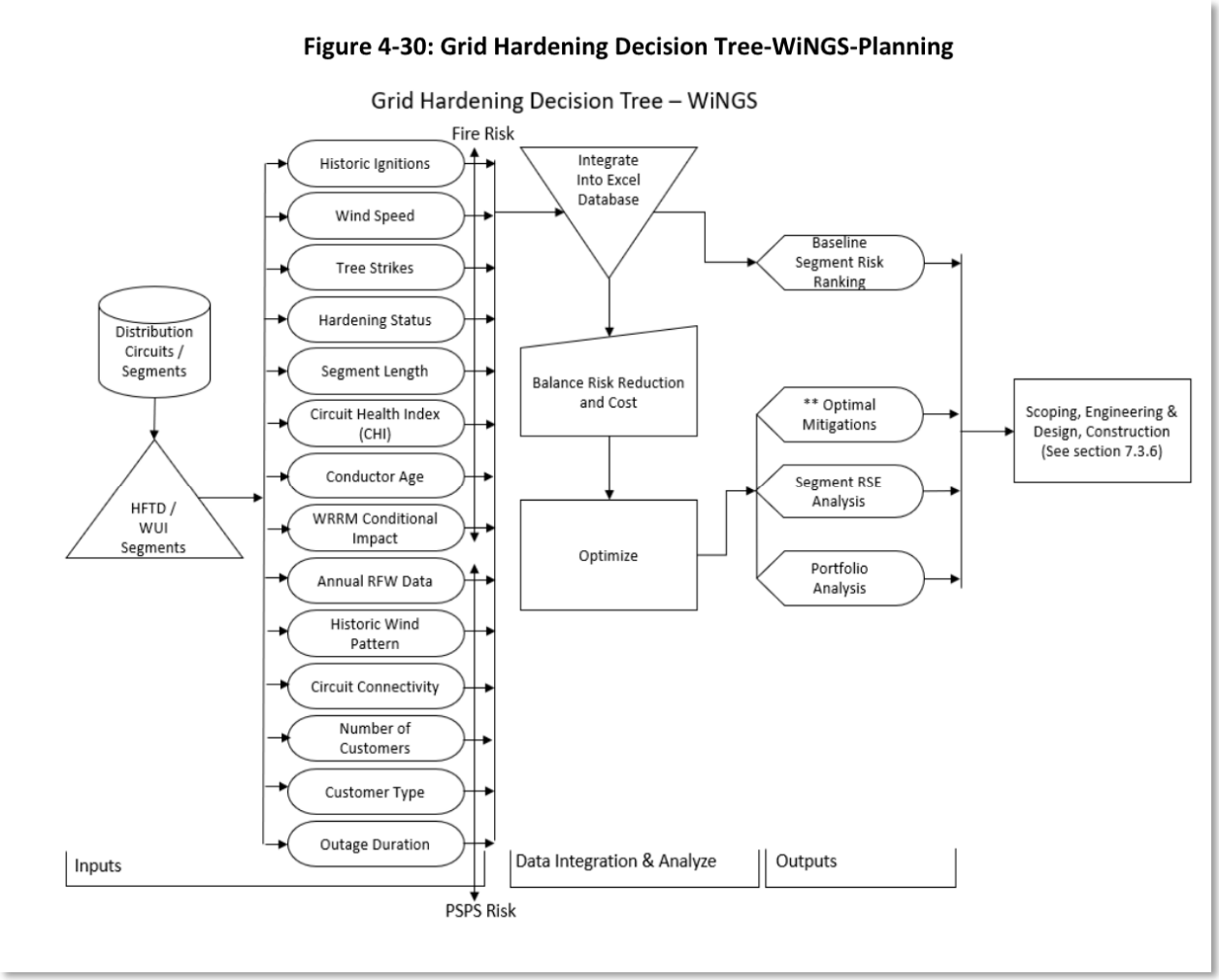


Figure 21: SDG&E 2022 WMP Grid Hardening Decision Tree-WiNGS Planning Model

Per DR004, SDG&E provided a summary spreadsheet SDGE_DR004_C1_20230602 for the undergrounding installation activities for 2022 that included reported installed mileage on thirteen (13) circuits for a total of 61.72 miles completed and summarized below in Table 33. The IE reviewed the record data provided, and no issues were identified in the review of the data for the undergrounding of electric lines and/or equipment.

Table 33: WMP.473 - Undergrounding of Electric Lines and/or Equipment Summary

Description	2022 Target	2022 WMP ARC Report	DR004 Response	Summary

Undergrounding of Electric Lines and/or Equipment	65 Miles	65 Miles	61.72 Miles	Goal Met

As summarized in Table 33 above, the IE confirmed SDG&E completed the activities relating to the undergrounding for the 61.72 miles, and although the total number of miles is less than the WMP target, the total number of completed miles is shown to be within 95% of the overall target. As noted within the response in DR004 and per SDG&E's GIS analyst SME Interview per Appendix D Item No. 13, SDG&E considers "+/- 10% of plan to be substantially complete."

7.3.3.17.1 - WMP.475 - Traditional hardening distribution overhead system hardening

As described in the 2020-2022 WMP Update dated February 11, 2022, SDG&E committed to replacing "wood poles with steel, replacement of conductor with uncovered or covered conductor, and in some cases permanent removal of overhead facilities." Per the First Errata to SDG&E's 2022 WMP dated March 17, 2023, SDG&E reported a target of 5 miles for 2022 per Table 12 in the First Errata. Per SDG&E's Q4 Quarterly Data Report (QDR) 2023-02-01_SDGE_2022_QDR Non-Spatial Data_Rev_1_FINAL Table 1 and SDG&E's WMP ARC dated April 3, 2023, SDG&E reported the completion of 26.30 miles.

In DR004, SDG&E provided a summary spreadsheet SDGE_DR004_C1_20230602 regarding the distribution overhead hardening installation activities for 2022 that included reported installed mileage on ten (10) circuits for a total of 11.74 miles completed and summarized below in Table 34. The IE reviewed the record data provided, and no issues were identified in the review of the data for the Traditional Hardening Distribution Overhead System Hardening initiative.

Table 34: WMP.475 - Traditional Hardening Distribution Overhead System Hardening Summary

Description	2022 Target	2022 WMP ARC Report	DR004 Response	Summary
Traditional Hardening Distribution Overhead System Hardening	5 Miles	26.3 Miles	11.74 Miles	Goal Met / Exceeded by 6.74 miles

Although there is a 14.56 mileage difference between the totals for the traditional hardening distribution overhead system hardening as reported in the 2022 WMP ARC Report and the spreadsheet files provided, the IE confirms that SDG&E met and exceeded the target for this initiative for 2022.

7.3.3.17.2.1 - WMP.543 - Overhead transmission fire hardening (Transmission)

As described in the 2020-2022 WMP Update dated February 11, 2022, SDG&E committed to "enhanced design criteria to replace wood poles with steel poles, replace aging conductors with high strength conductors, and increase conductor spacing in the HFTD to reduce the chance of risk events and ignitions." Per the First Errata to SDG&E's 2022 WMP dated March 17, 2023, SDG&E reported a target of 18.5 miles for 2022 per Errata Table 12. Per SDG&E's Q4 Quarterly Data Report (QDR) 2023-02-01_SDGE_2022_QDR Non-Spatial Data_Rev_1_FINAL Table 1 and SDG&E's WMP ARC dated April 3, 2023, SDG&E reported the completion of 18.28 miles.

In DR004, SDG&E provided a summary spreadsheet SDGE_DR004_C1_20230602 regarding the transmission overhead hardening installation activities for 2022 that included reported installed mileage on six (6) circuits for a total of 18.28 miles completed and summarized below in Table 35. The IE reviewed the record data provided, and no issues were identified in the review of the data for the overhead transmission fire hardening (transmission) initiative.

Table 35: WMP.543 - Overhead Transmission Fire Hardening (Transmission) Summary

Description	2022 Target	2022 WMP ARC Report	DR004 Response	Summary
Overhead Transmission Fire Hardening (Transmission)	18.5 Miles	18.28 Miles	18.28 Miles	Goal Met

As summarized in Table 35 above, the IE confirmed SDG&E completed the activities relating to the overhead transmission fire hardening for transmission for the 18.28 miles which aligns with SDG&E's self-reported ARC report of completed miles. Although the total number of miles is less than the WMP target, the total number of completed miles is within 99% of the overall target. As noted within the response in DR004 and per SDG&E's GIS analyst SME Interview on June 6, 2023, SDG&E considers "+/- 10% of plan to be substantially complete."

7.3.3.17.2.2 - WMP.544 - Underground transmission fire hardening (Transmission)

As described in the 2020-2022 WMP Update dated February 11, 2022, SDG&E committed to enhanced design criteria to replace wood poles with steel poles, replace aging conductors with high strength conductors, and increase conductor spacing in the HFTD to reduce the chance of

risk events and ignitions" with a target of 5.5 miles per the WMP Attachment B, Table 12. Per SDG&E's Q4 Quarterly Data Report (QDR) 2023-02-01_SDGE_2022_QDR Non-Spatial Data_Rev_1_FINAL Table 1, SDG&E reported the completion of 5.69 miles. SDG&E's WMP ARC dated April 3, 2023, lists the 2022 Target as 18.5 miles on page 22 and 5.5 miles in Appendix A (page 67). The 2022 ARC report lists the completion as 18.28 miles on page 22 and 5.69 miles in Appendix A (page 67). In alignment with the reported actuals in Appendix A of the ARC report, the IE utilized the target of 5.5 miles and actuals of 5.69 as reported for this initiative.

In DR004, SDG&E provided a summary spreadsheet SDGE_DR004_C1_20230602 regarding the underground transmission fire hardening (transmission) activities for 2022 that included reported installed mileage on one (1) circuit for a total of 5.70 miles completed and summarized below in Table 36. The IE reviewed the record data provided, and no issues were identified in the review of the data for the underground transmission fire hardening.

Table 36: WMP.544 - Underground Transmission Fire Hardening (Transmission) Summary

Description	2022 Target	2022 WMP ARC Report	DR004 Response	Summary
Underground Transmission Fire Hardening (Transmission)	5.5 Miles	5.69 Miles	5.70 Miles	Goal Met / Exceeded by 0.20 miles

Despite slight variations in reported miles between the 2022 WMP ARC Report and the spreadsheet files provided by SDG&E in DR004, the IE confirms that SDG&E met and exceeded the target for this initiative for 2022.

7.3.3.17.2.3 - WMP.545 - Overhead transmission fire hardening (Distribution Underbuilt)

As described in the 2020-2022 WMP Update dated February 11, 2022, SDG&E committed to "enhanced design criteria to replace wood poles with steel poles, replace aging conductors with high strength conductors, and increase conductor spacing in the HFTD to reduce the chance of risk events and ignitions." Per the First Errata to SDG&E's 2022 WMP dated March 17, 2023, SDG&E reported a target of 7.6 miles for 2022 per Errata Table 12. Per SDG&E's Q4 Quarterly Data Report (QDR) 2023-02-01_SDGE_2022_QDR Non-Spatial Data_Rev_1_FINAL Table 1, SDG&E reported the completion of 0.6 miles. The 2022 WMP Annual Report on Compliance (ARC), dated April 3, 2023, lists the 2022 Target as 18.5 miles on page 23 and 7.6 miles in Appendix A (page 67). The SDG&E's WMP ARC dated April 3, 2023 reports 0.6 miles in Appendix A (page 67). In alignment with the reported actuals in Appendix A of the ARC report, the IE utilized the target of 7.6 miles and actuals of 0.6 miles as reported by SDG&E for this initiative.

In DR004, SDG&E provided a summary spreadsheet SDGE_DR004_C1_20230602 regarding the transmission overhead hardening installation activities for 2022 that included reported installed mileage on one (1) circuit for a total of 0.57 miles completed and summarized below in Table 37 The IE reviewed the record data provided, and no issues were identified in the review of the data for the overhead transmission fire hardening (distribution underbuilt).

Table 37: WMP.545 - Overhead Transmission Fire Hardening (Distribution Underbuilt) Summary

Description	2022 Target	2022 WMP ARC Report	DR004 Response	Summary
Overhead Transmission Fire Hardening (Distribution Underbuilt)	7.6 Miles	0.6 Miles	0.57 Miles	Goal Not Met

Despite slight variations in reported miles between the 2022 WMP ARC Report and the spreadsheet files provided by SDG&E in DR004, the IE confirms that SDG&E did not meet the target for this initiative for 2022 as reported in the 2022 WMP ARC and noted as "SDG&E did not achieve the target due to permitting delays," and further described in the Q4 QDR as “this program did not meet the annual target. Distribution Underbuild work is shifting to 2023 due to prior issues and delays with the jack and bore construction method and dewatering. The project was re-designed to overcome these issues, pushing construction schedule to 2023.”

7.3.3.18.1 - WMP.549 - Distribution Communications Reliability Improvements (LTE)

Section 7.3.3.18.1 (Distribution Communications Reliability Improvements (LTE)) of the WMP describes the development of a privately-owned LTE network using licensed radio frequency spectrum, enhancing the reliability of the communication network.

An initial data request was submitted for a spreadsheet listing five (5) LTE locations. Once the IE reviewed the provided spreadsheet, a second request was submitted requesting documentation and photos.

Based on the analysis performed of data collected in DR012 response, the following documents were reviewed for completeness:

- Five (5) as-built forms with test call results

In the 2022 WMP ARC, SDG&E cites the following as the reason for not reaching the 2022 target: “A variety of permitting activities delayed construction for a number of sites in 2022. Cleveland

National Forest Environmental, City, and County jurisdictions played a role in delaying sites" (page 23).

Table 38: WMP.549 - Distribution Communications Reliability Improvements (LTE) Summary

Description	2022 Target	2022 WMP ARC Report	DR003 Response	Summary
Distribution Communications Reliability Improvements (LTE)	25 Stations	21 Stations	21 Stations	Goal Not Met

7.3.2.2.1 - WMP.970 – Air Quality Index-Environmental Monitoring System

Section 7.3.2.2.1 (Air Quality Index-Environmental Monitoring Systems) of the WMP describes the installation of particulate sensors as well as an automatic notification system to alert of poor air quality.

An initial data request was submitted for a spreadsheet listing the eight (8) installation locations. Once the IE reviewed the provided spreadsheet, a second data request was submitted requesting the installation forms/photos for two (2) locations.

Based on the analysis performed of data collected, the following findings were observed:

- Two (2) AQ Station documents provided detailing information for the Neighborhood Particulate Monitor PM 2.5, Data Logger information and multiple photos to document installation.

IE has confirmed that SDG&E complied with the 2022 WMP initiatives within this section, as summarized in Table 39.

Table 39: WMP.970 – Air Quality Index-Environmental Monitoring System Summary

Description	2022 Target	2022 WMP ARC Report	DR006 Response	Summary
Air Quality Index-Environmental Monitoring Systems	6 Sensors	8 Sensors	8 Sensors	Goal Met / Exceeded by 2 Sensors

7.3.2.2.2 - WMP.971 – Camera Network-Satellite-Based Remote Sensing

Section 7.3.2.2.2 (Camera Network-Satellite-Based Remote Sensing) of the WMP describes the partnership with SSEC (University of Wisconsin) to increase situational awareness of wildfire ignitions in the service territory providing space-based fire alerts in real time.

An initial data request was submitted for a spreadsheet listing each sensing unit. Once the IE reviewed the provided spreadsheet, a second data request was submitted requesting sampling.

Based on the analysis performed of data collected, one location along with documentation and photos were provided:

- Lake Wohlford Airport, Escondido

IE has confirmed that SDG&E complied with the 2022 WMP initiatives within this section, as summarized in Table 40.

Table 40: WMP.971 – Camera Network-Satellite-Based Remote Sensing Summary

Description	2022 Target	2022 WMP ARC Report	DR006 Response	Summary
Camera Network-Satellite-Based Remote Sensing	8 Cameras	12 Cameras	12 Cameras	Goal Met / Exceeded by 4 Cameras

3.1.4.2 Trends and Themes

For the evaluation of the Small Volume Quantifiable Goal/Target initiatives categorized by SDG&E, at the commencement of this IE ARC Report, the IE reviewed publicly available documents, online articles, and related published reports as referenced throughout the section and detailed within Appendix B List of Supplemental Documents Reviewed. Concurrently, the IE submitted data requests and reviewed the SDG&E provided responses with various verification documentation and as-builts.

The following is an overview of the themes and trends extrapolated after reviewing the various sections of Small Volume Quantifiable Goal/Target. The interpretation incorporates assessments of the quality of the information provided to support our overall review. Through the review and evaluation of these WMP activities, SDG&E's trend across the 2022 WMP activities identified within this section complies with the stated goals identified within the 2022 WMP, and SDG&E continues to incorporate data-collected analytics, lessons learned, and technological assessments into the 2022 goals and future SDG&E initiatives. Validation was also conducted through SME interviews, as listed within Appendix D.

SDG&E has developed a broad range of activities that are designed to reduce the likelihood of initiating a wildfire, such as transmission and distribution infrastructure hardening, weather station and environmental/remote sensors, capacitor maintenance and replacement, PSPS sectionalizing enhancements, microgrid installation, implementing advanced protection technologies on electric infrastructure, undergrounding, and other technological improvements.

Most of the initiatives reviewed showed a commitment to completion demonstrated by the documents provided in the data requests.

Table 41: Small Volume Quantifiable Goal/Target Summary Table

SOW Category	2022 Initiative Number	Initiative Name	Finding	Detail on Finding
WMP Activity Completion	7.3.2.2.2 - WMP.447	Advanced weather monitoring and weather stations	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.3.1 - WMP.453	Capacitor maintenance and replacement program	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.3.3 - WMP.455	Covered conductor installation	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.3.8.1 - WMP.461	PSPS sectionalizing enhancements	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.3.8.2 - WMP.462	Microgrids	Activity In Progress	Not Compliant with the 2022 WMP
WMP Activity Completion	7.3.3.9 - WMP.463	Installation of system automation equipment	Activity In Progress	Not Compliant with the 2022 WMP
WMP Activity Completion	7.3.3.16 - WMP.473	Undergrounding of electric lines and/or equipment	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.3.17.1 - WMP.475	Traditional hardening distribution overhead system hardening	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.3.17.2.1 - WMP.543	Overhead transmission fire hardening (Transmission)	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.3.17.2.2 - WMP.544	Underground transmission fire hardening (Transmission)	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.3.17.2.3 - WMP.545	Overhead transmission fire hardening (Distribution Underbuilt)	Activity In Progress	Not Compliant with the 2022 WMP

WMP Activity Completion	7.3.3.17.18.1 - WMP.549	Distribution Communications Reliability Improvements (LTE)	Activity In Progress	Not Compliant with the 2022 WMP
WMP Activity Completion	7.3.2.2.1 - WMP.970	Air Quality Index-Environmental Monitoring System	Activity Completed	Compliant with the 2022 WMP
WMP Activity Completion	7.3.2.2.2 - WMP.971	Camera Network-Satellite-Based Remote Sensing	Activity Completed	Compliant with the 2022 WMP

3.1.5 Qualitative Goal/Target

3.1.5.1 Review of Initiatives

Pursuant to the Final IE Scope of Work for the Review of Compliance with 2022 WMP, SDG&E provided a complete list of all 2022 WMP activities classified as Qualitative Goal/Target that were conducted in 2021. These 2022 WMP activities identified within the Qualitative list were assessed within this section and are presented below in tables grouped by the associated initiative category. The vegetative management activities follow the table in narrative form. The IE findings are defined as follows:

- Activity Validated – Qualitative work on the initiative began and ended in 2022.
- Activity In Progress – Qualitative work on the initiative began in 2022 and continues into 2023.
- Activity Ongoing – Qualitative work on the initiative is incorporated into operations to be repeated annually.

Table 42: Risk Assessment & Mapping Summary Table

Initiative Name	Initiative Validation	Finding
7.3.3.1 - WMP.442 - A summarized risk map that shows the overall ignition probability and estimated wildfire consequence along the electric lines and equipment	▪ Data provided and reviewed of the various forms of measurement for mapping program. Examples include nominal voltage, ignition rate, wildfire consequence, wildfire risk score and PSPS risk.	Activity Ongoing

Table 43: Situational Awareness & Forecasting Summary Table

Initiative Name	Initiative Validation	Finding
7.3.2.4.1 - WMP.450 - Fire potential index	▪ Documentation for operational updates, analysis with Capstone team and a list of academia partnerships. Detailed documents provided included information on UCSD's Capstone team, analysis performed, their final report as well as a PPT on Fire Weather Data Analysis. Academia partnerships include UC San Diego and UC San Jose.	Activity Ongoing
7.3.2.4.2 - WMP.540 - Santa Ana wildfire threat index	▪ Detailed documents provided and reviewed include the Santa Ana Winds Fire Risk Classification Project Implementation report, the Santa Ana Wildfire Threat Index report, and multiple power point presentations related to SAWTI.	Activity Ongoing
7.3.2.4.3 - WMP.541 - High-performance computing infrastructure	▪ Documents provided and reviewed include an overview of specs for the two (2) new HPCCs and sample of data generated in a twenty-four hour period by the HPCCs.	Activity Ongoing
7.3.2.5 - WMP.451 - Personnel monitoring areas of electric lines and equipment in elevated fire risk conditions	▪ Requested and reviewed minimum qualifications and special certification requirements for linemen. Deployment of TracPlus. Exploring extended reality PSPS for personnel.	Activity Ongoing

Table 44: Grid Design & System Hardening Summary Table

Initiative Name	Initiative Validation	Finding
7.3.3.6 - WMP.458 - Distribution pole replacement	▪ Per attachment DR-004 CMP Pole Replacements 2022 in DR004,	Activity Ongoing

and reinforcement, including with composite poles	SDG&E completed 417 distribution pole replacements and reinforcements in 2022. ▪ As-built drawings were provided in DR004 for some of the replaced structures and over 200 replaced poles were verified	

Table 45: Asset Management & Inspections Summary Table

Initiative Name	Initiative Validation	Finding
7.3.4.7 - WMP.484 - LiDAR inspections of distribution electric lines and equipment	▪ Vendor subcontract including Scope of Work (SOW) for LiDAR capture and vegetation analysis per attachment 5660063636 Towill in DR004 ▪ List of circuits flown and distances for over 4,000 miles of distribution lines per attachment FRESH21 Export in DR004 ▪ Vegetation clearance violation analysis for eleven (11) circuits per eleven (11) findings reports in DR004	Activity Validated
7.3.4.8 - WMP.485 - LiDAR inspections of transmission electric lines and equipment	▪ Per SDG&E's WMP ARC dated April 3, 2023, transmission LiDAR was captured on an as-needed basis to support design work.	Activity Ongoing
7.3.4.14 - WMP.491 - Quality assurance / quality control of inspections	▪ Per SDG&E's WMP ARC dated April 3, 2023, SDG&E completed 100% of the QA/QC audits for the	Activity Validated

	electric distribution system in 2022. ▪ Per provided document DR002_WMP.49, the audit count is higher than the target.	

Table 46: Vegetation Management & Inspections Summary Table

Initiative Name	Initiative Validation	Finding
7.3.5.1 - WMP.493 - Additional efforts to manage community and environmental impacts	▪ Detailed content information in the provided documentation, demonstrating SDG&E's commitment to customer engagement in the implementation of vegetation management practices to mitigate the risks associated with wildfires.	Activity Ongoing
7.3.5.14 - WMP.506 - Recruiting and training of vegetation management personnel	▪ Per training curriculum and evidence for completion of the two 5-week training courses in DR004, SDG&E completed this initiative for 2022 and will continue in 2023.	Activity In Progress
7.3.5.15 - WMP.507 - Remediation of at-risk species	▪ Per the list provided in DR004, it appears SDG&E updated its new Genus-species attribute fields within the tree inventory database in 2022 and will continue third-party collaboration for this initiative in 2023.	Activity In Progress
7.3.5.19 - WMP.511 - Vegetation inventory system	▪ Per the items provided in DR004, it appears SDG&E created new data fields to electronically record customer refusals and created new Scheduling Work Orders (SWOs) specific to the off-cycle HFTD patrol activity to allow for better planning, documentation, and reporting. SDG&E did not provide other evidence of the	Activity In Progress

	Epoch inventory system improvements (aside from what was noted for initiative WMP.507) and will continue this initiative in 2023.	

Table 47: Grid Operations & Operating Protocols Summary Table

Initiative Name	Initiative Validation	Finding
7.3.6.3 – WMP.514 – Crew-accompanying ignition prevention and suppression resources and services	▪ Per SDG&E's WMP ARC dated April 3, 2023, "Per SDG&E's WMP ARC dated April 3, 2023, SDG&E "SDG&E supported the activities of San Diego personnel as at-risk operations and maintenance work was performed during days with elevated or extreme FPI. Over 12 daily resources supported the activities These crews focused on fire prevention and ignition mitigation." ▪ Review of the 2022 WMP update, Electric Standard Practice "SDG&E's Operations & Maintenance Wildland Fire Prevention Plan," and detailed content information in internet research into initiative demonstrating SDG&E's commitment to providing prevention resources. See Appendix B items 2, 3, and 4.	Activity Ongoing
7.3.6.4 – WMP.515 – Personnel work procedures and training in conditions of elevated fire risk	▪ Per SDG&E's WMP ARC dated April 3, 2023, "In 2022, SDG&E reviewed and revised ESP 113.1 and conducted training with field crews on the content of the plan." ▪ SDG&E's Contractor Safety Manual, Construction Fire Prevention Plan, and various	Activity Validated

	internet documents provided content confirming work procedures and training during elevated fire risk. See Appendix B items 2, 5, 6, 7, and 8.	
7.3.6.5 – WMP.516 – Protocols for PSPS re-energization	▪ Per SDG&E's WMP ARC dated April 3, 2023, reviewed the protocols but was unable to test them due to the lack of PSPS event. ▪ Review of the 2022 WMP, 2022 PSPS Pre Season report, 2022 Plan to Support Access and Functional Needs Populations during PSPS document, and internet research of various documents related to protocols in place for restoration planning activities. See Appendix B items 9, 10, 11, and 12.	Activity Ongoing
7.3.6.6 – WMP.517 – PSPS events and mitigation of PSPS impacts	▪ Per SDG&E's WMP ARC dated April 3, 2023, SDG&E continued system hardening projects according to the details listed for those projects in other sections. The WINGS-Planning model had multiple enhancements and data updates. ▪ Review of internet documents including CPUC's PSPS Shutoffs document, Sempra's document "SDG&E Shares Latest Wildfire Safety Advancements & PSPS Shutoff Tips," and SDG&E's residential tab on website. See Appendix B items 13, 14, and 15.	Activity Ongoing
7.3.6.7.1 – WMP.557 – Aviation firefighting program	▪ Per SDG&E's WMP ARC dated April 3, 2023, SDG&E purchased a Sikorsky S-70M and it is currently being outfitted and proceeding through FAA certification requirements. ▪ Review of the 2022 WMP, SDG&E's website pages " Working	Activity Ongoing

	to Ensure Public Safety," "Wildland Safety Advancements," and YouTube video "Powered Up: San Diego Gas and Electric." See Appendix B items 16, 18, and 19.	

Table 48: Data Governance Summary Table

Initiative Name	Initiative Validation	Finding
7.3.7.1 – WMP.519 – Centralized repository for data	▪ Per the example mock audit from 2020, documentation and processes for data users across the enterprise, the Data Governance Program Charter, the WMP DGF Compliance Documentation Guide, and a table listing "Important elements for capturing WMP Metrics Logic" in DR004, SDG&E made progress on this initiative. In the 2022 WMP ARC, SDG&E reported that OEIS released new 2023 Data Guidelines, which delayed remaining 2022 requirements to "comply with new 2023 guidance" (page 49).	Activity In Progress
7.3.7.2 – WMP.520 – Collaborative research on utility ignition and/or wildfire	▪ SDG&E developed a collaborative white paper to the International Council on Large Electric System (CIGRE) outlining how electric utilities worldwide can enhance wildfire mitigation practices or prepare a comprehensive wildfire risk management plan. The reference for this paper can be found in Appendix B, Item No. 1.	Activity Validated

7.3.7.4.1 – WMP.558 – Ignition management program	▪ Per the 12-hour notification, 30-day incident report, outage heat form, and OEIS regulatory language for fire-related incident notifications in DR004, SDG&E completed progress on this initiative in 2022.	Activity In Progress
7.3.7.4.2 – WMP.559 – Reliability database	▪ Per email communications provided in DR004, SDG&E implemented the SAIDIDAT+ application in Q3 2022.	Activity Validated

Table 49: Resource Allocation Methodology Summary Table

Initiative Name	Initiative Validation	Finding
7.3.8.1 – WMP.523 – Allocation methodology development and application	▪ Per SDG&E's WMP ARC dated April 3, 2023, SDG&E implemented an investment prioritization tool and began a pilot of its use in production. ▪ Per SDG&E's WMP ARC dated April 3, 2023, SDG&E updated the automation of the WiNGS-Planning model as well as incorporating lifecycle cost. ▪ Review of the 2022 WMP, SDGE's "Final S1710027-PortAlloc Methodology Insert.pdf," and CPUC proceedings - For Authority to Update Marginal Cost A.23.01-008. See Appendix B item 20.	Activity Ongoing

Table 50: Emergency Planning & Preparedness Summary Table

Initiative Name	Initiative Validation	Finding
7.3.9.1 - WMP.526 - Adequate and trained workforce for service restoration	▪ Evaluated provided documents such as PSPS Fire Outlook PPT,	Activity Ongoing

	PSPS personnel training log, PSPS tabletop exercise	
7.3.9.2 - WMP.527 - Community outreach, public awareness, and communications efforts	▪ Data provided for review of initiative includes 2022 SDG&E PSPS Public Education & Communications Plan and 2022 Customer Research and Feedback	Activity Ongoing
7.3.9.3 - WMP.1007 - Customer support in emergencies	▪ Data provided and reviewed include customer support during 2022 Potrero Fire and Programs/Resources provided during a fire event document	Activity Ongoing
7.3.9.4 - WMP.1008 - Disaster and emergency preparedness plan	▪ Review of SDG&E's Company Emergency and Disaster Preparedness Plan	Activity Ongoing
7.3.9.5 - WMP.1009 - Preparedness and planning for service restoration	▪ Data provided and reviewed include Mutual Aid 2022 spreadsheet and Notification Group Concept of Operations 2022	Activity Ongoing
7.3.9.6 - WMP.1010 - Protocols in place to learn from wildfire events	▪ Data provided and reviewed include Mutual Aid 2022 spreadsheet and Training and Exercise New Responder Course Documentation	Activity Ongoing

Table 51: Stakeholder Cooperation & Community Engagement Summary Table

Initiative Name	Initiative Validation	Finding
7.3.10.1 - WMP.532 - Community outreach, public awareness, and communications efforts	▪ Aligns with the goals outlined in Section 7.3.10.1 of the WMP. Their outlined approach to community engagement, inclusive communications, and partnerships with CBOs demonstrates their commitment to educating and engaging the public in wildfire safety measures.	Activity Ongoing

7.3.10.1 - WMP.563 - PSPS communication practices	▪ Overall, SDG&E's response addresses all aspects of the data request and provides comprehensive insights into their PSPS communication practices. Their documents and information showcase a thorough approach to communication, preparedness, and collaboration with community partners, emphasizing SDG&E's commitment to mitigating the risks associated with PSPS events and ensuring public safety.	Activity Ongoing
7.3.10.3 - WMP.1011 - Cooperation with suppression agencies	▪ Meets the goals of the WMP by providing detailed information on their cooperation with suppression agencies. The data reflects their recognition of the importance of collaboration in emergency response and regional resilience.	Activity Ongoing

3.1.5.2 Trends and Themes

The IE team evaluated Qualitative Goal/Targets for 32 initiatives related to SDG&E's 2022 WMP across 10 categories. Validation was completed by document review, listed in Appendix B, of publicly available material as well as material provided by SDG&E through document request.

Information reviewed in the course of the evaluation of the initiatives underscored the ongoing nature of the efforts associated with the qualitative goals/targets. Work towards initiatives that has been validated for the 2022 WMP is currently in the process of being executed for the 2023 WMP. SDG&E has approached the qualitative goals systematically relying on established processes where appropriate, developing new processes to fill in, monitoring outcomes, and refining the approach to incorporate feedback to be carried forward to future wildfire mitigation efforts. SDG&E completed improvements to its wildfire index programs, enhanced personnel certifications, replaced and reinforced distribution poles, conducted LiDAR inspections for electric infrastructure, continued to conduct quality assurance inspections for transmission and distribution systems, enhance vegetation management measures, increased data management, produced a collaborative white paper on utility wildfire mitigation practices, increased emergency planning and preparedness, increased community outreach and communication

practices, and enhanced procedures, standards, and overall governance processes for wildfire mitigation.

SDG&E's trend across the 2022 WMP activities identified within this section complies with the stated goals identified within the 2022 WMP.

3.2 Verification of Funding

The IE team reviewed the funding for each initiative of the 2022 WMP to evaluate and verify it. This initial assessment aimed to assess the alignment of public records issued by SDG&E (from February 2022 to date) and compare those records to the information SDG&E provided. The assessment included reviewing the Actual and Planned expenditures and their totals, followed by a detailed breakdown of the Actual and Planned expenditures for the O&M and Capital costs separately. The approach provided an initial big-picture understanding of the overall initiative spending trends. This section's detailed analysis and findings support the report's associated trends and justifications for funding compliance.

To evaluate SDG&E's 2022 WMP, dated February 11, 2022, and the costs related to it, the IE reviewed SDG&E's 2022 WMP Annual Report on Compliance (ARC), dated April 3, 2023, for the 2022 WMP Report and the financial data and details for the ten (10) 2022 WMP initiative categories broken down to a total of 73 mitigations/initiatives. In addition, the IE utilized the information to verify and document SDG&E's explanations of the instances in which SDG&E funded WMP activities at less than 100 percent.

During the IE's review of the publicly available documents and the documents SDG&E provided, as part of its analysis to verify all instances in which WMP activities were funded less than 100 percent, the IE noted minor discrepancies in the amounts allocated to two (2) of the 73 mitigations/initiatives. Although the total amounts of Capital and O&M expenditure, both planned and actual, match the data analyzed and what SDG&E reported, the IE listed the two (2) discrepancies below for SDG&E's reference:

<u>WMP Initiative 7.3.1.1 – Risk Map</u>

In SDG&E's 2022 WMP ARC document, dated April 3, 2023, on page 6, SDG&E listed its actual 2022 Capital costs for WMP Initiative 7.3.1.1 as $ 1,485.83. However, per the 2022 WMP ARC Appendix A: ARC Summary, the same WMP initiative does not show any Capital spend. Similarly, the IE noted that $1,485.83 is shown as an actual Capital cost under WMP Initiative 7.3.8.3, on Appendix A, without any supporting narrative explaining the overspending for the later WMP initiative. This seems to be an inadvertent transposition of numbers between the two initiatives. Additionally, the IE acknowledges that SDG&E may have caught the error and, thus, included the following footnote in its introduction section of the ARC document: *"SDG&E notes that the figures included in this Report in some cases differ from those submitted in its 2022 Fourth Quarter Quarterly Data Report, submitted February 1, 2023. The changes reflect minor corrections realized as SDG&E completed its 2023 WMP submission and nonspatial tables. SDG&E is also submitting a revised Fourth Quarter QDR to make these corrections."*

Table 2: Financial Summary for Risk Assessment and Mapping Programs

Capital or O&M	2022 Planned ($000)	2022 Actual ($000)	$ Change ($000)
Capital	$ 242.55	$ 1,485.83	$ 1,243.28
O&M	$ 3,697.20	$ 3,734.87	$ 37.67

In conclusion, the data included in Appendix A, labeled ARC Summary, does not match the Financial Summary (Table 2) shown above on page 4 of the 2022 WMP ARC document, dated April 3, 2023, for the WMP Initiative 7.3.1.1.

WMP Initiative 7.3.3.17.3 - CNF MSUP Powerline Replacement Program

In SDG&E's Appendix A, labeled ARC Summary, which was attached to the 2022 WMP ARC document, dated April 3, 2023, SDG&E listed its planned and actual 2022 Capital and O&M costs for WMP Initiative 7.3.3.17.3, as follows:

- $1,370.06 (Capital Planned budget)
- $1,592.37 (Capital Actual spend)
- $1,900.03 (O&M Planned budget)
- $2,212.35 (O&M Actual spend)

Table 19: Financial Summary for Grid Design and System Hardening Programs

Capital or O&M	2022 Planned ($000)	2022 Actual ($000)	$ Change ($000)
Capital	$ 442,793.14	$ 326,059.68	- $ 116,733.81
O&M	$ 30,327.03	$ 26,966.06	- $ 3,360.97

In conclusion, the data included in Appendix A, labeled ARC Summary, does not match the Financial Summary (Table 19) shown above on page 13 of the 2022 WMP ARC document, dated April 3, 2023, for the WMP Initiative 7.3.3.17.3.

In the following Table 52: Summary of 2022 WMP Total Expenditure, Capital and O&M (Thousands of Dollars), the IE lists 2022 Planned and Actual costs and their variance per SDG&E's 2022 WMP ARC document, dated April 3, 2023. In addition, Table 52 shows the calculated variance percentages for the ten (10) WMP categories.

Table 52: Summary of 2022 WMP Total Capital and O&M (Thousands of Dollars)

Initiative Category	Total Planned	Total Actual	Total Change	Total Change %
7.3.1 Risk Assessment and Mapping	$3,939.75	$3,734.87	-$204.88	-5%

7.3.2 Situational Awareness and Forecasting	$11,265.92	$10,063.27	-$1,202.65	-11%
7.3.3 Grid Design and System Hardening	$476,390.26	$356,830.47	-$119,559.79	-25%
7.3.4 Asset Management and Inspections	$95,401.72	$116,399.71	$20,997.99	22%
7.3.5 Vegetation Management and Inspections	$68,877.01	$74,648.27	$5,771.26	8%
7.3.6 Grid Operations and Operating Protocols	$36,226.52	$21,907.19	-$14,319.33	-40%
7.3.7 Data Governance	$32,461.14	$19,978.80	-$12,482.34	-38%
7.3.8 Resource Allocation Methodology	$4,785.88	$5,452.46	$666.58	14%
7.3.9 Emergency Planning and Preparedness	$24,018.84	$15,147.33	-$8,871.51	-37%
7.3.10 Stakeholder Cooperation and Community Engagement	$17,026.00	$15,280.80	-$1,745.20	-10%
Totals	**$770,393.04**	**$639,443.17**	**-$130,949.87**	**-17%**

The key findings of the IE analysis of Capital and O&M expenditures are summarized below. However, in the subsequent sections, 3.2.2 IE Analysis of Underspend Expenditure and 3.2.3 Summary of Underspend Instances, the IE team thoroughly analyzed and listed the underspend, which is any record of a 2022 WMP initiative/activity funded less than 100 percent, as defined by the OEIS.

The IE has noted that the two (2) largest underspent Capital budgets listed below were both due to reduced costs associated with increased efficiency in construction and lower construction costs:

- 7.3.3.3 - Covered conductor installation
  - -$35,131.35
- 7.3.3.16 - Undergrounding of electric lines and/or equipment
  - -$62,169.57

The IE also noted that the three largest (3) underspent Capital and O&M budgets below were due to project delays associated with acquiring appropriate and sufficient land rights, Federal Communications Commission (FCC), and construction/partial completion:

- 7.3.3.8.2 - Microgrids
  - -$10,611.78
- 7.3.3.17.2 - Overhead transmission fire hardening (Distribution Underbuilt)

- -$1,035.50
- 7.3.3.18.1 - Distribution Communications Reliability Improvements (LTE)
  - -$25,464.28

3.2.1 IE Analysis of Capital and O&M Expenditure

Based on the information provided in SDG&E's 2022 WMP ARC document, dated April 3, 2023, the IE was able to break down the Capital and O&M costs into two separate tables, Table 53: Summary of 2022 WMP Capital Expenditure and Table 54: Summary of 2022 WMP O&M Expenditure. The details provided by SDG&E enabled the IE to conduct a more detailed review of the planned allocations vs. actual expenditures, the calculated variance amounts, and percentages.

Table 53: Summary of 2022 WMP Capital Expenditure (Thousands of Dollars)

Initiative Category	Capital Planned	Capital Actual	Capital Change	Capital Change %
7.3.1 Risk Assessment and Mapping	$242.55	$0.00	-$242.55	-100%
7.3.2 Situational Awareness and Forecasting	$8,912.01	$8,245.04	-$666.83	-7%
7.3.3 Grid Design and System Hardening	$444,163.19	$327,652.06	-$116,511.50	-26%
7.3.4 Asset Management and Inspections	$38,384.90	$66,155.73	$27,770.84	72%
7.3.5 Vegetation Management and Inspections	$0.00	$0.00	$0.00	0%
7.3.6 Grid Operations and Operating Protocols	$23,672.12	$11,437.07	-$12,235.05	-52%
7.3.7 Data Governance	$30,970.88	$18,673.81	-$12,297.07	-40%
7.3.8 Resource Allocation Methodology	$0.00	$1,485.83	$1,485.83	0%
7.3.9 Emergency Planning and Preparedness	$8,848.44	$2,765.56	-$6,082.89	-69%
7.3.10 Stakeholder Cooperation and Community Engagement	$5,363.74	$5,404.77	$41.03	1%
Totals	**$560,557.83**	**$441,819.87**	**-$118,738.19**	**-21%**

Table 54: Summary of 2022 WMP O&M Expenditure (Thousands of Dollars)

Initiative Category	O&M Planned	O&M Actual	O&M Change	O&M Change %
7.3.1 Risk Assessment and Mapping	$3,697.20	$3,734.87	$37.67	1%
7.3.2 Situational Awareness and Forecasting	$2,353.91	$1,818.23	-$535.68	-23%
7.3.3 Grid Design and System Hardening	$32,227.07	$29,178.41	-$3,048.64	-9%
7.3.4 Asset Management and Inspections	$57,016.82	$50,243.98	-$6,772.84	-12%
7.3.5 Vegetation Management and Inspections	$68,877.01	$74,648.27	$5,771.26	8%
7.3.6 Grid Operations and Operating Protocols	$12,554.40	$10,470.12	-$2,084.28	-17%
7.3.7 Data Governance	$1,490.26	$1,304.99	-$185.27	-12%
7.3.8 Resource Allocation Methodology	$4,785.88	$3,966.63	-$819.25	-17%
7.3.9 Emergency Planning and Preparedness	$15,170.40	$12,381.77	-$2,788.63	-18%
7.3.10 Stakeholder Cooperation and Community Engagement	$11,662.26	$9,876.03	-$1,786.22	-15%
Totals	**$209,835.21**	**$197,623.30**	**-$12,211.88**	**-6%**

3.2.2 IE Analysis of Underspend Expenditure

The IE team further evaluated the Capital and O&M expenditure information in SDG&E's 2022 WMP ARC document, dated April 3, 2023, for all WMP initiatives and summarized its findings based on the IE underspent categories shown below and in Figure 22 – Breakdown of Capital & O&M by IE Underspend Categories:

- $0M - $1M
- $1M - $5M
- $5M - $10M
- $10M - $20M
- $20M - $50M
- More than $50M

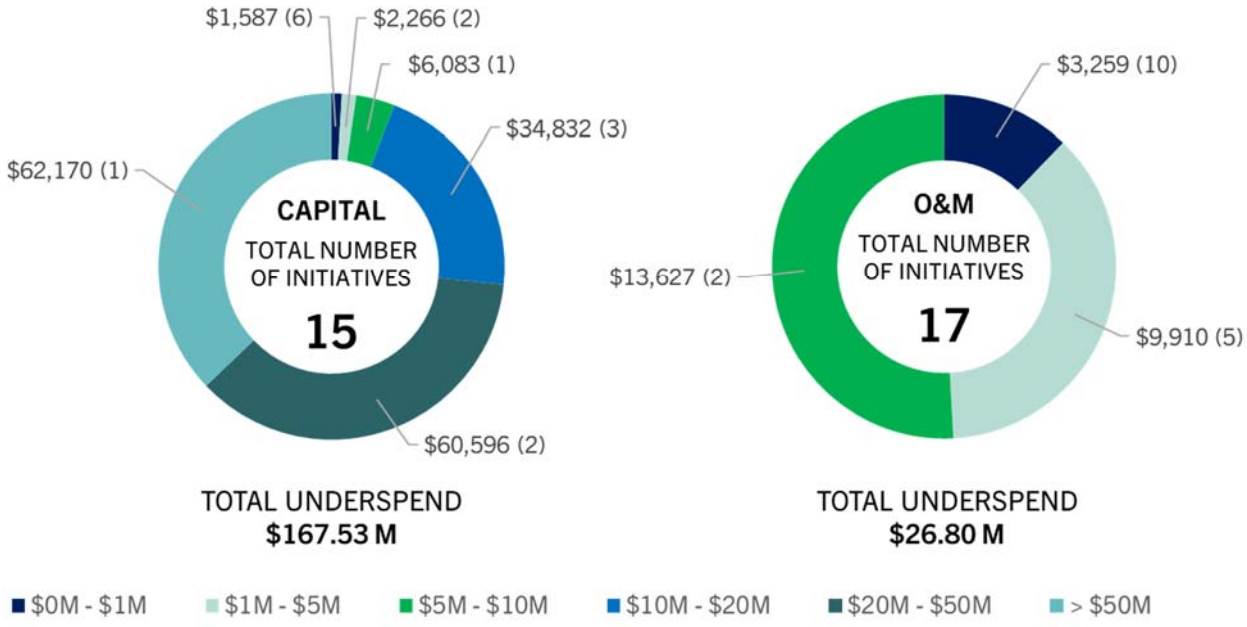


Figure 22: Breakdown of Capital and O&M by IE Underspend Categories (Thousands of Dollars)

Note: The amounts shown in the figure above are in thousands of dollars and are the sum of underspend of all initiatives under each IE Underspend Category (the negative sign has been omitted for illustration purposes). Additionally, the count/number of all initiatives under each IE Underspend Category is shown in parenthesis (next to the sum). The IE did not include any initiatives with a variance amount equal to $0.

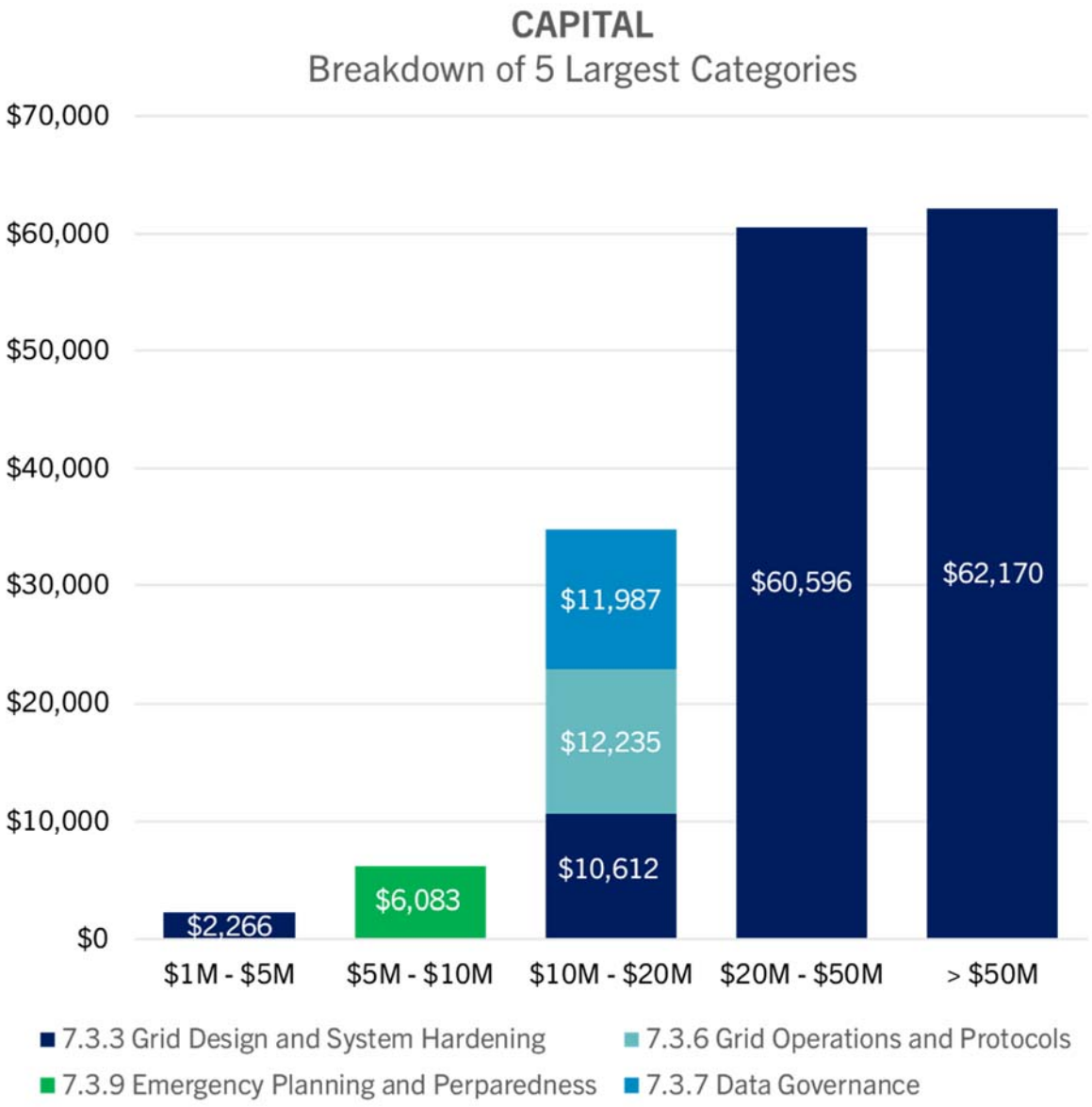


Figure 23: Breakdown of Capital for Top 5 IE Underspend Categories (Thousands of Dollars)

Table 55: Summary of Capital for Top 5 IE Underspend Categories (Thousands of Dollars)

Initiative Category	2022 Initiative Number	Initiative Name	Capital Change	Capital Change %
Grid Design and System Hardening	7.3.3.3	Covered conductor installation	-$35,131.35	-28%
Grid Design and System Hardening	7.3.3.8.2	Microgrids	-$10,611.78	-80%
Grid Design and System Hardening	7.3.3.16	Undergrounding of electric lines and/or equipment	-$62,169.57	-33%
Grid Design and System Hardening	7.3.3.17.2	Overhead transmission fire hardening (Distribution Underbuilt)	-$1,035.50	-24%
Grid Design and System Hardening	7.3.3.18.1	Distribution Communications Reliability Improvements (LTE)	-$25,464.28	-36%
Grid Design and System Hardening	7.3.3.18.3	Avian Mitigation	-$1,230.39	-40%
Grid Operations and Protocols	7.3.6.7.1	Aviation Firefighting Program	-$12,235.05	-52%
Data Governance	7.3.7.1	Centralized repository for data	-$11,984.74	-40%
Emergency Planning and Preparedness	7.3.9.2	Community outreach, public awareness, and communications efforts	-$6,082.89	-69%

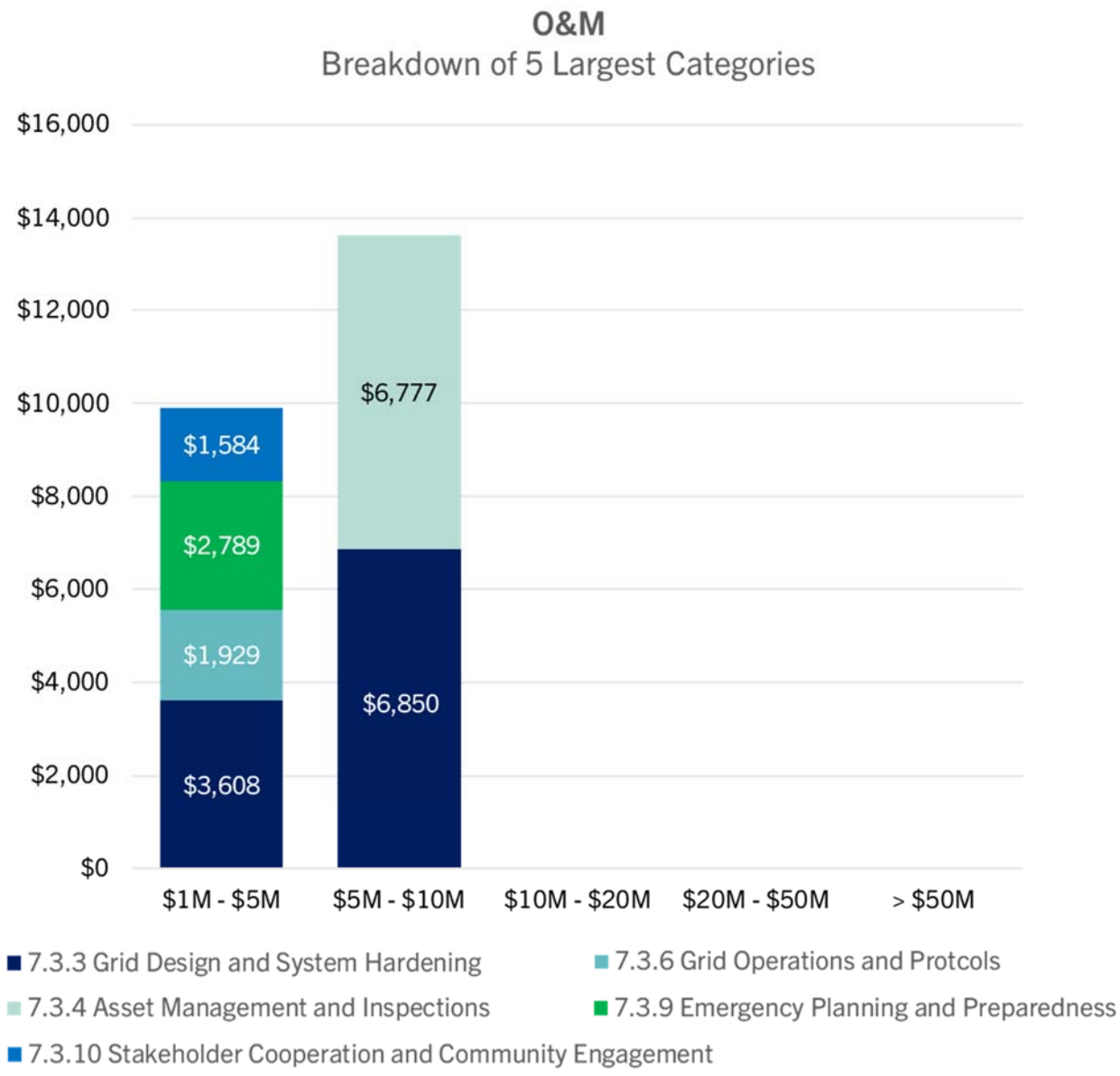


Figure 24: Breakdown of O&M for Top 5 IE Underspend Categories (Thousands of Dollars)

Table 56: Breakdown of O&M for Top 5 IE Underspend Categories (Thousands of Dollars)

Initiative Category	2022 Initiative Number	Initiative Name	O&M Change	O&M Change %
Grid Design and System Hardening	7.3.3.10	Maintenance, repair, and replacement of connectors, including hotline clamps	-$1,584.47	-14%
Grid Design and System Hardening	7.3.3.11.1	Generator Grant Programs	-$6,849.60	-66%
Grid Design and System Hardening	7.3.3.11.3	Generator Assistance Programs	-$1,069.01	-58%
Asset Management and Inspections	7.3.4.9.2	Drone assessments of distribution infrastructure	-$6,777.29	-13%
Grid Operations and Protocols	7.3.6.7.1	Aviation Firefighting Program	-$1,928.55	-21%
Emergency Planning and Preparedness	7.3.9.2	Community outreach, public awareness, and communications efforts	-$2,788.63	-18%
Stakeholder Cooperation and Community Engagement	7.3.10.1.1	PSPS communication practices	-$1,584.47	-14%

3.2.3 Summary of Underspend Instances

The following table summarizes every instance of SDG&E's underspending for the 2022 WMP Capital and O&M based on the information provided in 2022 WMP ARC document, dated April 3, 2023.

Under the "Funding Discrepancy Amount" column, the IE has noted that for every initiative with an underspend record for Expense or Capital, or both, one of the following statuses for Expense or Capital spending is shown: An underspend, an overspend, or No spend/planned amount.

Under the "Detail on Funding Discrepancy" column, the IE provided detail on the amount of the underspend based on the actual costs SDG&E shared, the total planned amount for Capital or O&M, and the percentage of the variance to the total amount initially allocated for the initiative.

Additionally, the IE included SDG&E's explanations for variances that are a decrease from the 2022 WMP planned budget for the initiative.

Table 57: 2022 WMP Funding Verification Summary
(Thousands of Dollars)

Initiative Category	2022 Initiative Number	Initiative Number	Initiative Name	2022 WMP Page Number	Funding Discrepancy Amount	Detail on Funding Discrepancy
Risk Assessment and Mapping	7.3.1.1	WMP.442	A summarized risk map that shows the overall ignition probability and estimated wildfire consequence along the electric lines and equipment	196	O&M Overspend Capital Underspend: Variance Amount $0M - $1M	SDG&E's 2022 WMP ARC, dated April 3, 2023, spend did not match Appendix A, labeled ARC Summary, showing SDG&E did not spend $242.55K of the planned $242.55k of the total Capital amount initially allocated for this initiative. However, the WMP ARC, page 6 shows an overspend $1,243.28 above the planned $242.55k of the total Capital amount initially allocated for this initiative.
Situational Awareness and Forecasting	7.3.2.1	WMP.447	Advanced weather monitoring and weather stations	202	O&M Overspend Capital Overspend	
Situational Awareness	7.3.2.2.1	WMP.970	Air Quality Index	203	O&M Overspend	

and Forecasting					Capital Overspend	
Situational Awareness and Forecasting	7.3.2.2.2	WMP.971	Camera Network (Satellite-Based Remote Sensing)	202	O&M Overspend Capital Overspend	
Situational Awareness and Forecasting	7.3.2.3	WMP.449	Wireless Fault Indicators	205	O&M Overspend Capital Overspend	
Situational Awareness and Forecasting	7.3.2.4.1	WMP.450	Fire potential index	207	O&M Underspend: Variance Amount $0M - $1M Capital Underspend: Variance Amount $0M - $1M	SDG&E did not spend $535.7K of the planned $2.35M, 23% of the total O&M amount initially allocated for this initiative. The underspend in O&M costs are due to software invoicing being delayed until 2023. SDG&E did not spend $567.9K of the planned $2.2M, 26% of the total Capital amount initially allocated for this initiative. The underspend in Capital costs are due to software invoicing being delayed until 2023.

Situational Awareness and Forecasting	7.3.2.4.2	WMP.540	Santa Ana Wildfire Threat Index	208	O&M Overspend Capital Overspend	
Situational Awareness and Forecasting	7.3.2.4.3	WMP.541	High-Performance Computing Infrastructure	208	O&M Overspend Capital Underspend: Variance Amount $0M - $1M	SDG&E did not spend $275.7K of the planned $5.5M, 5% of the total Capital amount initially allocated for this initiative.
Situational Awareness and Forecasting	7.3.2.5	WMP.451	Personnel monitoring areas of electric lines and equipment in elevated fire risk conditions	209	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.1	WMP.453	Capacitor maintenance and replacement program	212	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.3	WMP.455	Covered conductor installation	213	O&M Overspend Capital Underspend: Variance Amount $20M - $50M	SDG&E did not spend $35.13M of the planned $124.64M, 28% of the total Capital amount initially allocated for this initiative. The underspend of capital was due to completing work more efficiently that originally forecasted. SDG&E was able to complete 100% of the target work

						while spending less than originally forecasted. The overspend in O&M was due to improved identification of O&M costs in the source system since the initial spend was projected.
Grid Design and System Hardening	7.3.3.6	WMP.458	Distribution pole replacement and reinforcement, including with composite poles	216	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.7	WMP.459	Expulsion fuse replacement	217	O&M Overspend Capital Underspend: Variance Amount $0M - $1M	SDG&E did not spend $102.6K of the planned $0.73M, 14% of the total Capital amount initially allocated for this initiative.
Grid Design and System Hardening	7.3.3.8.1	WMP.461	PSPS sectionalizing enhancements	218	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.8.2	WMP.462	Microgrids	219	O&M Underspend: Variance Amount $0M - $1M Capital Underspend: Variance Amount $10M - $20M	SDG&E did not spend $303.3K of the planned $1.61M, 19% of the total O&M amount initially allocated for this initiative. Delays have shifted spend from 2022 into 2023.

						SDG&E did not spend $10.61M of the planned $13.31M, 80% of the total Capital amount initially allocated for this initiative. Delays have shifted spend from 2022 into 2023.
Grid Design and System Hardening	7.3.3.9	WMP.463	Installation of system automation equipment	221	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.10	WMP.464	Maintenance, repair, and replacement of connectors, including hotline clamps	223	O&M Underspend: Variance Amount $1M - $5M Capital Overspend	SDG&E did not spend $2.54M of the planned $4.32M, 59% of the total O&M amount initially allocated for this initiative. The reduced spend can be attributed to efficiencies gained in the construction process. SDG&E condensed the work of three budgets into one work mobilization resulting in savings on labor and equipment.
Grid Design and System Hardening	7.3.3.11.1	WMP.466	Generator Grant Programs	225	O&M Underspend: Variance	SDG&E did not spend $6.85M of the planned

					Amount $5M - $10M Capital Overspend	$10.4M, 66% of the total O&M amount initially allocated for this initiative. SDG&E had lower than expected expenditures associated with the Generator Grant Program in 2022 due to the revised target submitted as part of SDG&E's Change Order Report filed on October 14, 2022.
Grid Design and System Hardening	7.3.3.11.2	WMP.468	Standby Power Programs	226	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.11.3	WMP.467	Generator Assistance Programs	228	O&M Underspend: Variance Amount $1M - $5M Capital Overspend	SDG&E did not spend $1.07M of the planned $1.83M, 58% of the total O&M amount initially allocated for this initiative. SDG&E had lower-than-expected expenditures associated with the Generator Assistance Program in 2022 because SDG&E did not experience any PSPS events.

						The lack of PSPS activations drove participation in SDG&E's resiliency programs down in 2022.
Grid Design and System Hardening	7.3.3.16	WMP.473	Undergrounding of electric lines and/or equipment	230	O&M Underspend: Variance Amount $0M - $1M Capital Underspend: Variance Amount over $50M	SDG&E did not spend $873K of the planned $1.05M, 83% of the total O&M amount initially allocated for this initiative. Two primary factors resulted in SDG&E's reduced costs associated with strategic undergrounding. The first is that SDG&E was able to more efficiently construct the new underground circuits through development of new construction standards, including allowances for a shallower trench, which helped to reduce undergrounding construction costs on a per-mile basis. The second is that the projects completed in 2022 did not run into any subsurface

						conditions that required significant re-routes or alternate construction methods. SDG&E did not spend $62.17M of the planned $188.84M, 33% of the total Capital amount initially allocated for this initiative. Two primary factors resulted in SDG&E's reduced costs associated with strategic undergrounding. The first is that SDG&E was able to more efficiently construct the new underground circuits through development of new construction standards, including allowances for a shallower trench, which helped to reduce undergrounding construction costs on a per-mile basis. The second is that the projects completed in 2022 did not run into

						any subsurface conditions that required significant re-routes or alternate construction methods.
Grid Design and System Hardening	7.3.3.17.1	WMP.475	Traditional hardening distribution overhead system hardening	234	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.17.2	WMP.543	Overhead transmission fire hardening	235	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.17.2	WMP.544	Underground transmission fire hardening (Transmission)	235	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.17.2	WMP.545	Overhead transmission fire hardening (Distribution Underbuilt)	235	O&M Overspend Capital Underspend: Variance Amount $1M - $5M	SDG&E did not spend $1.04M of the planned $4.27M, 24% of the total Capital amount initially allocated for this initiative. The decreased expenditure is due to delays in construction and only partial completion of the targeted miles.
Grid Design and System Hardening	7.3.3.17.3	N/A	CNF MSUP Powerline Replacement	237	O&M Overspend	

			Program (Transmission)		Capital Overspend	
Grid Design and System Hardening	7.3.3.17.3	N/A	CNF (Distribution Underground)	237	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.17.3	N/A	CNF(Distribution Overhead)	237	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.18.1	WMP.549	Distribution Communications Reliability Improvements (LTE)	240	O&M Overspend Capital Underspend: Variance Amount $20M - $50M	SDG&E did not spend $25.46M of the planned $70.64M, 36% of the total Capital amount initially allocated for this initiative. The reduction in Capital expenditure is due to not receiving Spectrum License purchase resulting from Federal Communications Commission (FCC) delays. The unplanned O&M spend is due to unforeseen costs associated with software licensing and rent reclass at multiple sites.
Grid Design and System Hardening	7.3.3.18.2	WMP.550	Lightning arrestor removal and replacement	241	O&M Overspend	

					Capital Overspend	
Grid Design and System Hardening	7.3.3.18.3	WMP.972	Avian Mitigation	243	O&M Overspend Capital Underspend: Variance Amount $1M - $5M	SDG&E did not spend $1.23M of the planned $3.08M, 40% of the total Capital amount initially allocated for this initiative. The reduced Capital spend is due to a reduction in forecasted units to be completed for 2023 which led to decreased design and engineering costs in 2022. Minor unplanned O&M expenditures arose during the work performed in 2022.
Asset Management and Inspections	7.3.4.1	WMP.478	Detailed inspections of distribution electric lines and equipment	248	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.2	WMP.479	Detailed inspections of transmission electric lines and equipment	249	O&M Overspend Capital Underspend: Variance Amount $0M - $1M	SDG&E did not spend $86.3K of the planned $0.58M, 15% of the total Capital amount initially allocated for this initiative.
Asset Management	7.3.4.4	WMP.481	Infrared inspections of distribution	251	O&M Underspend: Variance	SDG&E did not spend $15.6K of the planned

and Inspections			electric lines and equipment		Amount $0M - $1M Capital Overspend	$0.17M, 9% of the total O&M amount initially allocated for this initiative.
Asset Management and Inspections	7.3.4.5	WMP.482	Infrared inspections of transmission electric lines and equipment	253	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.6	WMP.483	Intrusive Pole Inspections	255	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.7	WMP.484	LiDAR inspections of distribution electric lines and equipment	257	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.8	WMP.485	LiDAR inspections of transmission electric lines and equipment	258	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.9.1	WMP.551	HFTD Tier 3 distribution pole inspections	259	O&M Underspend: Variance Amount $0M - $1M Capital Overspend	SDG&E did not spend $41.7K of the planned $0.38M, 11% of the total O&M amount initially allocated for this initiative.
Asset Management and Inspections	7.3.4.9.2	WMP.552	Drone assessments of distribution infrastructure	261	O&M Underspend: Variance Amount $5M - $10M Capital Overspend	SDG&E did not spend $6.78M of the planned $52M, 13% of the total O&M amount initially allocated for this initiative.

Asset Management and Inspections	7.3.4.10.1	WMP.554	Drone Assessments of transmission Infrastructure	266	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.10.2	WMP.555	Additional Transmission Aerial 69kV Tier 3 Visual Inspection	268	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.11	WMP.488	Patrol inspections of distribution electric lines and equipment	270	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.12	WMP.489	Patrol inspections of transmission electric lines and equipment	271	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.14	WMP.491	Quality assurance / quality control of inspections	272	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.15	WMP.492	Substation inspections	280	O&M Overspend Capital Overspend	
Vegetation Management and Inspections	7.3.5.1	WMP.493	Additional efforts to manage community and environmental impacts	280	O&M Underspend: Variance Amount $0M - $1M Capital Overspend	SDG&E did not spend $127.8K of the planned $1M, 13% of the total O&M amount initially allocated for this initiative.
Vegetation Management and Inspections	7.3.5.2	WMP.494	Detailed inspections of vegetation around distribution electric	283	O&M Overspend	

			lines and equipment		Capital Overspend	
Vegetation Management and Inspections	7.3.5.5	WMP.497	Fuel management and reduction of "slash" from vegetation management activities	288	O&M Overspend Capital Overspend	
Vegetation Management and Inspections	7.3.5.7	WMP.499	LiDAR inspections of vegetation around distribution electric lines and equipment	292	O&M Overspend Capital Overspend	
Vegetation Management and Inspections	7.3.5.9	WMP.501	Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations	292	O&M Overspend Capital Overspend	
Vegetation Management and Inspections	7.3.5.13	WMP.505	Quality assurance / quality control of vegetation inspections	293	O&M Overspend Capital Overspend	
Vegetation Management and Inspections	7.3.5.14	WMP.506	Recruiting and training vegetation management personnel	294	O&M Overspend Capital Overspend	
Vegetation Management and Inspections	7.3.5.15	WMP.507	Remediation of at-risk species	296	O&M Overspend Capital Overspend	
Vegetation Management and Inspections	7.3.5.16	WMP.508	Removal and remediation of trees with strike potential to electric lines and equipment	299	O&M Overspend Capital Overspend	

Vegetation Management and Inspections	7.3.5.19	WMP.511	Vegetation inventory system	300	O&M Overspend Capital Overspend	
Vegetation Management and Inspections	7.3.5.20	WMP.512	Vegetation management to achieve clearances around electric lines and equipment	302	O&M Overspend Capital Overspend	
Grid Operations and Protocols	7.3.6.3	WMP.514	Crew-accompanying ignition prevention and suppression resources and services	307	O&M Underspend: Variance Amount $0M - $1M Capital Overspend	SDG&E did not spend $155.7K of the planned $3.23M, -5% of the total O&M amount initially allocated for this initiative.
Grid Operations and Protocols	7.3.6.4	WMP.515	Personnel work procedures and training in conditions of elevated fire risk	308	O&M Overspend Capital Overspend	
Grid Operations and Protocols	7.3.6.5	WMP.516	Protocols for PSPS re-energization	309	O&M Overspend Capital Overspend	
Grid Operations and Protocols	7.3.6.6	WMP.517	PSPS events and mitigation of PSPS impacts	311	O&M Overspend Capital Overspend	
Grid Operations and Protocols	7.3.6.7.1	WMP.557	Aviation Firefighting Program	312	O&M Underspend: Variance Amount $1M - $5M Capital Underspend:	SDG&E did not spend $1.93M of the planned $9.32M, 21% of the total O&M amount initially allocated for this initiative.

					Variance Amount $10M - $20M	O&M decreased expenditure is due primarily to fewer flight hours than expected. SDG&E did not spend $12.24M of the planned $23.67M, 52% of the total Capital amount initially allocated for this initiative. The underspend in Capital is due to delays in obtaining FAA approval of materials and kits.
Data Governance	7.3.7.1	WMP.519	Centralized repository for data	315	O&M Underspend: Variance Amount $0M - $1M Capital Underspend: Variance Amount $10M - $20M	SDG&E did not spend $185.3K of the planned $1.49M, 12% of the total O&M amount initially allocated for this initiative. SDG&E did not spend $11.98M of the planned $26.98M, 40% of the total Capital amount initially allocated for this initiative. The Capital expenditure decreased due to more accurate

						allocation of costs for the Enterprise Asset Management Platform (now known as Asset 360), delayed go-live date for Investment Prioritization (now known as Investment Prioritization & Optimization), and a reduction of scope (WMP advanced analytics).
Data Governance	7.3.7.2	WMP.520	Collaborative research on utility ignition and/or wildfire	317	O&M Overspend Capital Overspend	
Data Governance	7.3.7.3	N/A	Documentation and disclosure of wildfire-related data and algorithms	318	O&M Overspend Capital Underspend: Variance Amount $0M - $1M	SDG&E did not spend $312.3K of the planned $3.99M, 8% of the total Capital amount initially allocated for this initiative.
Data Governance	7.3.7.4.1	WMP.558	Ignition management program	318	O&M Overspend Capital Overspend	
Data Governance	7.3.7.4.2	WMP.559	Reliability database	319	O&M Overspend Capital Overspend	

Resource Allocation Methodology	7.3.8.1	WMP.523	Allocation methodology development and application	320	O&M Underspend: Variance Amount $0M - $1M Capital Overspend	SDG&E did not spend $819.3K of the planned $4.79M, 17% of the total O&M amount initially allocated for this initiative.
Resource Allocation Methodology	7.3.8.3	WMP.523	Risk spend efficiency analysis - not include PSPS	324	O&M Overspend Capital Overspend	
Emergency Planning and Preparedness	7.3.9.1	WMP.526	Adequate and trained workforce for service restoration	325	O&M Overspend Capital Overspend	
Emergency Planning and Preparedness	7.3.9.2	WMP.527	Community outreach, public awareness, and communications efforts	326	O&M Underspend: Variance Amount $1M - $5M Capital Underspend: Variance Amount $5M - $10M	SDG&E did not spend $2.79M of the planned $15.17M, 18% of the total O&M amount initially allocated for this initiative. SDG&E did not spend $6.08M of the planned $8.85M, 69% of the total Capital amount initially allocated for this initiative. The underspend in Capital is due to delayed project starts for enhancing the Emergency Notification

						System (ENS). SDG&E is exploring additional platforms that can assist with accessible communications and is engaged with stakeholders and subject matter experts. This is an ongoing effort with expected project start in 2023.
Emergency Planning and Preparedness	7.3.9.3	WMP.1007	Customer support in emergencies	331	O&M Overspend Capital Overspend	
Emergency Planning and Preparedness	7.3.9.4	WMP.1008	Disaster and emergency preparedness plan	335	O&M Overspend Capital Overspend	
Emergency Planning and Preparedness	7.3.9.5	WMP.1009	Preparedness and planning for service restoration	336	O&M Overspend Capital Overspend	
Emergency Planning and Preparedness	7.3.9.6	WMP.1010	Protocols in place to learn from wildfire events	338	O&M Overspend Capital Overspend	
Stakeholder Cooperation and Community Engagement	7.3.10.1	WMP.532	Community outreach, public awareness, and communications efforts (emergency)	340	O&M Underspend: Variance Amount $0M - $1M	SDG&E did not spend $201.8K of the planned $0.6M, 34% of the total O&M amount initially allocated for this initiative.

					Capital Overspend	
Stakeholder Cooperation and Community Engagement	7.3.10.1.1	WMP.563	PSPS communication practices	342	O&M Underspend: Variance Amount $1M - $5M Capital Overspend	SDG&E did not spend $1.58M of the planned $11.06M, 14% of the total O&M amount initially allocated for this initiative.
Stakeholder Cooperation and Community Engagement	7.3.10.3	WMP.1011	Cooperation with suppression agencies	348	O&M Overspend Capital Overspend	

3.3Verification of QA/QC Programs

Table 58: 2022 QA/QC Initiative Verification Summary Table

Initiative Name	Initiative Validation	Finding
7.3.3.1 - WMP.442 - A summarized risk map that shows the overall ignition probability and estimated wildfire consequence along the electric lines and equipment	▪ Documented in SDG&E's Response to DR005	Activity Validated
7.3.2.2.2 - WMP.447 - Advanced weather monitoring and weather stations	▪ Documented in SDG&E's Response to DR006	N/A
7.3.2.3 - WMP.449 - Wireless Fault Indicators	▪ Documented per SDG&E's Response to Data Request DR010 in Attachment SDG&E Response IE-010 referencing the SDG&E DR004 Response Attachment SDGE_DR004 C2_052523_QAQC identifies the processes related to Portfolio & Project Management QA/QC	Activity Validated
7.3.2.4.1 - WMP.450 - Fire potential index	▪ Documented in SDG&E's Response to DR006	Activity Validated
7.3.2.5 - WMP.451 - Personnel monitoring areas of electric lines and equipment in elevated fire risk conditions	▪ Documented in SDG&E's Response to DR006	Activity Validated
7.3.3.1 - WMP.453 - Capacitor maintenance and replacement program	▪ Documented in SDG&E's Response to DR003	Activity Validated
7.3.3.3 - WMP.455 - Covered conductor installation	▪ Documented per SDG&E's Response to Data Request in Attachment SDGE_DR004 C2_052523_QAQC which identifies the processes related to Portfolio & Project Management QA/QC	Activity Validated

7.3.3.6 - WMP.458 - Distribution pole replacement and reinforcement, including with composite poles	▪ Documented per SDG&E's Response to Data Request DR004 Attachment ESP 612 "District Internal Quality Assurance Audits"	Activity Validated
7.3.3.7 - WMP.459 - Expulsion fuse replacement	▪ Documented per SDG&E's Response to Data Request DR010 in Attachment SDG&E Response IE-010 referencing the SDG&E DR004 Response Attachment SDGE_DR004 C2_052523_QAQC identifies the processes related to Portfolio & Project Management QA/QC	Activity Validated
7.3.3.8.1 - WMP.461 - PSPS sectionalizing enhancements	▪ Documented per SDG&E's Response to Data Request in Attachment SDGE_DR004 C2_052523_QAQC which identifies the processes related to Portfolio & Project Management QA/QC	Activity Validated
7.3.3.8.2 - WMP.462 - Microgrids	▪ Documented in SDG&E's Response to DR003	Activity Validated
7.3.3.9 - WMP.463 - Installation of system automation equipment	▪ Documented per SDG&E's Response to Data Request in Attachment SDGE_DR004 C2_052523_QAQC which identifies the processes related to Portfolio & Project Management QA/QC	Activity Validated
7.3.3.10 - WMP.464 - Maintenance, repair, and replacement of connectors, including hotline clamps	▪ Documented per SDG&E's Response to Data Request DR010 in Attachment SDG&E Response IE-010 referencing the SDG&E DR004 Response Attachment SDGE_DR004 C2_052523_QAQC identifies the processes related to Portfolio & Project Management QA/QC	Activity Validated
7.3.3.11.1 - WMP.466 - Generator Grant Programs	▪ Documented in SDG&E's Response to DR003	Activity Validated
7.3.3.11.3 - WMP.467 - Generator Assistance Programs	▪ Documented in SDG&E's Response to DR003	Activity Validated
7.3.3.11.2 - WMP.468 - Standby Power Programs	▪ Documented in SDG&E's Response to DR003	Activity Validated

7.3.3.16 - WMP.473 - Undergrounding of electric lines and/or equipment	▪ SME Interview Conducted Per Appendix D Item No. 14	Activity Validated
7.3.3.17.1 - WMP.475 - Traditional hardening distribution overhead system hardening	▪ Documented per SDG&E's Response to Data Request in Attachment SDGE_DR004 C2_052523_QAQC which identifies the processes related to Portfolio & Project Management QA/QC	Activity Validated
7.3.4.1 - WMP.478 - Detailed inspections of distribution electric lines and equipment	▪ Documented in SDG&E's Response to DR002	Activity Validated
7.3.4.2 - WMP.479 - Detailed inspections of transmission electric lines and equipment	▪ Documented in SDG&E's Response to DR002	Activity Validated
7.3.4.4 - WMP.481 - Infrared inspections of distribution electric lines and equipment	▪ Per SDG&E's Response to Data Request DR010 in Attachment SDGE Response IE-010	N/A
7.3.4.5 - WMP.482 - Infrared inspections of transmission electric lines and equipment	▪ Documented in SDG&E's Response to Data Request DR010 in Attachment SDGE Response IE-010	Activity Validated
7.3.4.6 - WMP.483 - Intrusive pole inspections	▪ Documented in SDG&E's Response to DR002	Activity Validated
7.3.4.7 - WMP.484 - LiDAR inspections of distribution electric lines and equipment	▪ Documented per SDG&E's Response to Data Request DR010 in Attachment SDG&E Response IE-010 referencing the SDG&E DR004 Response Attachment reference the third-party contractor standards services agreement for "LiDAR in HFTD – QA/QC Services."	Activity Validated
7.3.4.8 - WMP.485 - LiDAR inspections of transmission electric lines and equipment	▪ Documented per SDG&E's Response to Data Request DR010 in Attachment SDG&E Response IE-010 referencing the SDG&E DR004 Response Attachment reference the third-party contractor standards	Activity Validated

	services agreement for "LiDAR in HFTD – QA/QC Services."	
7.3.4.11 - WMP.488 - Patrol inspections of distribution electric lines and equipment	▪ Documented in SDG&E's Response to DR002	Activity Validated
7.3.4.12 - WMP.489 - Patrol inspections of transmission electric lines and equipment	▪ Documented in SDG&E's Response to DR002	N/A
7.3.4.14 - WMP.491 - Quality assurance / quality control of inspections	▪ Documented in SDG&E's Response to DR002	Activity Validated
7.3.4.15 - WMP.492 - Substation inspections	▪ Documented in SDG&E's Response to DR002	N/A
7.3.5.1 - WMP.493 - Additional efforts to manage community and environmental impacts	▪ Documented in SDG&E's Response to DR008	Activity Validated
7.3.5.2 - WMP.494 - Detailed inspections of vegetation around distribution electric lines and equipment	▪ Documented per SDG&E's Response to Data Request DR010 in Attachment SDGE Response IE-010 with Vegetation Management QA/QC process shown within Section 3.1.3 Large Volume Quantifiable Goal/Target – Not Field Verifiable.	Activity Validated
7.3.5.5 - WMP.497 - Fuel management and reduction of "slash" from vegetation management activities	▪ Documented in SDG&E's Response to DR002	Activity Validated
7.3.5.7 - WMP.499 - LiDAR inspections of vegetation around distribution electric lines and equipment	▪ Documented per SDG&E's Response to Data Request DR010 in Attachment SDG&E Response IE-010 referencing the SDG&E DR004 Response Attachment reference the third-party contractor standards services agreement for "LiDAR in HFTD – QA/QC Services."	Activity Validated
7.3.5.9 - WMP.501 - Other discretionary inspection of	▪ Documented per SDG&E's Response to Data Request DR010 in	Activity Validated

distribution electric lines and equipment, beyond inspections mandated by rules and regulations	Attachment SDGE Response IE-010 with Vegetation Management QA/QC process shown within Section 3.1.3 Large Volume Quantifiable Goal/Target – Not Field Verifiable.	
7.5.3.13 - WMP.505 - Quality assurance / quality control of vegetation inspections	▪ Per SDG&E's Response to Data Request DR010 in Attachment SDGE Response IE-010	N/A
7.3.5.14 - WMP.506 - Recruiting and training of vegetation management personnel	▪ Per SDG&E's Response to Data Request DR004 in Attachment SDGE Response IE-004	N/A
7.3.5.15 - WMP.507 - Remediation of at-risk species	▪ Per SDG&E's Response to Data Request DR004 in Attachment SDGE Response IE-004	N/A
7.5.3.16 - WMP.508 - Removal and remediation of trees with strike potential to electric lines and equipment	▪ Per SDG&E's Response to Data Request DR010 in Attachment SDGE Response IE-010	Activity Validated
7.3.5.19 - WMP.511 - Vegetation inventory system	▪ Documentation of QA/QC related to this initiative was not included in SDG&E's Response in Data Request DR004	N/A
7.3.5.20 - WMP.512 - Vegetation management to achieve clearances around electric lines and equipment	▪ Per SDG&E's Response to Data Request DR010 in Attachment SDGE Response IE-010	Activity Validated
7.3.6.3 - WMP.514 - Crew-accompanying ignition prevention and suppression resources and services	▪ Documented in SDG&E's Response to DR007	N/A
7.3.6.4 - WMP.515 - Personnel work procedures and training in conditions of elevated fire risk	▪ Documented in SDG&E's Response to DR009	Activity Validated

7.3.6.5 - WMP.516 - Protocols for PSPS re-energization	▪ Documented in SDG&E's Response to DR009	N/A
7.3.6.6 - WMP.517 - PSPS events and mitigation of PSPS impacts	▪ Per SDG&E 2022 WMP Update, mitigation of PSPS Impacts is addressed in multiple initiatives.	N/A
7.3.7.1 - WMP.519 - Centralized repository for data	▪ Per SDG&E's Response in Data Request DR004, Attachment SDGE Response IE-004 and DG Framework_MASTER_v6.0 draft	N/A
7.3.7.2 - WMP.520 - Collaborative research on utility ignition and/or wildfire	▪ Not applicable to this initiative	N/A
7.3.8.1 - WMP.523 - Allocation methodology development and application	▪ Documented in SDG&E's Response to DR007	Activity Validated
7.3.9.1 - WMP.526 - Adequate and trained workforce for service restoration	▪ Documented in SDG&E's Response to DR009	Activity Validated
7.3.9.2 - WMP.527 - Community outreach, public awareness, and communications efforts	▪ Documented in SDG&E's Response to DR007	N/A
7.3.10.1 - WMP.532 - Community outreach, public awareness, and communications efforts	▪ Documented in SDG&E's Response to DR007	Activity Validated
7.3.2.4.2 - WMP.540 - Santa Ana wildfire threat index	▪ Documented in SDG&E's Response to DR006	Activity Validated
7.3.2.4.3 - WMP.541 - High-performance computing infrastructure	▪ Documented in SDG&E's Response to DR006	Activity Validated
7.3.3.17.2.1 - WMP.543 - Overhead transmission fire hardening (Transmission)	▪ Documented per SDG&E's Response to Data Request in Attachment SDGE_DR004 C2_052523_QAQC which identifies the processes related to Portfolio & Project Management QA/QC	Activity Validated

7.3.3.17.2.2 - WMP.544 - Underground transmission fire hardening (Transmission)	▪ Documentation of QA/QC related to this initiative was not included in SDG&E's Response in Data Request DR004	N/A
7.3.3.17.2.3 - WMP.545 - Overhead transmission fire hardening (Distribution Underbuilt)	▪ Documented per SDG&E's Response to Data Request in Attachment SDGE_DR004 C2_052523_QAQC which identifies the processes related to Portfolio & Project Management QA/QC	Activity Validated
7.3.3.17.18.1 - WMP.549 - Distribution Communications Reliability Improvements (LTE)	▪ Documented in SDG&E's Response to DR003	Activity Validated
7.3.3.17.18.2 - WMP.550 - Lightning arrestor removal and replacement	▪ Documented per SDG&E's Response to Data Request DR010 in Attachment SDG&E Response IE-010 referencing the SDG&E DR004 Response Attachment SDGE_DR004 C2_052523_QAQC identifies the processes related to Portfolio & Project Management QA/QC	Activity Validated
7.3.4.9.1 - WMP.551 - HFTD Tier 3 distribution pole inspections	▪ Documented in SDG&E's Response to DR002	Activity Validated
7.3.4.9.2 - WMP.552 - Drone assessments of distribution infrastructure	▪ Per SDG&E's Response to Data Request DR010 in Attachment SDGE Response IE-010	Activity Validated
7.3.4.10.1 - WMP.554 - Drone assessment of transmission	▪ Per SDG&E's Response to Data Request DR010 in Attachment SDGE Response IE-010	Activity Validated
7.3.4.10.2 - WMP.555 - Additional Transmission Aerial 69kV Tier 3 Visual Inspection	▪ Per SDG&E's Response to Data Request DR010 in Attachment SDGE Response IE-010	Activity Validated
7.3.6.7.1 - WMP.557 - Aviation firefighting program	▪ Documented in SDG&E's Response to DR007	N/A
7.3.7.4.1 - WMP.558 - Ignition management program	▪ Documented in SDG&E's Response in Data Request DR004, Attachment SDGE Response IE-004	Activity Validated

7.3.7.4.2 - WMP.559 - Reliability database	▪ Documented in SDG&E's Response in Data Request DR004, Attachment SDGE Response IE-004 and DR-004 WMP.559 SAIDIDAT+Support_QA_QC.msg	Activity Validated
7.3.10.1 - WMP.563 - PSPS communication practices	▪ Documented in SDG&E's Response to DR007	N/A
7.3.2.2.1 - WMP.970 - Environmental monitoring System	▪ Documented in SDG&E's Response to DR006	N/A
7.3.2.2.2 - WMP.971 - Satellite-based remote sensing	▪ Documented in SDG&E's Response to DR006	Activity Validated
7.3.3.17.18.3 - WMP.972 - Avian Mitigation	▪ Documented per SDG&E's Response to Data Request DR010 in Attachment SDG&E Response IE-010 referencing the SDG&E DR004 Response Attachment SDGE_DR004 C2_052523_QAQC identifies the processes related to Portfolio & Project Management QA/QC	Activity Validated
7.3.9.3 - WMP.1007 - Customer support in emergencies	▪ Documented in SDG&E's Response to DR009	N/A
7.3.9.4 - WMP.1008 - Disaster and emergency preparedness plan	▪ Documented in SDG&E's Response to DR009	N/A
7.3.9.5 - WMP.1009 - Preparedness and planning for service restoration	▪ Documented in SDG&E's Response to DR009	N/A
7.3.9.6 - WMP.1010 - Protocols in place to learn from wildfire events	▪ Documented in SDG&E's Response to DR009	Activity Validated
7.3.10.3 - WMP.1011 - Cooperation with suppression agencies	▪ Documented in SDG&E's Response to DR007	N/A

4. CONCLUSION

Per the IE Findings in Appendix F, SDG&E has completed and has ongoing operations for the WMP programs outlined in the SDG&E approved 2022 WMP. Activities and initiatives and their findings are detailed in the Appendices.

APPENDICES

APPENDICES

Appendix A – List of 2022 WMP Activities

SOW Category	2022 WMP Activities	WMP Category	2022 Initiative No.	Initiative Tracking ID	Utility Initiative Name	Initiative Activity
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Asset Management & Inspections	7.3.4.1	WMP.478	Detailed inspections of distribution electric lines and equipment	Detailed inspections of distribution electric lines and equipment
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Asset Management & Inspections	7.3.4.10.1	WMP.554	Drone assessment of transmission	Drone assessment of transmission
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Asset Management & Inspections	7.3.4.10.2	WMP.555	Additional Transmission Aerial 69kV Tier 3 Visual Inspection	Additional Transmission Aerial 69kV Tier 3 Visual Inspection
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Asset Management & Inspections	7.3.4.11	WMP.488	Patrol inspections of distribution electric lines and equipment	Patrol inspections of distribution electric lines and equipment
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Asset Management & Inspections	7.3.4.12	WMP.489	Patrol inspections of transmission electric lines and equipment	Patrol inspections of transmission electric lines and equipment
WMP Activity Completion	d. Qualitative Goal/Target	Asset Management & Inspections	7.3.4.14	WMP.491	Quality assurance / quality control of inspections	Quality assurance / quality control of inspections
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Asset Management & Inspections	7.3.4.15	WMP.492	Substation inspections	Substation inspections
WMP Activity	b. Large Volume Quantifiable	Asset Management &	7.3.4.2	WMP.479	Detailed inspections of transmission electric lines and equipment	Detailed inspections of transmission electric lines and

Completion	Goal/Target – Not Field Verifiable	Inspections				equipment
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Asset Management & Inspections	7.3.4.4	WMP.481	Infrared inspections of distribution electric lines and equipment	Infrared inspections of distribution electric lines and equipment
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Asset Management & Inspections	7.3.4.5	WMP.482	Infrared inspections of transmission electric lines and equipment	Infrared inspections of transmission electric lines and equipment
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Asset Management & Inspections	7.3.4.6	WMP.483	Intrusive pole inspections	Intrusive pole inspections
WMP Activity Completion	d. Qualitative Goal/Target	Asset Management & Inspections	7.3.4.7	WMP.484	LiDAR inspections of distribution electric lines and equipment	LiDAR inspections of distribution electric lines and equipment
WMP Activity Completion	d. Qualitative Goal/Target	Asset Management & Inspections	7.3.4.8	WMP.485	LiDAR inspections of transmission electric lines and equipment	LiDAR inspections of transmission electric lines and equipment
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Asset Management & Inspections	7.3.4.9.1	WMP.551	HFTD Tier 3 distribution pole inspections	HFTD Tier 3 distribution pole inspections
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Asset Management & Inspections	7.3.4.9.2	WMP.552	Drone assessments of distribution infrastructure	Drone assessments of distribution infrastructure
WMP Activity Completion	d. Qualitative Goal/Target	Data Governance	7.3.7.1	WMP.519	Centralized repository for data	Centralized repository for data
WMP Activity	d. Qualitative Goal/Target	Data Governance	7.3.7.2	WMP.520	Collaborative research on utility ignition and/or wildfire	Collaborative research on utility ignition and/or wildfire

Completion						
WMP Activity Completion	d. Qualitative Goal/Target	Data Governance	7.3.7.4.1	WMP.558	Ignition management program	Ignition management program
WMP Activity Completion	d. Qualitative Goal/Target	Data Governance	7.3.7.4.2	WMP.559	Reliability database	Reliability database
WMP Activity Completion	d. Qualitative Goal/Target	Emergency Planning & Preparedness	7.3.9.1	WMP.526	Adequate and trained workforce for service restoration	Adequate and trained workforce for service restoration
WMP Activity Completion	d. Qualitative Goal/Target	Emergency Planning & Preparedness	7.3.9.2	WMP.527	Community outreach, public awareness, and communications efforts	Community outreach, public awareness, and communications efforts
WMP Activity Completion	d. Qualitative Goal/Target	Emergency Planning & Preparedness	7.3.9.3	WMP.1007	Customer support in emergencies	Customer support in emergencies
WMP Activity Completion	d. Qualitative Goal/Target	Emergency Planning & Preparedness	7.3.9.4	WMP.1008	Disaster and emergency preparedness plan	Disaster and emergency preparedness plan
WMP Activity Completion	d. Qualitative Goal/Target	Emergency Planning & Preparedness	7.3.9.5	WMP.1009	Preparedness and planning for service restoration	Preparedness and planning for service restoration
WMP Activity Completion	d. Qualitative Goal/Target	Emergency Planning & Preparedness	7.3.9.6	WMP.1010	Protocols in place to learn from wildfire events	Protocols in place to learn from wildfire events
WMP Activity Completion	c. Small (less than 100 items) Volume Quantifiable Goal/Target	Grid Design & System Hardening	7.3.3.1	WMP.453	Capacitor maintenance and replacement program	Capacitor maintenance and replacement program
WMP Activity Completion	a. Large Volume Quantifiable Goal/Target - Field	Grid Design & System Hardening	7.3.3.10	WMP.464	Maintenance, repair, and replacement of connectors, including hotline clamps	Maintenance, repair, and replacement of connectors, including hotline clamps

	Verifiable					
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Grid Design & System Hardening	7.3.3.11.1	WMP.466	Generator Grant Programs	Generator Grant Programs
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Grid Design & System Hardening	7.3.3.11.2	WMP.468	Standby Power Programs	Standby Power Programs
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Grid Design & System Hardening	7.3.3.11.3	WMP.467	Generator Assistance Programs	Generator Assistance Programs
WMP Activity Completion	c. Small (less than 100 items) Volume Quantifiable Goal/Target	Grid Design & System Hardening	7.3.3.17.1	WMP.475	Traditional hardening distribution overhead system hardening	Traditional hardening distribution overhead system hardening
WMP Activity Completion	c. Small (less than 100 items) Volume Quantifiable Goal/Target	Grid Design & System Hardening	7.3.3.17.18.1	WMP.549	Distribution Communications Reliability Improvements (LTE)	Distribution Communications Reliability Improvements (LTE)
WMP Activity Completion	a. Large Volume Quantifiable Goal/Target - Field Verifiable	Grid Design & System Hardening	7.3.3.17.18.2	WMP.550	Lightning arrestor removal and replacement	Lightning arrestor removal and replacement
WMP Activity Completion	a. Large Volume Quantifiable Goal/Target - Field Verifiable	Grid Design & System Hardening	7.3.3.17.18.3	WMP.972	Avian Mitigation	Avian Mitigation
WMP Activity	c. Small (less than 100 items)	Grid Design & System	7.3.3.17.2.1	WMP.543	Overhead transmission fire hardening	Overhead transmission fire hardening (Transmission)

Completion	Volume Quantifiable Goal/Target	Hardening				
WMP Activity Completion	c. Small (less than 100 items) Volume Quantifiable Goal/Target	Grid Design & System Hardening	7.3.3.17.2.2	WMP.544	Underground transmission fire hardening (Transmission)	Underground transmission fire hardening (Transmission)
WMP Activity Completion	c. Small (less than 100 items) Volume Quantifiable Goal/Target	Grid Design & System Hardening	7.3.3.17.2.3	WMP.545	Overhead transmission fire hardening (Distribution Underbuilt)	Overhead transmission fire hardening (Distribution Underbuilt)
WMP Activity Completion	c. Small (less than 100 items) Volume Quantifiable Goal/Target	Grid Design & System Hardening	7.3.3.16	WMP.473	Undergrounding of electric lines and/or equipment	Undergrounding of electric lines and/or equipment
WMP Activity Completion	c. Small (less than 100 items) Volume Quantifiable Goal/Target	Grid Design & System Hardening	7.3.3.3	WMP.455	Covered conductor installation	Covered conductor installation
WMP Activity Completion	d. Qualitative Goal/Target	Grid Design & System Hardening	7.3.3.6	WMP.458	Distribution pole replacement and reinforcement, including with composite poles	Distribution pole replacement and reinforcement, including with composite poles
WMP Activity Completion	a. Large Volume Quantifiable Goal/Target - Field Verifiable	Grid Design & System Hardening	7.3.3.7	WMP.459	Expulsion fuse replacement	Expulsion fuse replacement
WMP Activity Completion	c. Small (less than 100 items) Volume	Grid Design & System Hardening	7.3.3.8.1	WMP.461	PSPS sectionalizing enhancements	PSPS sectionalizing enhancements

	Quantifiable Goal/Target					
WMP Activity Completion	c. Small (less than 100 items) Volume Quantifiable Goal/Target	Grid Design & System Hardening	7.3.3.8.2	WMP.462	Microgrids	Microgrids
WMP Activity Completion	c. Small (less than 100 items) Volume Quantifiable Goal/Target	Grid Design & System Hardening	7.3.3.9	WMP.463	Installation of system automation equipment	Installation of system automation equipment
WMP Activity Completion	d. Qualitative Goal/Target	Grid Operations & Operating Protocols	7.3.6.3	WMP.514	Crew-accompanying ignition prevention and suppression resources and services	Crew-accompanying ignition prevention and suppression resources and services
WMP Activity Completion	d. Qualitative Goal/Target	Grid Operations & Operating Protocols	7.3.6.4	WMP.515	Personnel work procedures and training in conditions of elevated fire risk	Personnel work procedures and training in conditions of elevated fire risk
WMP Activity Completion	d. Qualitative Goal/Target	Grid Operations & Operating Protocols	7.3.6.5	WMP.516	Protocols for PSPS re-energization	Protocols for PSPS re-energization
WMP Activity Completion	d. Qualitative Goal/Target	Grid Operations & Operating Protocols	7.3.6.6	WMP.517	PSPS events and mitigation of PSPS impacts	PSPS events and mitigation of PSPS impacts
WMP Activity Completion	d. Qualitative Goal/Target	Grid Operations & Operating Protocols	7.3.6.7.1	WMP.557	Aviation firefighting program	Aviation firefighting program
WMP Activity Completion	d. Qualitative Goal/Target	Resource Allocation Methodology	7.3.8.1	WMP.523	Allocation methodology development and application	Allocation methodology development and application
WMP Activity Completion	d. Qualitative Goal/Target	Risk Assessment & Mapping	7.3.3.1	WMP.442	A summarized risk map that shows the overall ignition probability and estimated wildfire consequence	A summarized risk map that shows the overall ignition probability and estimated wildfire consequence

					along the electric lines and equipment	along the electric lines and equipment
WMP Activity Completion	c. Small (less than 100 items) Volume Quantifiable Goal/Target	Situational Awareness & Forecasting	7.3.2.2.1	WMP.970	Air Quality Index	Environmental monitoring System
WMP Activity Completion	c. Small (less than 100 items) Volume Quantifiable Goal/Target	Situational Awareness & Forecasting	7.3.2.2.2	WMP.447	Advanced weather monitoring and weather stations	Advanced weather monitoring and weather stations
WMP Activity Completion	c. Small (less than 100 items) Volume Quantifiable Goal/Target	Situational Awareness & Forecasting	7.3.2.2.2	WMP.971	Camera Network	Satellite-based remote sensing
WMP Activity Completion	a. Large Volume Quantifiable Goal/Target - Field Verifiable	Situational Awareness & Forecasting	7.3.2.3	WMP.449	Wireless Fault Indicators	Wireless Fault Indicators
WMP Activity Completion	d. Qualitative Goal/Target	Situational Awareness & Forecasting	7.3.2.4.1	WMP.450	Fire potential index	Fire potential index
WMP Activity Completion	d. Qualitative Goal/Target	Situational Awareness & Forecasting	7.3.2.4.2	WMP.540	Santa Ana wildfire threat index	Santa Ana wildfire threat index
WMP Activity Completion	d. Qualitative Goal/Target	Situational Awareness & Forecasting	7.3.2.4.3	WMP.541	High-performance computing infrastructure	High-performance computing infrastructure
WMP Activity Completion	d. Qualitative Goal/Target	Situational Awareness & Forecasting	7.3.2.5	WMP.451	Personnel monitoring areas of electric lines and equipment in elevated fire risk conditions	Personnel monitoring areas of electric lines and equipment in elevated fire risk conditions

WMP Activity Completion	d. Qualitative Goal/Target	Stakeholder Cooperation & Community Engagement	7.3.10.1	WMP.532	Community outreach, public awareness, and communications efforts	Community outreach, public awareness, and communications efforts
WMP Activity Completion	d. Qualitative Goal/Target	Stakeholder Cooperation & Community Engagement	7.3.10.1	WMP.563	PSPS communication practices	PSPS communication practices
WMP Activity Completion	d. Qualitative Goal/Target	Stakeholder Cooperation & Community Engagement	7.3.10.3	WMP.1011	Cooperation with suppression agencies	Cooperation with suppression agencies
WMP Activity Completion	d. Qualitative Goal/Target	Vegetation Management & Inspections	7.3.5.1	WMP.493	Additional efforts to manage community and environmental impacts	Additional efforts to manage community and environmental impacts
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Vegetation Management & Inspections	7.3.5.16	WMP.508	Removal and remediation of trees with strike potential to electric lines and equipment	Removal and remediation of trees with strike potential to electric lines and equipment
WMP Activity Completion	d. Qualitative Goal/Target	Vegetation Management & Inspections	7.3.5.19	WMP.511	Vegetation inventory system	Vegetation inventory system
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Vegetation Management & Inspections	7.3.5.2	WMP.494	Detailed inspections of vegetation around distribution electric lines and equipment	Detailed inspections of vegetation around distribution electric lines and equipment
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Vegetation Management & Inspections	7.3.5.20	WMP.512	Vegetation management to achieve clearances around electric lines and equipment	Vegetation management to achieve clearances around electric lines and equipment
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not	Vegetation Management & Inspections	7.3.5.5	WMP.497	Fuel management and reduction of “slash” from vegetation management activities	Fuel management and reduction of “slash” from vegetation management activities

	Field Verifiable					
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Vegetation Management & Inspections	7.3.5.7	WMP.499	LiDAR inspections of vegetation around distribution electric lines and equipment	LiDAR inspections of vegetation around distribution electric lines and equipment
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Vegetation Management & Inspections	7.3.5.9	WMP.501	Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations	Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations
WMP Activity Completion	b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Vegetation Management & Inspections	7.5.3.13	WMP.505	Quality assurance / quality control of vegetation inspections	Quality assurance / quality control of vegetation inspections
WMP Activity Completion	d. Qualitative Goal/Target	Vegetation Management & Inspections	7.5.3.14	WMP.506	Recruiting and training of vegetation management personnel	Recruiting and training of vegetation management personnel
WMP Activity Completion	d. Qualitative Goal/Target	Vegetation Management & Inspections	7.5.3.15	WMP.507	Remediation of at-risk species	Remediation of at-risk species

Appendix B – List of Documents Reviewed

Item No.	Documents Reviewed - Public	Document Date
1	Electra N°322, International Council on Large Electric System (CIGRE), *Mitigating the risk of fire starts and the consequences of fires near overhead lines for System Operations*, TB 868, WG C2.24, June 2022	Jun-22
2	SDGE.com -Electric Standard Practice 113.1 "SDG&E Operations & Maintenance Wildland Fire Prevention Plan" https://www.sdge.com/sites/default/files/regulatory/Electric%20Standard%20Practice%20No.%20113.1.pdf	Feb-22
3	SDGE.com – SDG&E General Rate Case Exhibit-SDG&E-13 Section E https://www.sdge.com/sdge-2024-general-rate-case	Jan-23
4	Tdworld.com - "SDG&E Implements Fire Prevention Program" https://www.tdworld.com/electric-utility-operations/article/20962144/sdge-implements-fireprevention-program	May-12
5	SDGE.com - Residential tab - "Wildfire Safety" https://www.sdge.com/our-commitment-wildfire-safety	Jun-23
6	SDGE.com - Residential tab - "What You Should Do to Prepare for Emergencies" https://www.sdge.com/gas-electric-emergency-preparedness	Jun-23
7	SDGE.com - "Contractor Safety Manual" https://www.sdge.com/sites/default/files/Contractor%20Safety%20Manual%20-%20Class%201%20Contractors%20%282023%29.pdf	Jan-20

8	SDGE.com - "Construction Fire Prevention Plan" https://webarchive.sdge.com/sites/default/files/regulatory/Public%20TL%20695_TL%206971-App%204.8-B%20Fire%20Plan.pdf	Apr-17
9	SDGE.com - Residential tab - " PSPS" https://www.sdge.com/wildfire-safety/psps-more-info	Jun-23
10	SDGE.com - Residential tab - "Critical Facilities and Infrastructure Customers"	Jun-23
11	SDGE.com - "2022 PSPS Preseason Report"	Sep-22
12	SDGE.com - "2022 Plan to Support Access and Functional Needs Populations During PSPS"	Jan-22
13	CPUC.CA.Gov - "PSPS Shutoffs" https://www.cpuc.ca.gov/PSPS/	Jun-23
14	SDGE.COM - Residential tab - "PSPS" https://www.sdge.com/wildfire-safety/psps-more-info	Jun-23
15	DigitalCommons.law.scu.edu - "A (Dangerous) New Normal - PSPS: A look into California's Utility De-Energization Authority and the Potential for its Abuse" https://digitalcommons.law.scu.edu/cgi/viewcontent.cgi?article=2916&context=lawreview	Jun-21
16	Sempra.com - "SDG&E Shares Latest Wildfire Safety Advancements & PSPS Shutoff Tips" https://www.sempra.com/sdge-shares-latest-wildfire-safety-advancements-public-safety-power-shutoff-tips	Sep-22
17	SDGE.com - Residential tab - "Working to Ensure Public Safety" https://www.sdge.com/wildfire-safety/aviation-services	Jun-23
18	SDGE.com - Residential tab - "Wildfire Safety Advancements" https://www.sdge.com/community-fire-safety-program	Jun-23
19	VertifcalMag.com - "Powering Up: San Diego Gas & Electric" https://verticalmag.com/features/powered-up-san-diego-gas-electric/	Feb-20
20	SDGE.com - CPUC Proceedings - "For Authority to Update Marginal Cost: A.23.01-008" https://www.sdge.com/rates-and-regulations/proceedings	Apr-23

Appendix C – Data Log, Data and Interview Requests

SDG&E Data Req. # Tracking Number	Date Sent	Time Sent	From	Subject	Date Response Received	Section	File Name
DR001	5/25/2023	4:39 PM	C2	Large Volume Field Verifiable	1-Jun	WMP.459, .464, .550, .972, .449	Folder SDGE_DR001_2023_06_01.gdb: 75 various file types 2023-02-01_SDGE_2022_QDR Non-Spatial Data_Rev_1_FINAL.xlsx
DR002	5/26/2023	4:06 PM	BV	Asset management and inspections	3-Jun	WMP .478,, .479, .483, .551, .488, .489, .492, .491	SDGE_DR002_20230602.xlsx
DR003	5/26/2023	4:09 PM	BV	Grid design and system hardening	2-Jun	WMP .466, .468, .467, .453, .462, .549	SDGE_DR003_20230602.xlsx SDGE_DR003_20230602_include_NonHFTD

DR004	5/29/2023	11:54 AM	C2	Small volume	2-Jun	7.3.7.1 - WMP.519 - Centralized repository for data	Folder DR-004 WMP.519 Data Governance: Audit_FinalReport (DGF)_Vegetation Mgmt.pdf Data Catalog Access Instructions.pdf Data Governance Program Charter.pdf DG Framework_MASTER_v6.0 draft.pdf WMP_MLA.pdf
DR004	5/29/2023	11:54 AM	C2	Small volume	2-Jun	7.3.7.4.2 - WMP.559 - Reliability database	Folder DR-004 WMP.559 SAIDIDAT+: DR-004 WMP.559 Reliability database implementation.msg DR-004 WMP.559 SAIDIDAT+ Support_QA_QC.msg
DR004	5/29/2023	11:54 AM	C2	Small volume	9-Jun	WMP .461 & .463	Folder DR-004 As Builts WMP.461_WMP.463:Subfolder Installation of System Automation Equipment: ESH C0RB1 A APP WO530000278380 Construction Redlines.pdf, ESH C0176 A APP WO#530000288440 Final As-Built.pdf, ESH C0176 B APP WO#530000296102 Final As-Built.pdfSubfolder PSPS Sectionalizing: C210 (2) PSPSSCADASWITCHES_300000457447.pdf, C222 P259287 PSPS SCADA Switch_300000407917.pdf, C223 PSPS NEW OH SCADA P294513_300000287622.pdf, C237.2A APOLLO PSPS Switch_300000325063.pdf, C454 P161785 PSPS PME3 SCADA SWITCH_300000414337.pdf, C520 PSPS

							NEW SCDA SR P18084 & P214168_300000284333.pdf, C1023 PSPS SDR Switch P259424_300000381001.pdf, C1100 HFTD PSPS SCADA D236956 UG_300000306865.pdf, C1118_PME3_H118382_SCADA_HFTD_300000385825.pdf, C1243 P128432 PSPS Switch_300000508771.pdf
DR004	5/29/2023	11:54 AM	C2	Small volume	9-Jun	7.3.4.8 - WMP.485 - LiDAR inspections of transmission electric lines and equipment	Folder DR-004 LiDAR: 5660063636 Towill.pdf, C75_ESH2021_VEG_2022_01_09.xlsx, C176_ESH2021_VEG_2021_12_08.xlsx, C222_ESH2021_VEG_2021_12_02.xlsx, C230_ESH2021_VEG_2022_01_12.xlsx, C240_ESH2021_VEG_2021_12_15.xlsx, C307_ESH2021_VEG_2021_12_15.xlsx, C440_ESH2021_VEG_2022_03_09.xlsx, C520_ESH2021_VEG_2022_01_20.xlsx, C908_ESH2021_VEG_2022_01_11.xlsx, C971_ESH2021_VEG_2021_12_18.xlsx, C1215_ESH2021_VEG_2021_11_05.xlsx, C1215_SDG&E HFTD_Deliverables Review_r1.xlsx, FRESH21 Export.xlsx

DR004	5/29/2023	11:54 AM	C2	Small volume	9-Jun	7.3.3.6 - WMP.458 - Distribution pole replacement and reinforcement, including with composite poles	Folder DR-004 Pole Replacement WMP.458: DR-004 CMP Pole Replacements 2022.xlsx ESP 612.pdf Zip folder DR-004 Pole Replacement As Builts.zip: 205 files, too many to list
DR004	5/29/2023	11:54 AM	C2	Small volume	6-Jun	7.3.5.14 - WMP.506 - Recruiting and training of vegetation management personnel	Folder DR-004 Vegetation Mgmt:Subfolder 7.3.5.14: Arborist Grad Program 01.2022-2-2 copy, Grad Program 2Subfolder 7.3.5.19: Creating Patrol Work Orders, Electronic Refusal Attribute Field7.3.5.15, SDGE WMP 2022_with attachments
DR004	5/29/2023	11:54 AM	C2	Small volume	6-Jun	7.3.7.4.1 - WMP.558 - Ignition management program	Folder DR-004 WMP.558 Ignition Mgmt Program: 8_12_2022 30-Day Incident Report, 12 hour Notification SDG&E 20220812, Outage Heat Form_05_16_2023, regulation-section-29300
DR004	5/29/2023	11:54 AM	C2	Small volume	9-Jun	All	SDGE Response IE-004 SDGE_DR004_C1_20230602
DR005	5/30/2023	5:34 PM	BV	Risk Assessment and Mapping Data Request	8-Jun	Summarized Risk Map 7.3.3.1 - WMP.442	DR-005 WMP.442
DR006	5/30/2023	5:34 PM	BV	Situational Awareness and Forecasting Data Request	5-Jun	WMP.447, .970, .971	Folder DR-006 WMP.447_WMP.970_WMP.971: SDGE_DR006_20230602

DR006	5/30/2023	5:34 PM	BV	Situational Awareness and Forecasting Data Request	2-Jun	Fire Potential Index 7.3.2.4.1 - WMP.450	Folder DR-006 WMP.450 FPI:Subfolder Capstone Team: bb0691480b_1_1bb0691480b_2_1zip folder bb0691480b_3_1: Subfolder Scripts: LoadDeploy.ipynb, TrainModel.ipynbzip folder bb0691480b_4_1Subfolder MODIS Terra NDVI: Black_Mtn_Ranch.csv, Camp_Pendleton__Wheelan_Lake.csv, Campo.csv, Case_Springs.csv, Fallbrook__Ammo_Dump.csv, Guejito_North.csv, Guejito_West.csv, Hellhole_Canyon.csv, Highland_Valley_Rd.csv, Honey_Springs_Rd.csv, Mesa_Grande.csv, Mission_Trails.csv, NOTES.docx, Ortega_Highway.csv, Santa_Rosa_Plateau.csv, Santa_Ysabel_North.csv, Sycamore_Canyon.csv, Viejas.csv, Warner_Springs.csv, Witch_Creek.csvSubfolder WIMS Fuel Moistures: Beach_Cities-CAMP_ELLIOTT, Beach_Cities-MIRAMAR_EAST, Beach_Cities-MISSION_VALLEY, Metro-SAN_MIGUEL, Mountain_Empire-CAMERON_FIRE_STATION, Mountain_Empire-DESCANSO_FIRE_STA, Mountain_Empire-JAPATUL_FIRE_STATION, Mountain_Empire-MT_LAGUNA,

							Mountain_Empire-POTRERO, Mountain_Empire-SWEETWATER, North_Coast-LAS_FLORES, North_Coast-ROBLAR_CANYON, North_Coast-WIRE_MOUNTAIN, North_East-PALOMAR, North_East-SAN_PASQUAL, North_East-VALLEY_CENTER, NOTES, Orange_County-BELL_CANYON, Orange_County-CASE_SPRINGS, Orange_County-MATEO_RIDGE, Orange_County-TALEGA_RIDGE, Ramona-BUD_HILL, Ramona-JULIAN, Ramona-OAK_GROVE_FIRE_STA, Ramona-PINE_HILLS_FIRE_STA, Ramona-RANCHITA, WIMSFuelMoistureForecastFPI.csv, historical-fires.geojson, LFM.csv, MesoWestFuelComponentFeatures.csv, zone3_1984_2013.csv, Zone3Fires.csvbb0691480b_5_1
DR006	5/30/2023	5:34 PM	BV	Situational Awareness and Forecasting Data Request	2-Jun	Fire Potential Index 7.3.2.4.1 - WMP.450	Subfolder Operational Update: Comparison, Correlation, Difference, FPI automated discussion descriptions, FPT Training Video, FPI_comparison_ME, FPI_FuelStats_FPI_ManualMode_version 2_, FW_SAWTi and Fpi information, New_Wx_Matrix, Old_Wx Matrix, Operational FPI_9.12.16, Operational FPI_9.20.16Academia Partnership

DR006	5/30/2023	5:34 PM	BV	Situational Awareness and Forecasting Data Request	2-Jun	Santa Ana Wildfire Threat Index 7.3.2.4.2 - WMP.540	Folder DR-006 WMP.540 SAWTI: [15200434 - Weather and Forecasting] The Santa Ana Wildfire Threat Index_ Methodology and Operational Implementation, Cao Recommendation_1000 Talents Plan Professorship, Cao Recommendation_1000 Talents Plan Professorship, May 27, Mission_Vision Statement, Offshore flow, OxnardFireWxPresentation_SDGandE10May2011, SACP.2.23.12, Santa Ana Classification Meeting Notes, SantaAnaHistory, sawti_explained, SAWTI_Weather Channel, SAWTIReport2014, SAWTIReport2014HR2, UCLA_SACP.2.23.12, Vision Statement
DR006	5/30/2023	5:34 PM	BV	Situational Awareness and Forecasting Data Request	2-Jun	High Performance Computing Infrastructure 7.3.2.4.3 - WMP.541	Folder DR-006 WMP.541 High Perf Computing Infra: 2023 0531 New HPCC info, Daily Weather Files Generated

DR006	5/30/2023	5:34 PM	BV	Situational Awareness and Forecasting Data Request	9-Jun	Personnel Monitoring Areas of Electric Lines and Equipment in Elevated Fire Risk Conditions 7.3.2.5 - WMP.451	DR-006 WMP.451.docx
DR007	5/30/2023	5:34 PM	BV	Stakeholder Cooperation and Community Data Request	6/2/2023 & 6/8	Cooperation with Suppression Agencies7.3.10.3 - WMP.1011	SDGE Response IE-007.docxFolder Agency Cooperation WMP.1011DR-007 WMP.1011 Summary Training 2022 External_redacted_PII.xlsx
DR007	5/30/2023	5:34 PM	BV	Grid Operations and Protocols	8-Jun	Community Outreach, Public Awareness and Communications Efforts 7.3.10.1 - WMP.532	Folder Outreach WMP.532 SDG&E_DR007_BV_2022 Wildfire Safety Communications Plan.docx, SDG&E_DR007_BV_2022 Wildfire Safety Outreach Plan.docx
DR007	5/30/2023	5:34 PM	BV	Grid Operations and Protocols	8-Jun	Community Outreach, Public Awareness and Communications Efforts 7.3.10.1 - WMP.532	Folder PSPS Comms WMP.563 SDG&E_DR007_BV_2022 PSPS Notification Scripts.pdf, SDG&E_DR007_BV_2022 Social Media Content PSPS.docx, SDG&E_DR007_BV_List of Community Partners using SM Toolkit.docx

DR008	5/30/2023	5:34 PM	BV	Vegetation Managment Data Request	5-Jun	Fuel Management and Reduction of "Slash" from Vegetation Management Activities 7.3.5.5 - WMP.497	Folder DR-008 Slash: SDGE_DR008_20230602.xlsx
DR008	5/30/2023	5:34 PM	BV	Vegetation Managment Data Request	7-Jun	Additional Efforts to Manage Community and Environmental Impacts 7.3.5.1 - WMP.493	Folder DR-008 Veg Mgmt:Subfolder Outreach and Educational Material:20230601125136.pdf, 20230601125148.pdf, Arborist Grad Program 01.2022 (2).pdf, Doorhanger_Back_062322.jpg, Doorhanger_Front_062322.jpg, Doorhangers.JPG, S2250021_Wildfire Safety_Fairs_FINAL.pdf, SCHEDULE- 2022-ULCA Cohort 3.pdf, VegMgmtBrochure.pdf, Virtual Open House_Back_062322.png, Virtual Open House_Front_062322.jpgResults Customer Survey Q2.pdf, Screenshot of customer survey Q1.pdf, SDGE Response IE-008.docx, VM Newsletter Q2 2022.pdf, VM Newsletter Q3 2022.pdf, VM Newsletter Q4 2022.pdf

DR009	5/30/2023	5:34 PM	BV	Emergency Planning and Preparedness Data Request	12-Jun	Community Outreach, Public Awareness and Communications Efforts 7.3.9.2 - WMP.527	Folder Community Outreach WMP.527: SDG&E_DR007_BV_2022 PSPS Public Education Research_Travis Research Final Report, SDG&E_DR007_BV_2022 PSPS Research Overview 060123
DR009	5/30/2023	5:34 PM	BV	Emergency Planning and Preparedness Data Request	12-Jun	Customer Support in Emergencies 7.3.9.3 - WMP.1007	Folder Customer Support WMP.1007: SDGE_DR009_BV_Customer Support in Emergencies (7.3.9.3-WMP.1007) Local Assistance Center
DR009	5/30/2023	5:34 PM	BV	Emergency Planning and Preparedness Data Request	12-Jun	WMP .1007 - .1010	Folder Emergency Management WMP.1008_WMP.1009_WMP.1010: AAR snapshot 2022 Training and Exercise, CEADPP-Rev 3-2023 updatePublic, Mutual Aid_2022, Notification Group Concept of Operations 2022, PSPS Training Mode Overview, SDG&E 2022_Electric Emergency Load Curtailment (ELC) Plan_PUBLIC_FINAL_06-30-2022[17], Training and Exercise New Responder Course Documentation for DR 009
DR009	5/30/2023	5:34 PM	BV	Emergency Planning and Preparedness Data Request	12-Jun	Adequate and Trained Workforce for Service Restoration 7.3.9.1 - WMP.526	Folder Workforce Training WMP.526: 2022 ERO PSPS_FIRE Seasonal Readiness Training FINAL 5.2.2022, 2022_ERO_Emergency_Preparedness_(PSPS)_20230609_03_26_17_PM, Non-QEW Stand By Training - SG.V2, SDGE PSPS FIRE TABLETOP EXERCISE PLAYER HANDBOOK SITMAN FINAL 7.25.2022,

							SecondaryAssessorPresentation_4-7-22_SG (002), Sign In Sheets 10.25.2022 Storm Exercise
DR009	5/30/2023	5:34 PM	BV	Emergency Planning and Preparedness Data Request	12-Jun	All	SDGE Response IE-009
DR010	5/30/2023	10:09 PM	C2	Large Volume Not Field Verifiable and QA/QC § Asset Management and Inspections § Grid Design and System Hardening § Situational Awareness and Forecasting § Vegetation Management and Inspections	9-Jun	WMP .554, .555, .481, .482, .552, .494, .512, .499, .501, .505, .508, .459, .464, .550, .972, .449	SDGE Response IE-010

DR011R	6/7/2023	12:40 PM	BV	Large volume not field verifiable - mil sampling from DR002	9-Jun	WMP .478, .483, .488, .551	Folder DR-011 WMP.478_483_488_551: DR-011 Distribution Inspections WMP.478_483_488_551
DR011R	6/7/2023	12:40 PM	BV	Large volume not field verifiable - mil sampling from DR002	9-Jun	Detailed inspection of transmission electric lines and equipment 7.3.4.2 - WMP 479	Folder DR-011 WMP.479: Detailed WMP.479 Tier2_3
DR011R	6/7/2023	12:40 PM	BV	Large volume not field verifiable - mil sampling from DR002	9-Jun	Detailed inspection of transmission electric lines and equipment 7.3.4.12 - WMP 489	Folder DR-011 WMP.489: Patrol WMP.489 Tier 2_3
DR011R	6/7/2023	12:40 PM	BV	Large volume not field verifiable - mil sampling from DR002	9-Jun	Substation Inspections 7.3.4.15 - WMP 492	Folder DR-011 WMP.492:MO 2022-3001339640, MO 3001339652, MO 3001339706, MO 3001361110, MO 3001361112, MO 3001361137, MO 3001361149, MO 3001361174, MO 3001361183, MO 3001361184
DR012R	6/7/2023	12:07 PM	BV	Large volume not field verifiable - mil sampling from DR003	9-Jun	Capacitor Maintenance and Replacement Program 7.3.3.1 - WMP 453	Folder DR-012 Capacitor Mx and Replacement WMP.453: completed asbuilt c212 530000267891, completed asbuilt c280 530000205696, completed asbuilt c338 530000273304, ReliabilityC470

							530000248367ConstructionRedlines(1)_20230607203111.866_X (1)
DR012R	6/7/2023	12:07 PM	BV	Large volume not field verifiable - mil sampling from DR003	9-Jun	Distribution Communications Relaibility Improvements (LTE) 7.3.3.17.18.1 - WMP 549	Folder DR-012 DCRI WMP.549: WMP.549-01004-3502864, WMP.549-01005-3502864, WMP.549-02501-3502864, WMP.549-02503-3502864, WMP.549-09001-3502864
DR012R	6/7/2023	12:07 PM	BV	Large volume not field verifiable - mil sampling from DR003	9-Jun	Microgrids 7.3.3.8.2 - WMP 462	Folder DR-012 Microgrids WMP.462: Ramona BESS yard (1), SDGE RAAB WMP Microgrid, Thumbs
DR012R	6/7/2023	12:07 PM	BV	Large volume not field verifiable - mil sampling from DR003	9-Jun	WMP .467, .466, .468	Folder DR-012 WMP.467_WMP.466_WMP.468: 466 TIER 2, 466 TIER 3, 467 TIER 2, 467 TIER 3, 468 TIER 2, 468 TIER 3
DR013	6/6/2023	10:02 AM	BV	Small volume - situational awareness and forecasting - mil sampling DR006	9-Jun	Environmental Monitoring Systems 7.3.2.2.1 - WMP 970	Folder: Env Monitoring Systems WMP.970 AQ Station_Beach Cities AQ11 Site Sheet.pdf & AQ Station_Eastern AQ3 Site Sheet (1).pdf

DR013	6/6/2023	10:02 AM	BV	Small volume - situational awareness and forecasting - mil sampling DR006	9-Jun	Satellite-Based Remote Sensing 7.3.2.2.2 - WMP 971	Folder: Satellite-Based Remote Sensing (Cameras) WMP.971DR-3 Satellite-Based Remote Sensing (Cameras) WMP.971.docx
DR013	6/6/2023	10:02 AM	BV	Small volume - situational awareness and forecasting - mil sampling DR006	9-Jun	Advanced Weather Monitoring and Weather Stations 7.3.2.2.2 - WMP 447	Folder: Weather Stations WMP.447 CTM_SCADA 5114_WS114_Corte Madera_Cir442.pdf, DHV_SCADA 1973_WS73_Deerhorn Valley_Cir67.pdf, LAG_SCADA 1968_WS68_Laguna_Cir440.pdf, LCM_SCADA 5122_WS122_Lake Cuyamaca_Cir79.pdf, MLG_SCADA 1929_WS29_Mt Laguna_Cir440.pdf, NPT_SCADA 5127_WS127_North Potrero_Cir448.pdf, RAM_SCADA 1902_WS102_Ramona_Cir236.pdf, TDS_SCADA 1944_WS44_Tierra del Sol_Cir445.pdf
DR014R	6/7/2023	5:13 PM	BV	Large volume not field verifiable - reduced mil sampling DR008	9-Jun	Fuel Management and Reduction of "Slash" from Vegetation Management Activities	DR014_Fuels Management Sample Inspection.xlsx DR014_Fuels Management Sample Planning Imagery.pdf

						7.3.5.5 - WMP 497	
DR015	6/13/2023	4:19 AM	BV	SAP & EPOCH program narratives from SME interview	14-Jun	Detailed inspection of distribution electric lines and equipment 7.3.4.1 - WMP 478	SDGE Response IE-015

DATA REQUEST

Data Request Number: 001

Data Request Date: 05/25/23

Name: [redacted]

Company: C2 Group

Email: [redacted]

Phone #: [redacted]

Preferred Point of Contact: Email

High = Critical Path, Task Dependent. Need to receive this data response first before all others.
Medium = Task Driven Not Critical. Data responses can be received secondary.
Low = Not Task Driven, Not Critical, Informational Only. Data responses can be received without pressing demands.

Program Target	Units	Sections	Target	Actual	Method	Data Request	Priority Level
a. Large Volume Quantifiable Goal/Target - Field Verifiable	Fuses	7.3.3.7 - WMP.459 - Expulsion fuse replacement	227	231	Field/ Document	Although geospatial data was received for the fuse locations, please identify/provide a designation to the specific expulsion fuses that were replaced in 2022 for all of the Actuals completed of 231 Fuses noted from the Q4 Actual Progress found in the "2023-02-01_SDGE_2022_QDR Non-Spatial Data_Rev_1_Final" file received. Please note, the requested identification/designation can be provided as an added attribute field to	High

						the GIS shapefile/geodatabase within one file showing all 231 Fuses replaced.	
a. Large Volume Quantifiable Goal/Target - Field Verifiable	HLC	7.3.3.10 - WMP.464 - Maintenance, repair, and replacement of connectors, including hotline clamps	1,650	1,903	Field/ Document	Please provide the latitude and longitude of the HLC connections part of this initiative for 2022, identification of the work completed (repaired or replaced), and the date the work was completed for all of the Actuals completed of 1,903 HLCs noted from the Q4 Actual Progress found in the "2023-02-01_SDGE_2022_QDR Non-Spatial Data_Rev_1_Final" file received. Please note, the requested information can be provided as a GIS shapefile or geodatabase within one file showing all 1,903 HLCs.	High
a. Large Volume Quantifiable Goal/Target - Field Verifiable	Arrestors	7.3.3.17.18.2 - WMP.550 - Lightning arrestor removal and replacement	1,848	2,710	Field/ Document	Although geospatial data was received for the Lightning Arrestor locations, please identify/provide a designation to the specific Lightning Arrestors that were removed or replaced in 2022 for all of the Actuals completed of 2,710 noted from the Q4 Actual Progress found in the "2023-02-01_SDGE_2022_QDR Non-Spatial Data_Rev_1_Final" file received. Please note, the requested identification/designation can be provided as an added attribute field to the GIS shapefile/geodatabase within one file showing all 2,710 Lightning Arrestors.	High

a. Large Volume Quantifiable Goal/Target - Field Verifiable	Poles	7.3.3.17.18.3 - WMP.972 - Avian Mitigation	847	973	Field/ Document	Please provide the latitude and longitude of the distribution poles that Avian Protection Equipment that were installed as part of this initiative for 2022 and the date the work was completed for all of the Actuals completed of 973 poles noted from the Q4 Actual Progress found in the "2023-02-01_SDGE_2022_QDR Non-Spatial Data_Rev_1_Final" file received. Please note, the requested information can be provided as a GIS shapefile or geodatabase within one file showing all 973 poles with Avian Protection Equipment.	High
a. Large Volume Quantifiable Goal/Target - Field Verifiable	WFIs	7.3.2.3 - WMP.449 - Wireless Fault Indicators	500	545	Field/ Document	Although geospatial data was received for the Wireless Fault Indicator locations, please identify/provide a designation to the specific Wireless Fault Indicators that were installed in 2022 for all of the Actuals completed of 545 noted from the Q4 Actual Progress found in the "2023-02-01_SDGE_2022_QDR Non-Spatial Data_Rev_1_Final" file received. Please note, the requested identification/designation can be provided as an added attribute field to the GIS shapefile/geodatabase within one file showing all 545 Wireless Fault Indicators.	High

DATA REQUEST

Data Request Number: 002 **Data Request Date: 05-26-2023**

Name: [redacted] Email [redacted]

WMP Category: Asset Management and Inspections Phone #: [redacted]

Company: BVNA Preferred Point of Contact: Email

High = Critical Path, Task Dependent. Need to receive this data response first before all others.
Medium = Task Driven Not Critical. Data responses can be received secondary.
Low = Not Task Driven, Not Critical, Informational Only. Data responses can be received without pressing demands.

Program Target	Units	Sections	Target	Actual	Method	Data Request	Priority Level
Large Volume Quantifiable Goal/Target - Non-Field Verifiable	# of Inspections	Detailed inspections of distribution electric lines and equipment 7.3.4.1 - WMP.478	18,177	17,935	Document Review	In an Excel spreadsheet, please provide for each inspection: 1. notification/order/job number 2. SDG&E region 3. Tier 2 and Tier 3	High
Large Volume Quantifiable Goal/Target - Non-Field Verifiable	# of Inspections	Detailed inspections of distribution electric lines and equipment	2,087	2,323	Document Review	In an Excel spreadsheet, please provide for each inspection: 1. notification/order/job number 2.SDG&E region 3. Tier 2 and Tier 3	High

		7.3.4.2 - WMP.479					
Large Volume Quantifiable Goal/Target - Non-Field Verifiable	# of Inspections	Intrusive pole inspections 7.3.4.6 - WMP.483	350	967	Document Review	In an Excel spreadsheet, please provide for each inspection:1. notification/order/job number2. SDG&E region3. Tier 2 and Tier 3	High
Large Volume Quantifiable Goal/Target - Non-Field Verifiable	# of Inspections	HFTD Tier 3 distribution pole inspections 7.3.4.9.1 - WMP.551	12,268	12,263	Document Review	In an Excel spreadsheet, please provide for each inspection: 1. notification/order/job number 2. SDG&E region 3. Tier 2 and Tier 3	High
Large Volume Quantifiable Goal/Target - Non-Field Verifiable	# of Inspections	Patrol inspections of distribution electric lines and equipment 7.3.4.11 - WMP.488	86,490	86,821	Document Review	In an Excel spreadsheet, please provide for each inspection: 1. notification/order/job number 2. SDG&E region 3. Tier 2 and Tier 3	High
Large Volume Quantifiable Goal/Target - Non-Field Verifiable	# of Inspections	Patrol inspections of transmission electric lines and equipment 7.3.4.12 - WMP.489	6,312	6,445	Document Review	In an Excel spreadsheet, please provide for each inspection: 1. notification/order/job number 2. SDG&E region 3. Tier 2 and Tier 3	High
Large Volume Quantifiable Goal/Target - Non-Field Verifiable	# of Inspections	Substation inspections 7.3.4.15 - WMP.492	330	397	Document Review	In an Excel spreadsheet, please provide for each inspection: 1. notification/order/job number 2. SDG&E region 3. Tier 2 and Tier 3	High
Qualitative	N/A	Quality	N/A	N/A	Document	In an Excel spreadsheet, please provide:	Medium

Goal/Target		Assurance/Quality Control of inspections 7.3.4.14 - WMP.491			Review	1. CMP Inspection audits for 2022 2. SDG&E region 3. Tier 2 and Tier 3	

DATA REQUEST

Data Request Number: 003

Data Request Date: 05-26-2023

Name: [redacted]

Email: [redacted]

WMP Category: Grid Design & System Hardening

Phone #: [redacted]

Company: BVNA

Preferred Point of Contact: Email

High = Critical Path, Task Dependent. Need to receive this data response first before all others.
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Low = Not Task Driven, Not Critical, Informational Only. Data responses can be received without pressing demands.

Program Target	Units	Sections	Target	Actual	Method	Data Request	Priority Level
Large Volume Quantifiable Goal/Target - Non-Field Verifiable	# of Generators	Generator Grant Programs 7.3.3.11.1 - WMP.466	700	921	Document Review	In an Excel spreadsheet, please provide for each installation: 1. notification/order/job number 2. SDG&E region 3. Tier 2 and Tier 3	High
Large Volume Quantifiable Goal/Target - Non-Field Verifiable	# of Generators	Standby Power Programs 7.3.3.11.2 - WMP.468	412	376	Document Review	In an Excel spreadsheet, please provide for each installation: 1. notification/order/job number 2.SDG&E region 3. Tier 2 and Tier 3	High
Large Volume Quantifiable	# of Generators	Generator Assistance	1,250	140	Document Review	In an Excel spreadsheet, please provide for each installation:1.	High

Goal/Target - Non-Field Verifiable		Programs 7.3.3.11.3 - WMP.467				notification/order/job number2. SDG&E region3. Tier 2 and Tier 3	
Large Volume Quantifiable Goal/Target - Non-Field Verifiable	# of Capacitors	Capacitor Maintenance and Replacement Program 7.3.3.1 - WMP.453	40	58	Document Review	In an Excel spreadsheet, please provide for each installation: 1. notification/order/job number 2. SDG&E region 3. Tier 2 and Tier 3	High
Large Volume Quantifiable Goal/Target - Non-Field Verifiable	# of Microgrids	Microgrids 7.3.3.8.2 - WMP.462	4	1	Document Review	In an Excel spreadsheet, please provide for each installation: 1. notification/order/job number 2. SDG&E region 3. Tier 2 and Tier 3	High
Large Volume Quantifiable Goal/Target - Non-Field Verifiable	# of Base Stations	Distribution Communications Reliability Improvements (LTE) 7.3.3.17.18.1 - WMP.549	25	21	Document Review	In an Excel spreadsheet, please provide for each installation: 1. notification/order/job number 2. SDG&E region 3. Tier 2 and Tier 3	High

DATA REQUEST

Data Request Number: 004

Data Request Date: 05/29/23

Name: [redacted]

Company: C2 Group

Email: [redacted]

Phone #: [redacted]

Preferred Point of Contact: Email

High = Critical Path, Task Dependent. Need to receive this data response first before all others.
Medium = Task Driven Not Critical. Data responses can be received secondary.
Low = Not Task Driven, Not Critical, Informational Only. Data responses can be received without pressing demands.

Program Target	Units	Sections	Target	Actual	Method	Data Request	Priority Level
c. Small (less than 100 items) Volume Quantifiable Goal/Target	Miles	7.3.3.3 - WMP.455 - Covered conductor installation	60	61.23	Document	1. Please provide the list of locations of the installed covered conductor, including the circuit name, HFTD designation, length of hardened line, identification if the line was replaced or removed, completion date, and associated as-builts of completed covered conductor installation work. 2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for	Medium

						verifying the quality of the work done and confirming its successful completion.	
c. Small (less than 100 items) Volume Quantifiable Goal/Target	Switches	7.3.3.8.1 - WMP.461 - PSPS sectionalizing enhancements	10	12	Document	1. Please provide the list of locations of the installed PSPS sectionalizing enhancements, including the circuit name, HFTD designation, completion date, and associated as-builts of completed enhancements. 2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	Medium
c. Small (less than 100 items) Volume Quantifiable Goal/Target	Circuits	7.3.3.9 - WMP.463 - Installation of system automation equipment	8	3	Document	1. Please provide the list of the installed system automation equipment and advanced technology protection systems, including the location, circuit name, HFTD designation, completion date, and associated as-builts of completed enhancements. 2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	Medium
c. Small (less than 100 items) Volume	Miles	7.3.3.16 - WMP.473 - Undergrounding of electric lines	65	65.00	Document	1. Please provide the list of locations of the undergrounded lines, including the circuit name, HFTD designation, length of line, completion date, and associated as-builts of	Medium

Quantifiable Goal/Target		and/or equipment				completed undergrounding work. 2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	
c. Small (less than 100 items) Volume Quantifiable Goal/Target	Miles	7.3.3.17.1 - WMP.475 - Traditional hardening distribution overhead system hardening	5	26.30	Document	1. Please provide the list of locations of the system hardened conductor, including the circuit name, HFTD designation, length of hardened line, identification if the line was replaced or removed and completion date, and include associated as-builts of completed hardening work. 2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	Medium
c. Small (less than 100 items) Volume Quantifiable Goal/Target	Miles	7.3.3.17.2.1 - WMP.543 - Overhead transmission fire hardening (Transmission)	18.5	18.28	Document	1. Please provide the list of locations of the system hardened conductor, including the circuit name, HFTD designation, length of hardened line, identification if the line was replaced or removed and completion date, and include associated as-builts of completed hardening work. 2. Please describe the reasons for the completed miles being less than the 2022	Medium

						target specific to the Overhead Transmission Fire Hardening. 3. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	
c. Small (less than 100 items) Volume Quantifiable Goal/Target	Miles	7.3.3.17.2.2 - WMP.544 - Underground transmission fire hardening (Transmission)	5.5	5.69	Document	1. Please provide the list of locations of the system hardened conductor, including the circuit name, HFTD designation, length of hardened line, identification if the line was replaced or removed and completion date, and include associated as-builts of completed hardening work. 2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	Medium
c. Small (less than 100 items) Volume Quantifiable Goal/Target	Miles	7.3.3.17.2.3 - WMP.545 - Overhead transmission fire hardening (Distribution Underbuilt)	7.6	0.6	Document	1. Please provide the list of locations of the system hardened conductor, including the circuit name, HFTD designation, length of hardened line, identification if the line was replaced or removed and completion date, and include associated as-builts of completed hardening work.2. Please detail the QA/QC program associated with this initiative and	Medium

						submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	
d. Qualitative Goal/Target		7.3.3.6 - WMP.458 - Distribution pole replacement and reinforcement, including with composite poles	N/A	N/A	Document	1. Please provide the list of replaced poles, HFTD designation, completion date, and associated as-builts. 2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	Medium
d. Qualitative Goal/Target		7.3.4.7 - WMP.484 - LiDAR inspections of distribution electric lines and equipment	N/A	N/A	Document / Interview	1. Please provide documentation for the captured and processed LiDAR data, including circuit number, miles, HFTD area, and completion of the subsequent vegetation risk analyses. **If detailed documentation is not available or easily transmittable, please schedule a SME interview to review and discuss the progress on this initiative.** 2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	Medium
d. Qualitative		7.3.4.8 -	N/A	N/A	Document	1. Please provide documentation for the	Medium

Goal/Target		WMP.485 - LiDAR inspections of transmission electric lines and equipment			/ Interview	completed LiDAR inspections, including circuit number, miles, and HFTD area. **If detailed documentation is not available or easily transmittable, please schedule a SME interview to review and discuss the progress on this initiative.** 2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	
d. Qualitative Goal/Target		7.3.5.14 - WMP.506 - Recruiting and training of vegetation management personnel	N/A	N/A	Document	1. Please provide a copy of the training curriculum and evidence for completion of the two 5-week training courses. 2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the required training was completed.	Medium
d. Qualitative Goal/Target		7.3.5.15 - WMP.507 - Remediation of at-risk species	N/A	N/A	Document / Interview	1. Please provide information regarding the updated Genus-species attribute fields, ongoing collaborative study with San Diego Supercomputing Center, and participation in Bi-weekly joint IOU meetings. **If detailed documentation is not available or easily transmittable, please schedule a SME interview to review and discuss the progress on this initiative.** 2. Please detail the QA/QC program associated	Medium

						with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	
d. Qualitative Goal/Target		7.3.5.19 - WMP.511 - Vegetation inventory system	N/A	N/A	Document / Interview	1. Please provide information (Screen Captures, Documentation) regarding the modification and process improvements to Epoch inventory system and the new scheduling and dispatch work order capabilities. **If detailed documentation is not available, please schedule a SME interview to review and discuss the progress on this initiative.** 3. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	Medium
d. Qualitative Goal/Target		7.3.7.1 - WMP.519 - Centralized repository for data	N/A	N/A	Document / Interview	1. Please provide information (Screen Captures, documentation) for the 602 automated metrics and 516 metrics repointed to the OEIS data schema, new Master Logic Manual or Automated documentation, internal mock audits conducted by WM DG PM, DG documentation, documentation and processes developed with the SDG&E Data Governance Office, and documentation of the implementation of Collibra. **If more detailed**	Medium

						documentation is not available, please schedule a SME interview to review and discuss the progress on this initiative. 2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	
d. Qualitative Goal/Target		7.3.7.4.1 - WMP.558 - Ignition management program	N/A	N/A	Document / Interview	1. Please provide a copy of the heat reports, evidence of integration in the enterprise-wide database, and evidence that notification requirements in regulatory document 29300 were implemented. **If more detailed documentation is not available, please schedule a SME interview to review and discuss the progress on this initiative.**2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	Medium
d. Qualitative Goal/Target		7.3.7.4.2 - WMP.559 - Reliability database	N/A	N/A	Document / Interview	1. Please provide evidence of the implementation of SAIDIDAT+ and the completion date. **If more detailed documentation is not available, please schedule a SME interview to review and discuss the progress on this initiative.**	Medium

						2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	

DATA REQUEST

Data Request Number: 005

Data Request Date: 05-26-2023

Name: [redacted]

Email: [redacted]

WMP Category: Risk Assessment and Mapping

Phone #: [redacted]

Company: BVNA

Preferred Point of Contact: Email

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Medium = Task Driven Not Critical. Data responses can be received secondary.
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Program Target	Units	Sections	Target	Actual	Method	Data Request	Priority Level
Qualitative Goal/Target	N/A	Summarized Risk Map 7.3.3.1 - WMP.442	N/A	N/A	Document Review	Please provide link to view summarized risk map.	Low

DATA REQUEST

Data Request Number: 006 **Data Request Date: 05-26-2023**

Name: [redacted] Email: [redacted]

WMP Category: Situational Awareness and Forecasting Phone [redacted]

Company: BVNA Preferred Point of Contact: Email

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Program Target	Units	Sections	Target	Actual	Method	Data Request	Priority Level
Small (less than 100 items) Volume Quantifiable Goal/Target	# of Weather Stations	Advanced Weather Monitoring and Weather Stations 7.3.2.2.2 - WMP.447	20	50	Document Review	In an Excel spreadsheet, please provide for each installation: 1. notification/order/job number 2. SDG&E region 3. Tier 2 and Tier 3	Medium
Small (less than 100 items) Volume Quantifiable Goal/Target	# of Sensors	Environmental Monitoring Systems 7.3.2.2.1 - WMP.970	6	8	Document Review	In an Excel spreadsheet, please provide for each installation: 1. notification/order/job number 2.SDG&E region 3. Tier 2 and Tier 3	Medium
Small (less than 100	# of Cameras	Satellite-Based Remote Sensing	8	12	Document Review	In an Excel spreadsheet, please provide for each installation:	Medium

items) Volume Quantifiable Goal/Target		7.3.2.2.2 - WMP.971				1. notification/order/job number 2. SDG&E region 3. Tier 2 and Tier 3	
Qualitative Goal/Target	N/A	Fire Potential Index 7.3.2.4.1 - WMP.450	N/A	N/A	Document Review	Please provide the following information: 1. All documents detailing operational update 2. All documents related to analysis with Capstone Team 3. List of academia partnerships related to fire/weather science	Low
Qualitative Goal/Target	N/A	Santa Ana Wildfire Threat Index 7.3.2.4.2 - WMP.540	N/A	N/A	Document Review	Please provide the following information: 1. All documents related to Santa Ana Wind Threat Index (SAWTI)	Low
Qualitative Goal/Target	N/A	High Performance Computing Infrastructure 7.3.2.4.3 - WMP.541	N/A	N/A	Document Review	Please provide the following information: 1. Example of weather data generated in a twenty-four (24) hour period by HPCCs 2. Detailed information on the two(2) additional HPCCs added in 2022.	Low
Qualitative Goal/Target	N/A	Personnel Monitoring Areas of Electric Lines and Equipment in Elevated Fire Risk Conditions 7.3.2.5 - WMP.451	N/A	N/A	Document Review	Please provide the following information: 1. List of required training for field observers 2. Please provide a list of any additional enhancements implemented to the field observer program	Low

DATA REQUEST

Data Request Number: 007 **Data Request Date: 05-26-2023**

Name: [redacted] Email: [redacted]

WMP Category: Stakeholder Cooperation and Community Engagement

Phone [redacted]

Company: BVNA Preferred Point of Contact: Email

High = Critical Path, Task Dependent. Need to receive this data response first before all others.

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Low = Not Task Driven, Not Critical, Informational Only. Data responses can be received without pressing demands.

Program Target	Units	Sections	Target	Actual	Method	Data Request	Priority Level
Qualitative Goal/Target	N/A	Community Outreach, Public Awareness and Communications Efforts 7.3.10.1 - WMP.532	N/A	N/A	Document Review	Please provide the following information: 1. Copy of wildfire safety communications and outreach plan	Low
Qualitative Goal/Target	N/A	PSPS Communication Practices 7.3.10.1 -	N/A	N/A	Document Review	Please provide the following information: 1. Number of PSPS events in 2022, if any 2. Detailed list of PSPS communication content using notifications and across social media sites	Low

		WMP.563				3. list of community partners utilizing "social media kits".	
Qualitative Goal/Target	N/A	Cooperation with Suppression Agencies7.3.10.3 - WMP.1011	N/A	N/A	Document Review	Please provide the following information:1. List of all in person training for fire personnel as well as attendance records2. List of all wildland exercises sponsored3. Position held for each wildland exercise	Low

DATA REQUEST

Data Request Number: 008

Data Request Date: 05-26-2023

Name: [redacted]

Email: [redacted]

WMP Category: Vegetation Management and Inspections

Phone [redacted]

Company: BVNA

Preferred Point of Contact: Email

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Program Target	Units	Sections	Target	Actual	Method	Data Request	Priority Level
Large Volume Quantifiable Goal/Target - Non-Field Verifiable	# of Poles Cleared	Fuel Management and Reduction of "Slash" from Vegetation Management Activities 7.3.5.5 - WMP.497	500	500	Document Review	In an Excel spreadsheet, please provide for each pole: 1. notification/order/job number 2. SDG&E region 3. Tier 2 and Tier 3	High
Qualitative Goal/Target	N/A	Additional Efforts to Manage Community and Environmental Impacts 7.3.5.1 - WMP.493	N/A	N/A	Document Review	Please provide the following information: 1. Number of residents that participated in the Tree Rebate Program in 2022 2. Copy of customer survey	Low

						3. Results of customer survey 4. Copy of quarterly newsletters used for internal business units 5. List of external stakeholder partnerships including outreach/pub ed material topics discussed	

DATA REQUEST

Data Request Number: 009

Data Request Date: 05-30-2023

Name: [redacted]

[redacted]

WMP Category: Emergency Planning and Preparedness

Phone #: [redacted]

Company: BVNA

Preferred Point of Contact: Email

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Program Target	Units	Sections	Target	Actual	Method	Data Request	Priority Level
Qualitative Goal/Target	N/A	Adequate and Trained Workforce for Service Restoration 7.3.9.1 - WMP.526	N/A	N/A	Document Review	Provide training documents, including curriculum and training logs in support of 7.3.7.1 for Service Restoration	Low
Qualitative Goal/Target	N/A	Community Outreach, Public Awareness and Communications Efforts	N/A	N/A	Document Review	Please provide feedback from customers regarding Community Outreach before, during and after PSPS events: 1. SDG&E region 2. Tier 2 and Tier 3	Low

		7.3.9.2 - WMP.527					
Qualitative Goal/Target	N/A	Customer Support in Emergencies 7.3.9.3 - WMP.1007	N/A	N/A	Document Review	Provide statistics for number of residential and non-residential customers supported annually and type of customer protections provided for SDG&E support per CPUC D.19-05-039 and D.19-07-015: 1. SDG&E region 2. Tier 2 and Tier 3	Low
Qualitative Goal/Target	N/A	Disaster and Emergency Preparedness Plan 7.3.9.4 - WMP.1008	N/A	N/A	Document Review	Provide the SDG&E Company Emergency Response Plan (CERP) and other internal documents utilized for emergency response	Low
Qualitative Goal/Target	N/A	Preparedness and Planning for Service Restoration 7.3.9.5 - WMP.1009	N/A	N/A	Document Review	Please provide documents and statistics pertaining to usage of Mutual Assistance by SDG&E, including number of deployments, number of personnel for each deployment and duration of deployment: 1. SDG&E region 2. Tier 2 and Tier 3	Low
Qualitative Goal/Target	N/A	Protocols in Place to Learn from Wildfire Events 7.3.9.6 - WMP.1010	N/A	N/A	Document Review	Provide examples of AAR findings and implementation into annual Training and Exercise programs: 2.SDG&E region 3. Tier 2 and Tier 3	Low

DATA REQUEST

Data Request Number: 010 **Data Request Date: 05/30/23**

Name: [redacted] Email: [redacted]

Company: C2 Group Phone #: [redacted]

Preferred Point of Contact: Email

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Program Target	Units	Sections	Target	Actual	Method	Data Request	Priority Level
b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Inspections	7.3.4.10.1 - WMP.554 - Drone assessment of transmission	500	1,028	Document	1. Please provide the inspection records completed for the drone assessment of Transmission for the locations identified in the attached spreadsheet "SDGE_7.3.4.10.1 WMP.554_Sample." 2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its	Medium

						successful completion.	
b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Inspections	7.3.4.10.2 - WMP.555 - Additional Transmission Aerial 69kV Tier 3 Visual Inspection	1,654	1,649	Document	1. Please provide the inspection records completed for the additional transmission aerial 69kV Tier 3 visual inspections for the locations identified in the attached spreadsheet "SDGE_7.3.4.10.2 WMP.555_Sample" 2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	Medium
b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Inspections	7.3.4.4 - WMP.481 - Infrared inspections of distribution electric lines and equipment	12,000	12,264	Document	1. Please provide the inspection records completed for the Infrared Inspections for Distribution Electric Lines and Equipment for the locations identified in the attached spreadsheet "SDGE_7.3.4.4 WMP.481_Sample" 2. From the SDGE_AssetInspectionPoints_2022_Q1 through Q4, the total number of inspections for WMP.481 was shown to be 10,746 instead of 12,264 Actuals. Please provide additional documentation for the total actuals of 12,264 or describe the reasons for the inspections reported to be lower than the WMP target of 12,000.3. Please detail the QA/QC program associated with this initiative	Medium

						and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	
b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Inspections	7.3.4.5 - WMP.482 - Infrared inspections of transmission electric lines and equipment	6,154	6,259	Document	1. Please provide the inspection records completed for the Infrared Inspections for Transmission Lines and Equipment for the locations identified in the attached spreadsheet "SDGE_7.3.4.5 WMP.482_Sample" 2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	Medium
b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Inspections	7.3.4.9.2 - WMP.552 - Drone assessments of distribution infrastructure	22,000	30,044	Document	1. Please provide the inspection records completed for the Drone Assessments of Distribution Infrastructure for the locations identified in the attached spreadsheet "SDGE_7.3.4.9.2 WMP.552_Sample" 2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures	Medium

						for verifying the quality of the work done and confirming its successful completion.	
b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Inspections	7.3.5.2 - WMP.494 - Detailed inspections of vegetation around distribution electric lines and equipment	491,822	509,110	Document	1. Please provide the inspection records completed for the Detailed Inspections of Vegetation around Distribution Electric Lines and Equipment for the locations identified in the attached spreadsheet "SDGE_7.3.5.2 WMP.494_Sample" 2. From the SDGE_VegetationInspectionPoint_2022_Q1 through Q4, the total number of inspections for WMP.494 was shown to be 397,739 instead of 509,110 Actuals. Please provide additional documentation for the total actuals of 509,110 or describe the reasons for the inspections reported to be lower than the WMP target of 491,822 and 509,110 Actuals. 3. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	Medium
b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Poles	7.3.5.20 - WMP.512 - Vegetation management to achieve	34,000	35,485	Document	1. Please provide the inspection records completed for the vegetation management to achieve clearances around electric lines and equipment for the locations identified in the attached	Medium

		clearances around electric lines and equipment				spreadsheet "SDGE_7.3.5.20 WMP.512_Sample" 2. From the SDGE_VegetationManagementProjectPoint_2022_Q1 through Q4, the total number of inspections for WMP.512 was shown to be 32,876 instead of 35,485 Actuals. Please provide additional documentation for the total actuals of 35,485 or describe the reasons for the inspections reported to be lower than the WMP target of 34,000.3. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	
b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Circuit Line Mile	7.3.5.7 - WMP.499 - LiDAR inspections of vegetation around distribution electric lines and equipment	730	738	Document / Interview	1. Please provide the documentation for the completion of the LiDAR inspections of vegetation around distribution electric lines and equipment for the locations identified in the attached spreadsheet "SDGE_7.3.5.7 WMP.499_Sample." **If detailed documentation is not available or easily transmittable, please schedule a SME interview to review and discuss the progress on this initiative.** 2. Please detail the QA/QC program associated with this initiative and submit	Medium

						all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	
b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Trees Trimmed or Removed	7.3.5.9 - WMP.501 - Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations	12,500	10,488	Document	1. Please provide the inspection records completed for the other discretionary inspection of distribution electric lines and equipment (beyond inspections mandated by rules and regulations) for the locations identified in the attached spreadsheet "SDGE_7.3.5.9 WMP.501_Sample" 2. From the SDGE_VegetationManagementProjectPoint_2022_Q1 through Q4, the total number of inspections for WMP.512 was shown to be 8,237 instead of 10,488 Actuals. Please provide additional documentation for the total actuals of 10,488 or describe the reasons for the inspections reported to be lower than the WMP target of 12,500 and 10,488 Actuals. 3. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality	Medium

						of the work done and confirming its successful completion.	
b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Inspections	7.5.3.13 - WMP.505 - Quality assurance / quality control of vegetation inspections	0	0	Document	1. Although geospatial data was received for the QA/QC of Vegetation Inspections, please identify/provide the list of inspections completed that aligns with the 17% Actuals completed. Please note, the requested listed can be provided as a GIS shapefile/geodatabase. 2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	Medium
b. Large Volume Quantifiable Goal/Target – Not Field Verifiable	Vegetation Management Areas (VMA)	7.5.3.16 - WMP.508 - Removal and remediation of trees with strike potential to electric lines and equipment	106	105	Document	1. Please provide the documentation for the completed removal and remediation of trees with strike potential for the locations identified in the attached spreadsheet "SDGE_7.5.3.16 WMP.508_Sample." 2. Please describe the reasons for the number of Vegetation Management Areas (VMA) being less than the 2022 target. 2. Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure	Medium

						the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	
QA/QC Program	Fuses	7.3.3.7 - WMP.459 - Expulsion fuse replacement	227	231	Document	Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	Medium
QA/QC Program	HLC	7.3.3.10 - WMP.464 - Maintenance, repair, and replacement of connectors, including hotline clamps	1,650	1,903	Document	Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	Medium
QA/QC Program	Arrestors	7.3.3.17.18.2 - WMP.550 - Lightning arrestor removal and replacement	1,848	2,710	Document	Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	Medium
QA/QC Program	Poles	7.3.3.17.18.3 - WMP.972 - Avian Mitigation	847	973	Document	Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This	Medium

						should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	
QA/QC Program	WFIs	7.3.2.3 - WMP.449 - Wireless Fault Indicators	500	545	Document	Please detail the QA/QC program associated with this initiative and submit all relevant QA/QC documentation. This should encompass procedures to ensure the work meets applicable standards, as well as measures for verifying the quality of the work done and confirming its successful completion.	Medium

DATA REQUEST

Data Request 011 REVISED

Data Request Date: 06-07-2023

Name: [redacted]

Email: [redacted]

Phone #: [redacted]

WMP Category: Asset Management and Inspections

Company: BVNA

Preferred Point of Contact: Email

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Program Target	Units	Sections	Target	Actual	Method	Sampling Methodology	Unit Sampling	Data Request	Priority Level
Large Volume Quantifiable Goal/Target - Not Field Verifiable	# of Inspections	Detailed inspection of distribution electric lines and equipment 7.3.4.1 - WMP 478	18,177	17,935	Document Review	315 inspections MilStd 105E General Inspection Level II	1. 15 - Tier 2 inspections 2. 5 - Tier 3 inspections	Per Data Request DRU 002, please provide inspection forms/photos based on unit sampling. See attached spreadsheet DRU 002 (Sheet 478) for Tier 2 and Tier 3 locations	High
Large Volume Quantifiable Goal/Target - Not Field Verifiable	# of Inspections	Detailed inspection of transmission electric lines and equipment 7.3.4.2 - WMP 479	2,087	2,323	Document Review	125 inspections MilStd 105E General Inspection Level II	1. 5 - Tier 2 inspections 2. 5 - Tier 3inspections	Per Data Request DRU 002, please provide inspection forms/photos based on unit sampling. See attached spreadsheet DRU 002 (Sheet 479) for Tier 2 and Tier 3 locations	High
Large Volume Quantifiable Goal/Target - Not Field Verifiable	# of Inspections	Intrusive Pole Inspections 7.3.4.6 - WMP 483	350	967	Document Review	80 inspections MilStd 105E General Inspection Level II	1. 5 - Tier 2 inspections 2. 5 - Tier 3 inspections	Per Data Request DRU 002, please provide inspection forms/photos based on unit sampling. See attached spreadsheet DRU 002 (Sheet 483) for Tier 2 and Tier 3 locations	High
Large Volume	# of	HFTD Tier 3	12,268	12,263	Documen	315	1. 5 -	Per Data Request DRU	High

Quantifiable Goal/Target - Not Field Verifiable	Inspections	distribution pole inspections 7.3.4.9.1 - WMP 551			t Review	inspections MilStd 105E General Inspection Level II	Tier 2 inspections	002, please provide inspection forms/photos based on unit sampling. See attached spreadsheet DRU 002 (Sheet 551) for Tier 3 locations	
Large Volume Quantifiable Goal/Target - Not Field Verifiable	# of Inspections	Patrol inspection of distribution electric lines and equipment 7.3.4.11 - WMP 488	86,490	86,821	Document Review	500 inspections MilStd 105E General Inspection Level II	1. 10 - Tier 2 inspections 2. 20 - Tier 3inspections	Per Data Request DRU 002, please provide inspection forms/photos based on unit sampling. See attached spreadsheet DRU 002 (Sheet 488) for Tier 2 and Tier 3 locations	High
Large Volume Quantifiable Goal/Target - Not Field Verifiable	# of Inspections	Detailed inspection of transmission electric lines and equipment 7.3.4.12 - WMP 489	6,312	6,445	Document Review	200 inspections MilStd 105E General Inspection Level II	1. 15 - Tier 2/Tier 3 inspections	Per Data Request DRU 002, please provide inspection forms/photos based on unit sampling. See attached spreadsheet DRU 002 (Sheet 489) for Tier 2 and Tier 3 locations	High
Large Volume Quantifiable Goal/Target - Not Field Verifiable	# of Inspections	Substation Inspections 7.3.4.15 - WMP 492	330	397	Document Review	50 inspections MilStd 105E General Inspection Level II	1. 5 - Tier 2 2. 5 - Tier 3 inspections	Per Data Request DRU 002, please provide inspection forms/photos based on unit sampling. See attached spreadsheet DRU 002 (Sheet 492) for Tier 2 and	High

								Tier 3 locations	

DATA REQUEST

Data Request 012 REVISED **Data Request Date: 06-07-2023**

Name: [redacted] Email: [redacted]

WMP Category: Grid Design & System Hardening Phone [redacted]

Company: BVNA Preferred Point of Contact: Email

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Program Target	Units	Sections	Target	Actual	Method	Sampling Methodology	Unit Sampling	Data Request	Priority Level
Large Volume Quantifiable Goal/Target - Not Field Verifiable	# of Generators	Generator Grant Program 7.3.3.11.1 - WMP 466	700	921	Document Review	80 MilStd 105E General Inspection Level II	1. 5 - Tier 2 2. 5 - Tier 3	Per Data Request DRU 003, please provide forms/photos for each installation based on unit sampling. See attached spreadsheet DRU 003 (Sheet 466) for Tier 2 and Tier 3 locations	High
Large Volume Quantifiable Goal/Target - Not Field	# of Generators	Standby Power Programs 7.3.3.11.2 - WMP 468	412	376	Document Review	50 MilStd 105E General	1. 5 - Tier 2 2. 5 -	Per Data Request DRU 003, please provide forms/photos for each installation based on unit	High

Verifiable						Inspection Level II	Tier 3	sampling. See attached spreadsheet DRU 003 (Sheet 468) for Tier 2 and Tier 3 locations	
Large Volume Quantifiable Goal/Target - Not Field Verifiable	# of Generators	Generator Assistance Program 7.3.3.11.3 - WMP 467	1,250	140	Document Review	20 MilStd 105E General Inspection Level II	1. 5 - Tier 2 2. 5 - Tier 3	Per Data Request DRU 003, please provide forms/photos for each installation based on unit sampling. See attached spreadsheet DRU 003 (Sheet 467) for Tier 2 and Tier 3 locations	High
Large Volume Quantifiable Goal/Target - Not Field Verifiable	# of Capacitors	Capacitor Maintenance and Replacement Program 7.3.3.1 - WMP 453	40	58	Document Review	4 Capacitors MilStd 105E General Inspection Level II	1. 3 - Tier 2 2. 1 - Tier 3	Per Data Request DRU 003, please provide forms/photos for each installation based on unit sampling. See attached spreadsheet DRU 003 (Sheet 453) for Tier 3 locations	High
Large Volume Quantifiable Goal/Target - Not Field Verifiable	# of Microgrids	Microgrids 7.3.3.8.2 - WMP 462	4	1	Document Review	1 MilStd 105E General Inspection Level II	1. 1 - Tier 2 installation	Per Data Request DRU 003, please provide forms/photos for each installation based on unit sampling. See attached spreadsheet DRU 003 (Sheet 462) for the Tier 2 location.	High
Large Volume Quantifiable Goal/Target -	# of Base Stations	Distribution Communications Reliability	25	21	Document Review	5 MilStd 105E	1. 2 - Tier 2	Per Data Request DRU 003, please provide forms/photos for each	High

Not Field Verifiable		Improvements (LTE) 7.3.3.17.18.1 - WMP 549				General Inspection Level II	2. 3 - Tier 3	installation based on unit sampling. See attached spreadsheet DRU 003 (Sheet 549) for Tier 2 and Tier 3 locations	

DATA REQUEST

Data Request 013 **Data Request Date: 06-06-2023**

Name: [redacted]

Email: [redacted]

WMP Category: Situational Awareness and Forecasting

Phone #: [redacted]

Company: BVNA

Preferred Point of Contact: Email

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Program Target	Units	Sections	Target	Actual	Method	Sampling Methodology	Unit Sampling	Data Request	Priority Level
Small Volume Quantifiable Goal/Target	# of Weather Stations	Advanced Weather Monitoring and Weather Stations 7.3.2.2.2 - WMP 447	20	50	Document Review	MilStd 105E General Inspection Level II	8 1. 2 - Tier 2 2. 6 - Tier 3	Per Data Request 006, please provide installation forms/photos based on unit sampling: See attached spreadsheet DR.006 (sheet 447) for Tier 2 and Tier 3 locations.	High
Small Volume Quantifiable Goal/Target	# of Sensors	Environmental Monitoring Systems 7.3.2.2.1 - WMP 970	6	8	Document Review	MilStd 105E General Inspection Level II	2 1. 2 - Non-HFTD	Per Data Request 006, please provide installation forms/photos based on unit sampling: See attached spreadsheet DR.006 (sheet 970) for locations.	High
Small Volume Quantifiable Goal/Target	# of Cameras	Satellite-Based Remote Sensing	8	12	Document Review	MilStd 105E General Inspection	2 1. 2 - Tier 3	Per Data Request 006, please provide installation forms/photos	High

		7.3.2.2.2 - WMP 971				Level II		based on unit sampling: See attached spreadsheet DR.006 (sheet 971) for locations.	

DATA REQUEST

Data Request 014 REVISED **Data Request Date: 06-06-2023**

Name: [redacted] Email: [redacted]

WMP Category: Vegetation Management and Inspections Phone [redacted]

Company: BVNA Preferred Point of Contact: Email

High = Critical Path, Task Dependent. Need to receive this data response first before all others.
Medium = Task Driven Not Critical. Data responses can be received secondary.
Low = Not Task Driven, Not Critical, Informational Only. Data responses can be received without pressing demands.

Program Target	Units	Sections	Target	Actual	Method	Sampling Methodology	Unit Sampling	Data Request	Priority Level
Large Volume Quantifiable Goal/Target - Not Field Verifiable	# of Poles Cleared	Fuel Management and Reduction of "Slash" from Vegetation Management Activities 7.3.5.5 - WMP 497	500	500	Document Review	MilStd 105E General Inspection Level II	1. 5 - Tier 3	Per Data Request DRU 008, please provide inspection forms/photos based on unit sampling. See attached spreadsheet DRU 008 (Sheet 497) for Tier 2 and Tier 3 locations	High

DATA REQUEST

Data Request 015

Data Request Date: 06-13-2023

Name: [redacted]

Email: [redacted]

WMP Category: Asset Management and Inspections

Phone #: [redacted]

Company: BVNA

Preferred Point of Contact: Email

High = Critical Path, Task Dependent. Need to receive this data response first before all others.
Medium = Task Driven Not Critical. Data responses can be received secondary.
Low = Not Task Driven, Not Critical, Informational Only. Data responses can be received without pressing demands.

Program Target	Units	Sections	Target	Actual	Method	Sampling Methodology	Unit Sampling	Data Request	Priority Level
Large Volume Quantifiable Goal/Target - Not Field Verifiable	N/A	Detailed inspection of distribution electric lines and equipment 7.3.4.1 - WMP 478	N/A	N/A	Document Review	N/A	N/A	1. Per SME interview on 6-13-23, please provide information in narrative form regarding the use of existing SAP program and pilot EPOCH program used to manage asset inspections within SDG&E's service territory	High

Appendix D – SME Interview Summary

Item No.	2022 WMP Activities	Initiative Category	Initiative Name	SME Name, Title	Interview Date	Summary
1	Large Volume Quantifiable Goal/Target - Non-Field Verifiable	Asset Management and Inspections	7.34.1 Detailed Inspection of Distribution Lines and Equipment	Lena McMillin - Team Lead Jennifer Kaminsky - SDG&E	06/03/23	SDG&E presented data responses for Asset Management and Inspection by reviewing their existing SAP program and how inspections are performed and then imputed into data collection program. Examples of inspection forms provided. Questions were asked by IE regarding the inspection process and QA/QC component including training and experience required for QA/QC staff. Demonstration given on Geo Call pilot tracking system.
2	Large Volume Quantifiable Goal/Target - Non-Field Verifiable	Asset Management and Inspections	7.3.4.2 Detailed Inspection of Transmission Lines and Equipment	Lena McMillin - Team Lead Jennifer Kaminsky - SDG&E	06/03/23	SDG&E presented data responses for Asset Management and Inspection by reviewing their existing SAP program and how inspections are performed and then imputed into data collection program. Examples of inspection forms provided. Questions were asked by IE regarding the inspection process and QA/QC component including training and experience required for QA/QC staff. Demonstration given on Geo Call pilot tracking system.

3	Large Volume Quantifiable Goal/Target - Non-Field Verifiable	Asset Management and Inspections	7.3.4.6 Intrusive Pole Inspections	Lena McMillin - Team Lead Jennifer Kaminsky - SDG&E	06/03/23	SDG&E presented data responses for Asset Management and Inspection by reviewing their existing SAP program and how inspections are performed and then imputed into data collection program. Examples of inspection forms provided. Questions were asked by IE regarding the inspection process and QA/QC component including training and experience required for QA/QC staff. Demonstration given on Geo Call pilot tracking system.
4	Large Volume Quantifiable Goal/Target - Non-Field Verifiable	Asset Management and Inspections	7.3.4.9.1 HFTD Tier 3 Distribution Pole Inspections	Lena McMillin - Team Lead Jennifer Kaminsky - SDG&E	06/03/23	SDG&E presented data responses for Asset Management and Inspection by reviewing their existing SAP program and how inspections are performed and then imputed into data collection program. Examples of inspection forms provided. Questions were asked by IE regarding the inspection process and QA/QC component including training and experience required for QA/QC staff. Demonstration given on Geo Call pilot tracking system.
5	Large Volume Quantifiable	Asset Management and Inspections	7.3.4.11 Patrol Inspections of Distribution	Lena McMillin - Team Lead Jennifer	06/03/23	SDG&E presented data responses for Asset Management and Inspection by reviewing their

	Goal/Target - Non-Field Verifiable		Electric Lines and Equipment	Kaminsky - SDG&E		existing SAP program and how inspections are performed and then imputed into data collection program. Examples of inspection forms provided. Questions were asked by IE regarding the inspection process and QA/QC component including training and experience required for QA/QC staff. Demonstration given on Geo Call pilot tracking system.
6	Large Volume Quantifiable Goal/Target - Non-Field Verifiable	Asset Management and Inspections	7.3.4.12 Patrol Inspections of Transmission Lines and Equipment	Lena McMillin - Team Lead Jennifer Kaminsky - SDG&E	06/03/23	SDG&E presented data responses for Asset Management and Inspection by reviewing their existing SAP program and how inspections are performed and then imputed into data collection program. Examples of inspection forms provided. Questions were asked by IE regarding the inspection process and QA/QC component including training and experience required for QA/QC staff. Demonstration given on Geo Call pilot tracking system.
7	Large Volume Quantifiable Goal/Target - Non-Field Verifiable	Asset Management and Inspections	7.3.4.15 Substation Inspections	Lena McMillin - Team Lead Jennifer Kaminsky - SDG&E	06/03/23	SDG&E presented data responses for Asset Management and Inspection by reviewing their existing SAP program and how inspections are performed and then imputed into data collection

						program. Examples of inspection forms provided. Questions were asked by IE regarding the inspection process and QA/QC component including training and experience required for QA/QC staff. Demonstration given on Geo Call pilot tracking system.
8	Qualitative Goal/Target	Asset Management and Inspections	7.3.4.14 Quality Assurance/Quality Control of Inspections	Lena McMillin - Team Lead Jennifer Kaminsky - SDG&E	06/03/23	Information provided on qualifications, training and experience for managers fulfilling QA/QC process as well as number of QA/QC's performed annually.
9	Large Volume Quantifiable Goal/Target – Not Field Verifiable	Vegetation Management and Inspections	7.3.5.2 - WMP.494 - Detailed inspections of vegetation around distribution electric lines and equipment	Erin Huszar, GIS Analyst	06/06/23	Geodatabase for completion reporting - Demonstration of the geodatabase used to track and record completion for multiple initiatives. Explanation of how data is aggregated for locations that account for multiple observations for initiatives. SDG&E considers variations of 10% +/- of the GIS reported numbers to be substantially complete.
10	Large Volume Quantifiable Goal/Target – Not Field Verifiable	Vegetation Management and Inspections	7.3.5.9 - WMP.501 - Other discretionary inspection of vegetation around distribution	Erin Huszar, GIS Analyst	06/06/23	Geodatabase for completion reporting - Demonstration of the geodatabase used to track and record completion for multiple initiatives. Explanation of how data is aggregated for locations that account for multiple observations

			electric lines and equipment, beyond inspections mandated by rules and regulations			for initiatives. SDG&E considers variations of 10% +/- of the GIS reported numbers to be substantially complete.
11	Large Volume Quantifiable Goal/Target – Not Field Verifiable	Vegetation Management and Inspections	7.3.5.20 - WMP.512 - Vegetation management to achieve clearances around electric lines and equipment	Erin Huszar, GIS Analyst	06/06/23	Geodatabase for completion reporting - Demonstration of the geodatabase used to track and record completion for multiple initiatives. Explanation of how data is aggregated for locations that account for multiple observations for initiatives. SDG&E considers variations of 10% +/- of the GIS reported numbers to be substantially complete.
12	Small (less than 100 items) Volume Quantifiable Goal/Target	Grid Design & System Hardening	7.3.3.3 - WMP.455 - Covered conductor installation	Erin Huszar, GIS Analyst	06/06/23	Geodatabase for completion reporting - Demonstration of the geodatabase used to track and record completion for multiple initiatives. Explanation of how data is aggregated for locations that account for multiple observations for initiatives. SDG&E considers variations of 10% +/- of the GIS reported numbers to be substantially complete.

13	Small (less than 100 items) Volume Quantifiable Goal/Target	Grid Design & System Hardening	7.3.3.16 - WMP.473 - Undergrounding of electric lines and/or equipment	Erin Huszar, GIS Analyst	06/06/23	Geodatabase for completion reporting - Demonstration of the geodatabase used to track and record completion for multiple initiatives. Explanation of how data is aggregated for locations that account for multiple observations for initiatives. SDG&E considers variations of 10% +/- of the GIS reported numbers to be substantially complete.
14	Small (less than 100 items) Volume Quantifiable Goal/Target	Grid Design & System Hardening	7.3.3.16 - WMP.473 - Undergrounding of electric lines and/or equipment	Kyle Marshall, QA/QC Electric Construction Supervisor, Portfolio & Project Management QA/QC Rick Borden, QA/QC Services Supervisor Joe Illustrisimo, Construction Manager	6/15/2023	Quality Control and Quality Assurance for Distribution Undergrounding - Explanation of the QA/QC process pertaining to distribution undergrounding. Less QA/QC interface for undergrounding process because equipment is not accessible post construction and wildfire risk is reduced by the project. QA/QC is involved in engineering design and preconstruction. Construction managers validate as-builts post-construction and as-builts are submitted to SDG&E's system of record.

Appendix E – 2022 WMP Funding Verification Summary

Initiative Category	2022 Initiative Number	Initiative Name	2022 WMP Page No.	2022 O&M Planned	2022 O&M Actual	2022 O&M Vari.	2022 O&M Change (%)	2022 Cap. Planned	2022 Cap. Actual	2022 Cap. Variance	2022 Cap. Change (%)	2022 Total Planned	2022 Total Actual	2022 Total Change (%)	2022 Funding Discrepancy Amount	2022 Detail of Funding Discrepancy
Risk Assessment and Mapping	7.3.1.1	A summarized risk map that shows the overall ignition probability and estimated wildfire consequence along the electric lines and equipment	196	$ 3,697.20	$ 3,734.87	$ 37.67	1%	$ 242.55	$ -	$ (242.55)	-	$ 3,939.75	$ 3,734.87	-5%	O&M Overspend Capital Underspend: Variance Amount $0M - $1M	SDG&E's 2022 WMP ARC, dated April 3, 2023, spend did not match Appendix A, labeled ARC Summary, showing SDG&E did not spend $242.55K of the planned $242.55k.of the total Capital amount initially allocated for this initiative. However, the WMP ARC, page 6 shows an overspend $1,243.28 above the planned $242.55k.of the total Capital amount initially allocated for this initiative.
Situational Awareness and Forecasting	7.3.2.1	Advanced weather monitoring and weather stations	202	$ -	$ -	$ -	-	$ 525.26	$ 539.46	$ 14.21	3%	$ 525.26	$ 539.46	3%	O&M Overspend Capital Overspend	
Situational Awareness and Forecasting	7.3.2.2.1	Air Quality Index	203	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Situational Awareness and Forecasting	7.3.2.2.2	Camera Network (Satellite-Based Remote Sensing)	202	$ -	$ -	$ -	-	$ -	$ 3.29	$ 3.29	-	$ -	$ 3.29	-	O&M Overspend Capital Overspend	
Situational Awareness and Forecasting	7.3.2.3	Wireless Fault Indicators	205	$ -	$ -	$ -	-	$ 686.75	$ 845.97	$ 159.22	23%	$ 686.75	$ 845.97	23%	O&M Overspend	

															Capital Overspend	
Situational Awareness and Forecasting	7.3.2.4.1	Fire potential index	207	$ 2,353.91	$ 1,818.23	$ (535.68)	-23%	$ 2,200.00	$ 1,632.00	$ (567.87)	-26%	$ 4,553.91	$ 3,450.23	-24%	O&M Underspend: Variance Amount $0M - $1M Capital Underspend: Variance Amount $0M - $1M	SDG&E did not spend $535.7K of the planned $2.35M, 23% of the total O&M amount initially allocated for this initiative. The underspend in O&M costs are due to software invoicing being delayed until 2023. SDG&E did not spend $567.9K of the planned $2.2M, 26% of the total Capital amount initially allocated for this initiative. The underspend in Capital costs are due to software invoicing being delayed until 2023.
Situational Awareness and Forecasting	7.3.2.4.2	Santa Ana Wildfire Threat Index	208	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Situational Awareness and Forecasting	7.3.2.4.3	High-Performance Computing Infrastructure	208	$ -	$ -	$ -	-	$ 5,500.00	$ 5,224.32	$ (275.68)	-5%	$ 5,500.00	$ 5,224.32	-5%	O&M Overspend Capital Underspend: Variance Amount $0M - $1M	SDG&E did not spend $275.7K of the planned $5.5M, 5% of the total Capital amount initially allocated for this initiative.
Situational Awareness and Forecasting	7.3.2.5	Personnel monitoring areas of electric lines and equipment in	209	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	

		elevated fire risk conditions														
Grid Design and System Hardening	7.3.3.1	Capacitor maintenance and replacement program	212	$ -	$ -	$ -	-	$ 3,230.75	$ 3,509.43	$ 278.67	9%	$ 3,230.75	$ 3,509.43	9%	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.3	Covered conductor installation	213	$ 594.29	$ 3,220.85	$ 2,626.56	442%	$ 124,643.00	$ 89,512.00	$ (35,131.35)	-28%	$ 125,237.29	$ 92,732.85	-26%	O&M Overspend Capital Underspend: Variance Amount $20M - $50M	SDG&E did not spend $35.13M of the planned $124.64M, 28% of the total Capital amount initially allocated for this initiative. The underspend of capital was due to completing work more efficiently that originally forecasted. SDG&E was able to complete 100% of the target work while spending less than originally forecasted. The overspend in O&M was due to improved identification of O&M costs in the source system since the initial spend was projected.
Grid Design and System Hardening	7.3.3.6	Distribution pole replacement and reinforcement, including with composite poles	216	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.7	Expulsion fuse replacement	217	$ -	$ -	$ -	-	$ 734.00	$ 631.39	$ (102.61)	-14%	$ 734.00	$ 631.39	-14%	O&M Overspend Capital Underspend: Variance Amount $0M - $1M	SDG&E did not spend $102.6K of the planned $0.73M, 14% of the total Capital amount initially allocated for this initiative.

Grid Design and System Hardening	7.3.3.8.1	PSPS sectionalizing enhancements	218	$ -	$ -	$ -	-	$ 1,909.68	$ 2,382.67	$ 472.99	25%	$ 1,909.68	$ 2,382.67	25%	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.8.2	Microgrids	219	$ 1,607.28	$ 1,304.02	$ (303.26)	-19%	$ 13,309.08	$ 2,697.30	$ (10,611.78)	-80%	$ 14,916.36	$ 4,001.32	-73%	O&M Underspend: Variance Amount $0M - $1M Capital Underspend: Variance Amount $10M - $20M	SDG&E did not spend $303.3K of the planned $1.61M, 19% of the total O&M amount initially allocated for this initiative. Delays have shifted spend from 2022 into 2023. SDG&E did not spend $10.61M of the planned $13.31M, 80% of the total Capital amount initially allocated for this initiative. Delays have shifted spend from 2022 into 2023.
Grid Design and System Hardening	7.3.3.9	Installation of system automation equipment	221	$ -	$ 152.31	$ 152.31	-	$ 12,937.92	$ 23,822.12	$ 10,884.20	84%	$ 12,937.92	$ 23,974.43	85%	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.10	Maintenance, repair, and replacement of connectors, including hotline clamps	223	$ 4,320.56	$ 1,781.40	$ (2,539.15)	-59%	$ -	$ -	$ -	-	$ 4,320.56	$ 1,781.40	-59%	O&M Underspend: Variance Amount $1M - $5M Capital Overspend	SDG&E did not spend $2.54M of the planned $4.32M, 59% of the total O&M amount initially allocated for this initiative. The reduced spend can be attributed to efficiencies gained in the construction process. SDG&E condensed the

																work of three budgets into one work mobilization resulting in savings on labor and equipment.
Grid Design and System Hardening	7.3.3.11.1	Generator Grant Programs	225	$ 10,400.00	$ 3,550.40	$ (6,849.60)	-66%	$ -	$ -	$ -	-	$ 10,400.00	$ 3,550.40	-66%	O&M Underspend: Variance Amount $5M - $10M Capital Overspend	SDG&E did not spend $6.85M of the planned $10.4M, 66% of the total O&M amount initially allocated for this initiative. SDG&E had lower than expected expenditures associated with the Generator Grant Program in 2022 due to the revised target submitted as part of SDG&E's Change Order Report filed on October 14, 2022.
Grid Design and System Hardening	7.3.3.11.2	Standby Power Programs	226	$ 10,350.00	$ 12,043.42	$ 1,693.42	16%	$ -	$ -	$ -	-	$ 10,350.00	$ 12,043.42	16%	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.11.3	Generator Assistance Programs	228	$ 1,828.00	$ 758.99	$ (1,069.01)	-58%	$ -	$ -	$ -	-	$ 1,828.00	$ 758.99	-58%	O&M Underspend: Variance Amount $1M - $5M Capital Overspend	SDG&E did not spend $1.07M of the planned $1.83M, 58% of the total O&M amount initially allocated for this initiative. SDG&E had lower-than-expected expenditures associated with the Generator Assistance Program in 2022 because SDG&E did not experience any PSPS events. The lack of PSPS activations drove

																participation in SDG&E's resiliency programs down in 2022.
Grid Design and System Hardening	7.3.3.16	Undergrounding of electric lines and/or equipment	230	$ 1,048.58	$ 175.55	$ (873.02)	-83%	$ 188,844.66	$ 126,675.09	$ (62,169.57)	-33%	$ 189,893.24	$ 126,850.64	-33%	O&M Underspend: Variance Amount $0M - $1M Capital Underspend: Variance Amount over $50M	SDG&E did not spend $873K of the planned $1.05M, 83% of the total O&M amount initially allocated for this initiative. Two primary factors resulted in SDG&E's reduced costs associated with strategic undergrounding. The first is that SDG&E was able to more efficiently construct the new underground circuits through development of new construction standards, including allowances for a shallower trench, which helped to reduce undergrounding construction costs on a per-mile basis. The second is that the projects completed in 2022 did not run into any subsurface conditions that required significant re-routes or alternate construction methods. SDG&E did not spend $62.17M of the planned $188.84M, 33% of the total Capital amount initially allocated for this initiative.

																Two primary factors resulted in SDG&E's reduced costs associated with strategic undergrounding. The first is that SDG&E was able to more efficiently construct the new underground circuits through development of new construction standards, including allowances for a shallower trench, which helped to reduce undergrounding construction costs on a per-mile basis. The second is that the projects completed in 2022 did not run into any subsurface conditions that required significant re-routes or alternate construction methods.
Grid Design and System Hardening	7.3.3.17.1	Traditional hardening distribution overhead system hardening	234	$ 178.33	$ 3,249.08	$ 3,070.75	1722%	$ 16,311.54	$ 23,267.67	$ 6,956.13	43%	$ 16,489.87	$ 26,516.75	61%	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.17.2	Overhead transmission fire hardening	235	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.17.2	Underground transmission fire hardening (Transmission)	235	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	

Grid Design and System Hardening	7.3.3.17.2	Overhead transmission fire hardening (Distribution Underbuilt)	235	$ -	$ -	$ -	-	$ 4,272.71	$ 3,237.21	$ (1,035.50)	-24%	$ 4,272.71	$ 3,237.21	-24%	O&M Overspend Capital Underspend: Variance Amount $1M - $5M	SDG&E did not spend $1.04M of the planned $4.27M, 24% of the total Capital amount initially allocated for this initiative. The decreased expenditure is due to delays in construction and only partial completion of the targeted miles.
Grid Design and System Hardening	7.3.3.17.3	CNF MSUP Powerline Replacement Program (Transmission)	237	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.17.3	CNF (Distributon Underground)	237	$ -	$ -	$ -	-	$ 617.55	$ 717.76	$ 100.20	16%	$ 617.55	$ 717.76	16%	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.17.3	CNF(Distribution Overhead)	237	$ 1,900.03	$ 2,212.35	$ 312.32	16%	$ 752.51	$ 874.61	$ 122.10	16%	$ 2,652.54	$ 3,086.96	16%	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.18.1	Distribution Communications Reliability Improvements (LTE)	240	$ -	$ 714.39	$ 714.39	-	$ 70,641.54	$ 45,177.26	$ (25,464.28)	-36%	$ 70,641.54	$ 45,891.65	-35%	O&M Overspend Capital Underspend: Variance Amount $20M - $50M	SDG&E did not spend $25.46M of the planned $70.64M, 36% of the total Capital amount initially allocated for this initiative. The reduction in Capital expenditure is due to not receiving Spectrum License purchase resulting from Federal Communications Commission (FCC) delays. The unplanned

																O&M spend is due to unforeseen costs associated with software licensing and rent reclass at multiple sites.
Grid Design and System Hardening	7.3.3.18.2	Lightning arrestor removal and replacement	241	$ -	$ -	$ -	-	$ 2,877.05	$ 3,296.74	$ 419.69	15%	$ 2,877.05	$ 3,296.74	15%	O&M Overspend Capital Overspend	
Grid Design and System Hardening	7.3.3.18.3	Avian Mitigation	243	$ -	$ 15.65	$ 15.65	-	$ 3,081.20	$ 1,850.81	$ (1,230.39)	-40%	$ 3,081.20	$ 1,866.46	-39%	O&M Overspend Capital Underspend: Variance Amount $1M - $5M	SDG&E did not spend $1.23M of the planned $3.08M, 40% of the total Capital amount initially allocated for this initiative. The reduced Capital spend is due to a reduction in forecasted units to be completed for 2023 which led to decreased design and engineering costs in 2022. Minor unplanned O&M expenditures arose during the work performed in 2022.
Asset Management and Inspections	7.3.4.1	Detailed inspections of distribution electric lines and equipment	248	$ 1,155.38	$ 1,195.30	$ 39.92	3%	$ 11,406.41	$ 13,924.91	$ 2,518.50	22%	$ 12,561.79	$ 15,120.21	20%	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.2	Detailed inspections of transmission electric lines and equipment	249	$ -	$ 0.03	$ 0.03	-	$ 576.11	$ 489.81	$ (86.30)	-15%	$ 576.11	$ 489.84	-15%	O&M Overspend Capital Underspend: Variance Amount $0M - $1M	SDG&E did not spend $86.3K of the planned $0.58M, 15% of the total Capital amount initially allocated for this initiative.
Asset Management	7.3.4.4	Infrared inspections of distribution	251	$ 174.57	$ 158.93	$ (15.64)	-9%	$ -	$ -	$ -	-	$ 174.57	$ 158.93	-9%	O&M Underspend:	SDG&E did not spend $15.6K of the planned

and Inspections		electric lines and equipment													Variance Amount $0M - $1M Capital Overspend	$0.17M, 9% of the total O&M amount initially allocated for this initiative.
Asset Management and Inspections	7.3.4.5	Infrared inspections of transmission electric lines and equipment	253	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.6	Intrusive Pole Inspections	255	$ 24.00	$ 39.41	$ 15.41	64%	$ -	$ -	$ -	-	$ 24.00	$ 39.41	64%	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.7	LiDAR inspections of distribution electric lines and equipment	257	$ 3,000.00	$ 3,000.12	$ 0.12	0%	$ -	$ -	$ -	-	$ 3,000.00	$ 3,000.12	0%	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.8	LiDAR inspections of transmission electric lines and equipment	258	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.9.1	HFTD Tier 3 distribution pole inspections	259	$ 384.10	$ 342.42	$ (41.68)	-11%	$ -	$ -	$ -	-	$ 384.10	$ 342.42	-11%	O&M Underspend: Variance Amount $0M - $1M Capital Overspend	SDG&E did not spend $41.7K of the planned $0.38M, 11% of the total O&M amount initially allocated for this initiative.
Asset Management and Inspections	7.3.4.9.2	Drone assessments of distribution infrastructure	261	$ 52,000.00	$ 45,222.71	$ (6,777.29)	-13%	$ 26,402.38	$ 51,741.01	$ 25,338.64	96%	$ 78,402.38	$ 96,963.72	24%	O&M Underspend: Variance Amount $5M - $10M Capital Overspend	SDG&E did not spend $6.78M of the planned $52M, 13% of the total O&M amount initially allocated for this initiative.

Asset Management and Inspections	7.3.4.10.1	Drone Assessments of transmission Infrastructure	266	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.10.2	Additional Transmission Aerial 69kV Tier 3 Visual Inspection	268	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.11	Patrol inspections of distribution electric lines and equipment	270	$ 278.77	$ 285.06	$ 6.29	2%	$ -	$ -	$ -	-	$ 278.77	$ 285.06	2%	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.12	Patrol inspections of transmission electric lines and equipment	271	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.14	Quality assurance / quality control of inspections	272	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Asset Management and Inspections	7.3.4.15	Substation inspections	280	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Vegetation Management and Inspections	7.3.5.1	Additional efforts to manage community and environmental impacts	280	$ 1,000.00	$ 872.17	$ (127.83)	-13%	$ -	$ -	$ -	-	$ 1,000.00	$ 872.17	-13%	O&M Underspend: Variance Amount $0M - $1M Capital Overspend	SDG&E did not spend $127.8K of the planned $1M, 13% of the total O&M amount initially allocated for this initiative.
Vegetation Management and Inspections	7.3.5.2	Detailed inspections of vegetation around distribution electric lines and equipment	283	$ 55,699.52	$ 59,775.66	$ 4,076.14	7%	$ -	$ -	$ -	-	$ 55,699.52	$ 59,775.66	7%	O&M Overspend Capital Overspend	

Vegetation Management and Inspections	7.3.5.5	Fuel management and reduction of "slash" from vegetation management activities	288	$ 6,377.49	$ 7,895.53	$ 1,518.04	24%	$ -	$ -	$ -	-	$ 6,377.49	$ 7,895.53	24%	O&M Overspend Capital Overspend	
Vegetation Management and Inspections	7.3.5.7	LiDAR inspections of vegetation around distribution electric lines and equipment	292	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Vegetation Management and Inspections	7.3.5.9	Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations	292	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Vegetation Management and Inspections	7.3.5.13	Quality assurance / quality control of vegetation inspections	293	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Vegetation Management and Inspections	7.3.5.14	Recruiting and training vegetation management personnel	294	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Vegetation Management and Inspections	7.3.5.15	Remediation of at-risk species	296	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Vegetation Management and Inspections	7.3.5.16	Removal and remediation of trees with strike potential to electric lines and equipment	299	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Vegetation Management and Inspections	7.3.5.19	Vegetation inventory system	300	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend	

															Capital Overspend	
Vegetation Management and Inspections	7.3.5.20	Vegetation management to achieve clearances around electric lines and equipment	302	$ 5,800.00	$ 6,104.91	$ 304.91	5%	$ -	$ -	$ -	-	$ 5,800.00	$ 6,104.91	5%	O&M Overspend Capital Overspend	
Grid Operations and Protocols	7.3.6.3	Crew-accompanying ignition prevention and suppression resources and services	307	$ 3,229.60	$ 3,073.87	$ (155.73)	5%	$ -	$ -	$ -	-	$ 3,229.60	$ 3,073.87	-5%	O&M Underspend: Variance Amount $0M - $1M Capital Overspend	SDG&E did not spend $155.7K of the planned $3.23M, -5% of the total O&M amount initially allocated for this initiative.
Grid Operations and Protocols	7.3.6.4	Personnel work procedures and training in conditions of elevated fire risk	308	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Grid Operations and Protocols	7.3.6.5	Protocols for PSPS re-energization	309	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Grid Operations and Protocols	7.3.6.6	PSPS events and mitigation of PSPS impacts	311	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Grid Operations and Protocols	7.3.6.7.1	Aviation Firefighting Program	312	$ 9,324.80	$ 7,396.25	$ (1,928.55)	-21%	$ 23,672.12	$ 11,437.07	$ (12,235.05)	-52%	$ 32,996.92	$ 18,833.32	-43%	O&M Underspend: Variance Amount $1M - $5M Capital Underspend: Variance Amount $10M - $20M	SDG&E did not spend $1.93M of the planned $9.32M, 21% of the total O&M amount initially allocated for this initiative. O&M decreased expenditure is due primarily to fewer flight hours than expected. SDG&E did not spend

																$12.24M of the planned $23.67M, 52% of the total Capital amount initially allocated for this initiative. The underspend in Capital is due to delays in obtaining FAA approval of materials and kits.
Data Governance	7.3.7.1	Centralized repository for data	315	$ 1,490.26	$ 1,304.99	$ (185.27)	-12%	$ 26,978.15	$ 14,993.41	$ (11,984.74)	-40%	$ 28,468.41	$ 16,298.40	-43%	O&M Underspend: Variance Amount $0M - $1M Capital Underspend: Variance Amount $10M - $20M	SDG&E did not spend $185.3K of the planned $1.49M, 12% of the total O&M amount initially allocated for this initiative. SDG&E did not spend $11.98M of the planned $26.98M, 40% of the total Capital amount initially allocated for this initiative. The Capital expenditure decreased due to more accurate allocation of costs for the Enterprise Asset Management Platform (now known as Asset 360), delayed go-live date for Investment Prioritization (now known as Investment Prioritization & Optimization), and a reduction of scope (WMP advanced analytics).
Data Governance	7.3.7.2	Collaborative research on utility	317	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend	

		ignition and/or wildfire													Capital Overspend	
Data Governance	7.3.7.3	Documentation and disclosure of wildfire-related data and algorithms	318	$ -	$ -	$ -	-	$ 3,992.73	$ 3,680.40	$ (312.33)	-8%	$ 3,992.73	$ 3,680.40	-8%	O&M Overspend Capital Underspend: Variance Amount $0M - $1M	SDG&E did not spend $312.3K of the planned $3.99M, 8% of the total Capital amount initially allocated for this initiative.
Data Governance	7.3.7.4.1	Ignition management program	318	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Data Governance	7.3.7.4.2	Reliability database	319	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Resource Allocation Methodology	7.3.8.1	Allocation methodology development and application	320	$ 4,785.88	$ 3,966.63	$ (819.25)	-17%	$ -	$ -	$ -	-	$ 4,785.88	$ 3,966.63	-17%	O&M Underspend: Variance Amount $0M - $1M Capital Overspend	SDG&E did not spend $819.3K of the planned $4.79M, 17% of the total O&M amount initially allocated for this initiative.
Resource Allocation Methodology	7.3.8.3	Risk spend efficiency analysis - not include PSPS	324	$ -	$ -	$ -	-	$ -	$ 1,485.83	$ 1,485.83	-	$ -	$ 1,485.83	-	O&M Overspend Capital Overspend	
Emergency Planning and Preparedness	7.3.9.1	Adequate and trained workforce for service restoration	325	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Emergency Planning and Preparedness	7.3.9.2	Community outreach, public awareness, and communications efforts	326	$ 15,170.40	$ 12,381.77	$ (2,788.63)	-18%	$ 8,848.44	$ 2,765.56	$ (6,082.89)	-69%	$ 24,018.84	$ 15,147.33	-37%	O&M Underspend: Variance Amount $1M - $5M	SDG&E did not spend $2.79M of the planned $15.17M, 18% of the total O&M amount initially allocated for this

															Capital Underspend: Variance Amount $5M - $10M	initiative. SDG&E did not spend $6.08M of the planned $8.85M, 69% of the total Capital amount initially allocated for this initiative. The underspend in Capital is due to delayed project starts for enhancing the Emergency Notification System (ENS). SDG&E is exploring additional platforms that can assist with accessible communications and is engaged with stakeholders and subject matter experts. This is an ongoing effort with expected project start in 2023.
Emergency Planning and Preparedness	7.3.9.3	Customer support in emergencies	331	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Emergency Planning and Preparedness	7.3.9.4	Disaster and emergency preparedness plan	335	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Emergency Planning and Preparedness	7.3.9.5	Preparedness and planning for service restoration	336	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	
Emergency Planning and Preparedness	7.3.9.6	Protocols in place to learn from wildfire events	338	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend	

															Capital Overspend	
Stakeholder Cooperation and Community Engagement	7.3.10.1	Community outreach, public awareness, and communications efforts (emergency)	340	$ 600.00	$ 398.25	$ (201.75)	-34%	$ -	$ -	$ -	-	$ 600.00	$ 398.25	-34%	O&M Underspend: Variance Amount $0M - $1M Capital Overspend	SDG&E did not spend $201.8K of the planned $0.6M, 34% of the total O&M amount initially allocated for this initiative.
Stakeholder Cooperation and Community Engagement	7.3.10.1.1	PSPS communication practices	342	$ 11,062.26	$ 9,477.78	$ (1,584.47)	-14%	$ 5,363.74	$ 5,404.77	$ 41.03	1%	$ 16,426.00	$ 14,882.55	-9%	O&M Underspend: Variance Amount $1M - $5M Capital Overspend	SDG&E did not spend $1.58M of the planned $11.06M, 14% of the total O&M amount initially allocated for this initiative.
Stakeholder Cooperation and Community Engagement	7.3.10.3	Cooperation with suppression agencies	348	$ -	$ -	$ -	-	$ -	$ -	$ -	-	$ -	$ -	-	O&M Overspend Capital Overspend	

Appendix F – Conclusion Table

SOW Category	2022 Initiative Number	Initiative Name	Finding	Detail on Finding
Verification of Funding	7.3.1.1 - WMP.442	A summarized risk map that shows the overall ignition probability and estimated wildfire consequence along the electric lines and equipment	O&M Overspend Capital Underspend: Variance Amount $0M - $1M	SDG&E's 2022 WMP ARC, dated April 3, 2023, spend did not match Appendix A, labeled ARC Summary, showing SDG&E did not spend $242.55K of the planned $242.55k.of the total Capital amount initially allocated for this initiative. However, the WMP ARC, page 6 shows an overspend $1,243.28 above the planned $242.55k.of the total Capital amount initially allocated for this initiative.
WMP Activity Verification	7.3.10.1 - WMP.532	Community outreach, public awareness, and communications efforts	Activity Ongoing	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.10.1 - WMP.532	Community outreach, public awareness, and communications efforts	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.10.1 - WMP.532	Community outreach, public awareness, and communications efforts (emergency)	O&M Underspend: Variance Amount $0M - $1M Capital Overspend	SDG&E did not spend $201.8K of the planned $0.6M, 34% of the total O&M amount initially allocated for this initiative.
WMP Activity Verification	7.3.10.1 - WMP.563	PSPS communication practices	Activity Ongoing	Compliant with the 2022 WMP

Verification of Funding	7.3.10.1.1 - WMP.563	PSPS communication practices	O&M Underspend: Variance Amount $1M - $5M Capital Overspend	SDG&E did not spend $1.58M of the planned $11.06M, 14% of the total O&M amount initially allocated for this initiative.
WMP Activity Verification	7.3.10.3 - WMP.1011	Cooperation with suppression agencies	Activity Ongoing	Compliant with the 2022 WMP
Verification of Funding	7.3.10.3 - WMP.1011	Cooperation with suppression agencies	O&M Overspend Capital Overspend	
Verification of Funding	7.3.2.1 - WMP.447	Advanced weather monitoring and weather stations	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.2.2.1 - WMP.970	Air Quality Index-Environmental Monitoring System	Activity Completed	Compliant with the 2022 WMP
WMP Activity Verification	7.3.2.2.1 - WMP.970	Air Quality Index-Environmental Monitoring System	Activity Completed	Compliant with the 2022 WMP
Verification of Funding	7.3.2.2.1 - WMP.970	Air Quality Index	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.2.2.2 - WMP.447	Advanced weather monitoring and weather stations	Activity Completed	Compliant with the 2022 WMP

WMP Activity Verification	7.3.2.2.2 - WMP.447	Advanced weather monitoring and weather stations	Activity Completed	Compliant with the 2022 WMP
WMP Activity Verification	7.3.2.2.2 - WMP.971	Camera Network-Satellite-Based Remote Sensing	Activity Completed	Compliant with the 2022 WMP
WMP Activity Verification	7.3.2.2.2 - WMP.971	Camera Network-Satellite-Based Remote Sensing	Activity Completed	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.2.2.2 - WMP.971	Satellite-based remote sensing	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.2.2.2 - WMP.971	Camera Network (Satellite-Based Remote Sensing)	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.2.3 - WMP.449	Wireless Fault Indicators	Activity Field Verified. 315 Field Samples	Goal met/ exceeded
Verification of QA/QC Programs	7.3.2.3 - WMP.449	Wireless Fault Indicators	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.2.3 - WMP.449	Wireless Fault Indicators	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.2.4.1 - WMP.450	Fire potential index	Activity Ongoing	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.2.4.1 - WMP.450	Fire potential index	Activity Validated	Compliant with the 2022 WMP

Verification of Funding	7.3.2.4.1 - WMP.450	Fire potential index	O&M Underspend: Variance Amount $0M - $1M Capital Underspend: Variance Amount $0M - $1M	SDG&E did not spend $535.7K of the planned $2.35M, 23% of the total O&M amount initially allocated for this initiative. The underspend in O&M costs are due to software invoicing being delayed until 2023. SDG&E did not spend $567.9K of the planned $2.2M, 26% of the total Capital amount initially allocated for this initiative. The underspend in Capital costs are due to software invoicing being delayed until 2023.
WMP Activity Verification	7.3.2.4.2 - WMP.540	Santa Ana wildfire threat index	Activity Ongoing	Compliant with the 2022 WMP
Verification of Funding	7.3.2.4.2 - WMP.540	Santa Ana Wildfire Threat Index	O&M Overspend Capital Overspend	
Verification of QA/QC Programs	7.3.2.4.2 - WMP.540	Santa Ana wildfire threat index	Activity Validated	Compliant with the 2022 WMP
WMP Activity Verification	7.3.2.4.3 - WMP.541	High-performance computing infrastructure	Activity Ongoing	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.2.4.3 - WMP.541	High-performance computing infrastructure	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.2.4.3 - WMP.541	High-Performance Computing Infrastructure	O&M Overspend Capital Underspend:	SDG&E did not spend $275.7K of the planned $5.5M, 5% of the total Capital amount initially allocated for this initiative.

			Variance Amount $0M - $1M	
WMP Activity Verification	7.3.2.5 - WMP.451	Personnel monitoring areas of electric lines and equipment in elevated fire risk conditions	Activity Ongoing	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.2.5 - WMP.451	Personnel monitoring areas of electric lines and equipment in elevated fire risk conditions	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.2.5 - WMP.451	Personnel monitoring areas of electric lines and equipment in elevated fire risk conditions	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.3.1 - WMP.442	A summarized risk map that shows the overall ignition probability and estimated wildfire consequence along the electric lines and equipment	Activity Ongoing	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.3.1 - WMP.442	A summarized risk map that shows the overall ignition probability and estimated wildfire consequence along the electric lines and equipment	Activity Validated	Compliant with the 2022 WMP
WMP Activity Verification	7.3.3.1 - WMP.453	Capacitor maintenance and replacement program	Activity Completed	Compliant with the 2022 WMP
WMP Activity Verification	7.3.3.1 - WMP.453	Capacitor maintenance and replacement program	Activity Completed	Compliant with the 2022 WMP

Verification of QA/QC Programs	7.3.3.1 - WMP.453	Capacitor maintenance and replacement program	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.3.1 - WMP.453	Capacitor maintenance and replacement program	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.3.10 - WMP.464	Maintenance, repair, and replacement of connectors, including hotline clamps	Activity Field Verified. 196 Field Samples	Goal met/ exceeded 1 Structure was found 120-feet from Provided Coordinates
Verification of QA/QC Programs	7.3.3.10 - WMP.464	Maintenance, repair, and replacement of connectors, including hotline clamps	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.3.10 - WMP.464	Maintenance, repair, and replacement of connectors, including hotline clamps	O&M Underspend: Variance Amount $1M - $5M Capital Overspend	SDG&E did not spend $2.54M of the planned $4.32M, 59% of the total O&M amount initially allocated for this initiative. The reduced spend can be attributed to efficiencies gained in the construction process. SDG&E condensed the work of three budgets into one work mobilization resulting in savings on labor and equipment.
WMP Activity Verification	7.3.3.11.1 - WMP.466	Generator Grant Programs	Activity Completed	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.3.11.1 - WMP.466	Generator Grant Programs	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.3.11.1 - WMP.466	Generator Grant Programs	O&M Underspend:	SDG&E did not spend $6.85M of the planned $10.4M, 66% of the total O&M amount initially

			Variance Amount $5M - $10M Capital Overspend	allocated for this initiative. SDG&E had lower than expected expenditures associated with the Generator Grant Program in 2022 due to the revised target submitted as part of SDG&E's Change Order Report filed on October 14, 2022.
WMP Activity Verification	7.3.3.11.2 - WMP.468	Standby Power Programs	Activity Completed	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.3.11.2 - WMP.468	WMP.468 - Standby Power Programs	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.3.11.2 - WMP.468	Standby Power Programs	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.3.11.3 - WMP.467	Generator Assistance Programs	Activity Completed	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.3.11.3 - WMP.467	Generator Assistance Programs	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.3.11.3 - WMP.467	Generator Assistance Programs	O&M Underspend: Variance Amount $1M - $5M Capital Overspend	SDG&E did not spend $1.07M of the planned $1.83M, 58% of the total O&M amount initially allocated for this initiative. SDG&E had lower-than-expected expenditures associated with the Generator Assistance Program in 2022 because SDG&E did not experience any PSPS events. The lack of PSPS activations drove participation in SDG&E's resiliency programs down in 2022.

WMP Activity Verification	7.3.3.16 - WMP.473	Undergrounding of electric lines and/or equipment	Activity Completed	Compliant with the 2022 WMP
WMP Activity Verification	7.3.3.16 - WMP.473	Undergrounding of electric lines and/or equipment	Activity Completed	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.3.16 - WMP.473	Undergrounding of electric lines and/or equipment	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.3.16 - WMP.473	Undergrounding of electric lines and/or equipment	O&M Underspend: Variance Amount $0M - $1M Capital Underspend: Variance Amount over $50M	SDG&E did not spend $873K of the planned $1.05M, 83% of the total O&M amount initially allocated for this initiative. Two primary factors resulted in SDG&E's reduced costs associated with strategic undergrounding. The first is that SDG&E was able to more efficiently construct the new underground circuits through development of new construction standards, including allowances for a shallower trench, which helped to reduce undergrounding construction costs on a per-mile basis. The second is that the projects completed in 2022 did not run into any subsurface conditions that required significant re-routes or alternate construction methods. SDG&E did not spend $62.17M of the planned $188.84M, 33% of the total Capital amount initially allocated for this initiative. Two primary factors resulted in SDG&E's reduced costs associated with strategic undergrounding. The first is that SDG&E was able to more

				efficiently construct the new underground circuits through development of new construction standards, including allowances for a shallower trench, which helped to reduce undergrounding construction costs on a per-mile basis. The second is that the projects completed in 2022 did not run into any subsurface conditions that required significant re-routes or alternate construction methods.
WMP Activity Verification	7.3.3.17.1 - WMP.475	Traditional hardening distribution overhead system hardening	Activity Completed	Compliant with the 2022 WMP
WMP Activity Verification	7.3.3.17.1 - WMP.475	Traditional hardening distribution overhead system hardening	Activity Completed	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.3.17.1 - WMP.475	Traditional hardening distribution overhead system hardening	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.3.17.1 - WMP.475	Traditional hardening distribution overhead system hardening	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.3.17.18.1 - WMP.549	Distribution Communications Reliability Improvements (LTE)	Activity In Progress	Not Compliant with the 2022 WMP
WMP Activity Verification	7.3.3.17.18.1 - WMP.549	Distribution Communications Reliability Improvements (LTE)	Activity In Progress	Not Compliant with the 2022 WMP

Verification of QA/QC Programs	7.3.3.17.18.1 - WMP.549	Distribution Communications Reliability Improvements (LTE)	Activity Validated	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.3.17.18.2 - WMP.550	Lightning arrestor removal and replacement	Activity Validated	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.3.17.18.3 - WMP.972	Avian Mitigation	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.3.17.2 - WMP.543	Overhead transmission fire hardening	O&M Overspend Capital Overspend	
Verification of Funding	7.3.3.17.2 - WMP.544	Underground transmission fire hardening (Transmission)	O&M Overspend Capital Overspend	
Verification of Funding	7.3.3.17.2 - WMP.545	Overhead transmission fire hardening (Distribution Underbuilt)	O&M Overspend Capital Underspend: Variance Amount $1M - $5M	SDG&E did not spend $1.04M of the planned $4.27M, 24% of the total Capital amount initially allocated for this initiative. The decreased expenditure is due to delays in construction and only partial completion of the targeted miles.
WMP Activity Verification	7.3.3.17.2.1 - WMP.543	Overhead transmission fire hardening (Transmission)	Activity Completed	Compliant with the 2022 WMP
WMP Activity Verification	7.3.3.17.2.1 - WMP.543	Overhead transmission fire hardening (Transmission)	Activity Completed	Compliant with the 2022 WMP

Verification of QA/QC Programs	7.3.3.17.2.1 - WMP.543	Overhead transmission fire hardening (Transmission)	Activity Validated	Compliant with the 2022 WMP
WMP Activity Verification	7.3.3.17.2.2 - WMP.544	Underground transmission fire hardening (Transmission)	Activity Completed	Compliant with the 2022 WMP
WMP Activity Verification	7.3.3.17.2.2 - WMP.544	Underground transmission fire hardening (Transmission)	Activity Completed	Compliant with the 2022 WMP
WMP Activity Verification	7.3.3.17.2.3 - WMP.545	Overhead transmission fire hardening (Distribution Underbuilt)	Activity In Progress	Not Compliant with the 2022 WMP
WMP Activity Verification	7.3.3.17.2.3 - WMP.545	Overhead transmission fire hardening (Distribution Underbuilt)	Activity In Progress	Not Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.3.17.2.3 - WMP.545	Overhead transmission fire hardening (Distribution Underbuilt)	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.3.17.3 - N/A	CNF MSUP Powerline Replacement Program (Transmission)	O&M Overspend Capital Overspend	
Verification of Funding	7.3.3.17.3 - N/A	CNF (Distributon Underground)	O&M Overspend Capital Overspend	
Verification of Funding	7.3.3.17.3 - N/A	CNF(Distribution Overhead)	O&M Overspend Capital Overspend	

Verification of Funding	7.3.3.18.1 - WMP.549	Distribution Communications Reliability Improvements (LTE)	O&M Overspend Capital Underspend: Variance Amount $20M - $50M	SDG&E did not spend $25.46M of the planned $70.64M, 36% of the total Capital amount initially allocated for this initiative. The reduction in Capital expenditure is due to not receiving Spectrum License purchase resulting from Federal Communications Commission (FCC) delays. The unplanned O&M spend is due to unforeseen costs associated with software licensing and rent reclass at multiple sites.
WMP Activity Verification	7.3.3.18.2 - WMP.550	Lightning arrestor removal and replacement	Activity Field Verified. 281 Field Samples	Goal met/ exceeded 5/2,710 or (0.18%) Work Not Completed at Time of Field Visit. 4 Locations were found 80 to 220-feet from Provided Coordinates
Verification of Funding	7.3.3.18.2 - WMP.550	Lightning arrestor removal and replacement	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.3.18.3 - WMP.972	Avian Mitigation	Activity Field Verified. 141 Field Samples	Goal met/ exceeded 2/973 or (0.21%) Work Not Completed at Time of Field Visit. 9/973 or (0.92%) Avian Protection Missing or Slid Down the Line at Time of Field Visit. 2 Locations were found 95 to 105-feet from Provided Coordinates

Verification of Funding	7.3.3.18.3 - WMP.972	Avian Mitigation	O&M Overspend Capital Underspend: Variance Amount $1M - $5M	SDG&E did not spend $1.23M of the planned $3.08M, 40% of the total Capital amount initially allocated for this initiative. The reduced Capital spend is due to a reduction in forecasted units to be completed for 2023 which led to decreased design and engineering costs in 2022. Minor unplanned O&M expenditures arose during the work performed in 2022.
WMP Activity Verification	7.3.3.3 - WMP.455	Covered conductor installation	Activity Completed	Compliant with the 2022 WMP
WMP Activity Verification	7.3.3.3 - WMP.455	Covered conductor installation	Activity Completed	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.3.3 - WMP.455	Covered conductor installation	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.3.3 - WMP.455	Covered conductor installation	O&M Overspend Capital Underspend: Variance Amount $20M - $50M	SDG&E did not spend $35.13M of the planned $124.64M, 28% of the total Capital amount initially allocated for this initiative. The underspend of capital was due to completing work more efficiently that originally forecasted. SDG&E was able to complete 100% of the target work while spending less than originally forecasted. The overspend in O&M was due to improved identification of O&M costs in the source system since the initial spend was projected.
WMP Activity Verification	7.3.3.6 - WMP.458	Distribution pole replacement and	Activity Ongoing	Compliant with the 2022 WMP

		reinforcement, including with composite poles		
Verification of QA/QC Programs	7.3.3.6 - WMP.458	Distribution pole replacement and reinforcement, including with composite poles	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.3.6 - WMP.458	Distribution pole replacement and reinforcement, including with composite poles	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.3.7 - WMP.459	Expulsion fuse replacement	Activity Field Verified. 84 Field Samples	Goal met/ exceeded 1 Structure was found 153-feet from Provided Coordinates
Verification of Funding	7.3.3.7 - WMP.459	Expulsion fuse replacement	O&M Overspend Capital Underspend: Variance Amount $0M - $1M	SDG&E did not spend $102.6K of the planned $0.73M, 14% of the total Capital amount initially allocated for this initiative.
Verification of QA/QC Programs	7.3.3.7 - WMP.459	WMP.459 - Expulsion fuse replacement	Activity Validated	Compliant with the 2022 WMP
WMP Activity Verification	7.3.3.8.1 - WMP.461	PSPS sectionalizing enhancements	Activity Completed	Compliant with the 2022 WMP
WMP Activity Verification	7.3.3.8.1 - WMP.461	PSPS sectionalizing enhancements	Activity Completed	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.3.8.1 - WMP.461	PSPS sectionalizing enhancements	Activity Validated	Compliant with the 2022 WMP

Verification of Funding	7.3.3.8.1 - WMP.461	PSPS sectionalizing enhancements	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.3.8.2 - WMP.462	Microgrids	Activity In Progress	Not Compliant with the 2022 WMP
WMP Activity Verification	7.3.3.8.2 - WMP.462	Microgrids	Activity In Progress	Not Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.3.8.2 - WMP.462	Microgrids	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.3.8.2 - WMP.462	Microgrids	O&M Underspend: Variance Amount $0M - $1M Capital Underspend: Variance Amount $10M - $20M	SDG&E did not spend $303.3K of the planned $1.61M, 19% of the total O&M amount initially allocated for this initiative. Delays have shifted spend from 2022 into 2023. SDG&E did not spend $10.61M of the planned $13.31M, 80% of the total Capital amount initially allocated for this initiative. Delays have shifted spend from 2022 into 2023.
WMP Activity Verification	7.3.3.9 - WMP.463	Installation of system automation equipment	Activity In Progress	Not Compliant with the 2022 WMP
WMP Activity Verification	7.3.3.9 - WMP.463	Installation of system automation equipment	Activity In Progress	Not Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.3.9 - WMP.463	Installation of system automation equipment	Activity Validated	Compliant with the 2022 WMP

Verification of Funding	7.3.3.9 - WMP.463	Installation of system automation equipment	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.4.1 - WMP.478	Detailed inspections of distribution electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.4.1 - WMP.478	7.3.4.1 - WMP.478 - Detailed inspections of distribution electric lines and equipment	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.4.1 - WMP.478	Detailed inspections of distribution electric lines and equipment	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.4.10.1 - WMP.554	Drone assessment of transmission	Activity Completed	Compliant with the 2022 WMP
Verification of Funding	7.3.4.10.1 - WMP.554	Drone Assessments of transmission Infrastructure	O&M Overspend Capital Overspend	
Verification of QA/QC Programs	7.3.4.10.1 - WMP.554	Drone assessment of transmission	Activity Validated	Compliant with the 2022 WMP
WMP Activity Verification	7.3.4.10.2 - WMP.555	Additional Transmission Aerial 69kV Tier 3 Visual Inspection	Unable to Validate	Unable to Validate
Verification of QA/QC Programs	7.3.4.10.2 - WMP.555	Additional Transmission Aerial 69kV Tier 3 Visual Inspection	Activity Validated	Compliant with the 2022 WMP

Verification of Funding	7.3.4.10.2 - WMP.555	Additional Transmission Aerial 69kV Tier 3 Visual Inspection	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.4.11 - WMP.488	Patrol inspections of distribution electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.4.11 - WMP.488	Patrol inspections of distribution electric lines and equipment	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.4.11 - WMP.488	Patrol inspections of distribution electric lines and equipment	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.4.12 - WMP.489	Patrol inspections of transmission electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
Verification of Funding	7.3.4.12 - WMP.489	Patrol inspections of transmission electric lines and equipment	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.4.14 - WMP.491	Quality assurance / quality control of inspections	Activity Validated	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.4.14 - WMP.491	Quality assurance / quality control of inspections	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.4.14 - WMP.491	Quality assurance / quality control of inspections	O&M Overspend Capital Overspend	

WMP Activity Verification	7.3.4.15 - WMP.492	Substation inspections	Activity Completed	Compliant with the 2022 WMP
Verification of Funding	7.3.4.15 - WMP.492	Substation inspections	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.4.2 - WMP.479	Detailed inspections of transmission electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.4.2 - WMP.479	Detailed inspections of transmission electric lines and equipment	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.4.2 - WMP.479	Detailed inspections of transmission electric lines and equipment	O&M Overspend Capital Underspend: Variance Amount $0M - $1M	SDG&E did not spend $86.3K of the planned $0.58M, 15% of the total Capital amount initially allocated for this initiative.
WMP Activity Verification	7.3.4.4 - WMP.481	Infrared inspections of distribution electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
Verification of Funding	7.3.4.4 - WMP.481	Infrared inspections of distribution electric lines and equipment	O&M Underspend: Variance Amount $0M - $1M Capital Overspend	SDG&E did not spend $15.6K of the planned $0.17M, 9% of the total O&M amount initially allocated for this initiative.

WMP Activity Verification	7.3.4.5 - WMP.482	Infrared inspections of transmission electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
Verification of Funding	7.3.4.5 - WMP.482	Infrared inspections of transmission electric lines and equipment	O&M Overspend Capital Overspend	
Verification of QA/QC Programs	7.3.4.5 - WMP.482	Infrared inspections of transmission electric lines and equipment	Activity Validated	Compliant with the 2022 WMP
WMP Activity Verification	7.3.4.6 - WMP.483	Intrusive pole inspections	Activity Completed	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.4.6 - WMP.483	Intrusive pole inspections	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.4.6 - WMP.483	Intrusive Pole Inspections	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.4.7 - WMP.484	LiDAR inspections of distribution electric lines and equipment	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.4.7 - WMP.484	LiDAR inspections of distribution electric lines and equipment	O&M Overspend Capital Overspend	
Verification of QA/QC Programs	7.3.4.7 - WMP.484	LiDAR inspections of distribution electric lines and equipment	Activity Validated	Compliant with the 2022 WMP

WMP Activity Verification	7.3.4.8 - WMP.485	LiDAR inspections of transmission electric lines and equipment	Activity Ongoing	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.4.8 - WMP.485	LiDAR inspections of transmission electric lines and equipment	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.4.8 - WMP.485	LiDAR inspections of transmission electric lines and equipment	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.4.9.1 - WMP.551	HFTD Tier 3 distribution pole inspections	Activity Completed	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.4.9.1 - WMP.551	HFTD Tier 3 distribution pole inspections	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.4.9.1 - WMP.551	HFTD Tier 3 distribution pole inspections	O&M Underspend: Variance Amount $0M - $1M Capital Overspend	SDG&E did not spend $41.7K of the planned $0.38M, 11% of the total O&M amount initially allocated for this initiative.
WMP Activity Verification	7.3.4.9.2 - WMP.552	Drone assessments of distribution infrastructure	Activity Completed	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.4.9.2 - WMP.552	Drone assessments of distribution infrastructure	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.4.9.2 - WMP.552	Drone assessments of distribution infrastructure	O&M Underspend: Variance Amount	SDG&E did not spend $6.78M of the planned $52M, 13% of the total O&M amount initially allocated for this initiative.

			$5M - $10M Capital Overspend	
WMP Activity Verification	7.3.5.1 - WMP.493	Additional efforts to manage community and environmental impacts	Activity Ongoing	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.5.1 - WMP.493	Additional efforts to manage community and environmental impacts	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.5.1 - WMP.493	Additional efforts to manage community and environmental impacts	O&M Underspend: Variance Amount $0M - $1M Capital Overspend	SDG&E did not spend $127.8K of the planned $1M, 13% of the total O&M amount initially allocated for this initiative.
WMP Activity Verification	7.3.5.13 - WMP.505	Quality assurance / quality control of vegetation inspections	Activity Completed	Compliant with the 2022 WMP
Verification of Funding	7.3.5.13 - WMP.505	Quality assurance / quality control of vegetation inspections	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.5.14 - WMP.506	Recruiting and training of vegetation management personnel	Activity In Progress	Compliant with the 2022 WMP
Verification of Funding	7.3.5.14 - WMP.506	Recruiting and training vegetation management personnel	O&M Overspend	

			Capital Overspend	
WMP Activity Verification	7.3.5.15 - WMP.507	Remediation of at-risk species	Activity In Progress	Compliant with the 2022 WMP
Verification of Funding	7.3.5.15 - WMP.507	Remediation of at-risk species	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.5.16 - WMP.508	Removal and remediation of trees with strike potential to electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
Verification of Funding	7.3.5.16 - WMP.508	Removal and remediation of trees with strike potential to electric lines and equipment	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.5.19 - WMP.511	Vegetation inventory system	Activity In Progress	Compliant with the 2022 WMP
Verification of Funding	7.3.5.19 - WMP.511	Vegetation inventory system	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.5.2 - WMP.494	Detailed inspections of vegetation around distribution electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.5.2 - WMP.494	Detailed inspections of vegetation around distribution electric lines and equipment	Activity Validated	Compliant with the 2022 WMP

Verification of Funding	7.3.5.2 - WMP.494	Detailed inspections of vegetation around distribution electric lines and equipment	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.5.20 - WMP.512	Vegetation management to achieve clearances around electric lines and equipment	Activity Completed	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.5.20 - WMP.512	7.3.5.20 - WMP.512 - Vegetation management to achieve clearances around electric lines and equipment	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.5.20 - WMP.512	Vegetation management to achieve clearances around electric lines and equipment	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.5.5 - WMP.497	Fuel management and reduction of “slash” from vegetation management activities	Activity Completed	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.5.5 - WMP.497	Fuel management and reduction of “slash” from vegetation management activities	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.5.5 - WMP.497	Fuel management and reduction of “slash” from vegetation management activities	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.5.7 - WMP.499	LiDAR inspections of vegetation around	Activity Completed	Compliant with the 2022 WMP

		distribution electric lines and equipment		
Verification of QA/QC Programs	7.3.5.7 - WMP.499	LiDAR inspections of vegetation around distribution electric lines and equipment	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.5.7 - WMP.499	LiDAR inspections of vegetation around distribution electric lines and equipment	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.5.9 - WMP.501	Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations	Activity in Progress	Not Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.5.9 - WMP.501	Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.5.9 - WMP.501	Other discretionary inspection of distribution electric lines and equipment, beyond inspections mandated by rules and regulations	O&M Overspend Capital Overspend	
Verification of Funding	7.3.6.3 - WMP.514	Crew-accompanying ignition prevention and suppression resources and services	O&M Underspend: Variance Amount	SDG&E did not spend $155.7K of the planned $3.23M, -5% of the total O&M amount initially allocated for this initiative.

			$0M - $1M Capital Overspend	
WMP Activity Verification	7.3.6.3 – WMP.514	Crew-accompanying ignition prevention and suppression resources and services	Activity Ongoing	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.6.4 - WMP.515	Personnel work procedures and training in conditions of elevated fire risk	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.6.4 - WMP.515	Personnel work procedures and training in conditions of elevated fire risk	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.6.4 – WMP.515	Personnel work procedures and training in conditions of elevated fire risk	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.6.5 - WMP.516	Protocols for PSPS re-energization	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.6.5 – WMP.516	Protocols for PSPS re-energization	Activity Ongoing	Compliant with the 2022 WMP
Verification of Funding	7.3.6.6 - WMP.517	PSPS events and mitigation of PSPS impacts	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.6.6 – WMP.517	PSPS events and mitigation of PSPS impacts	Activity Ongoing	Compliant with the 2022 WMP

Verification of Funding	7.3.6.7.1 - WMP.557	Aviation Firefighting Program	O&M Underspend: Variance Amount $1M - $5M Capital Underspend: Variance Amount $10M - $20M	SDG&E did not spend $1.93M of the planned $9.32M, 21% of the total O&M amount initially allocated for this initiative. O&M decreased expenditure is due primarily to fewer flight hours than expected. SDG&E did not spend $12.24M of the planned $23.67M, 52% of the total Capital amount initially allocated for this initiative. The underspend in Capital is due to delays in obtaining FAA approval of materials and kits.
WMP Activity Verification	7.3.6.7.1 – WMP.557	Aviation firefighting program	Activity Ongoing	Compliant with the 2022 WMP
Verification of Funding	7.3.7.1 - WMP.519	Centralized repository for data	O&M Underspend: Variance Amount $0M - $1M Capital Underspend: Variance Amount $10M - $20M	SDG&E did not spend $185.3K of the planned $1.49M, 12% of the total O&M amount initially allocated for this initiative. SDG&E did not spend $11.98M of the planned $26.98M, 40% of the total Capital amount initially allocated for this initiative. The Capital expenditure decreased due to more accurate allocation of costs for the Enterprise Asset Management Platform (now known as Asset 360), delayed go-live date for Investment Prioritization (now known as Investment Prioritization & Optimization), and a reduction of scope (WMP advanced analytics).

WMP Activity Verification	7.3.7.1 – WMP.519	Centralized repository for data	Activity In Progress	Compliant with the 2022 WMP
Verification of Funding	7.3.7.2 - WMP.520	Collaborative research on utility ignition and/or wildfire	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.7.2 – WMP.520	Collaborative research on utility ignition and/or wildfire	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.7.3 - N/A	Documentation and disclosure of wildfire-related data and algorithms	O&M Overspend Capital Underspend: Variance Amount $0M - $1M	SDG&E did not spend $312.3K of the planned $3.99M, 8% of the total Capital amount initially allocated for this initiative.
Verification of QA/QC Programs	7.3.7.4.1 - WMP.558	Ignition management program	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.7.4.1 - WMP.558	Ignition management program	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.7.4.1 – WMP.558	Ignition management program	Activity In Progress	Compliant with the 2022 WMP
Verification of Funding	7.3.7.4.2 - WMP.559	Reliability database	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.7.4.2 – WMP.559	Reliability database	Activity Validated	Compliant with the 2022 WMP

Verification of QA/QC Programs	7.3.7.4.2 - WMP.559	Reliability database	Activity Validated	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.8.1 - WMP.523	Allocation methodology development and application	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.8.1 - WMP.523	Allocation methodology development and application	O&M Underspend: Variance Amount $0M - $1M Capital Overspend	SDG&E did not spend $819.3K of the planned $4.79M, 17% of the total O&M amount initially allocated for this initiative.
WMP Activity Verification	7.3.8.1 – WMP.523	Allocation methodology development and application	Activity Ongoing	Compliant with the 2022 WMP
Verification of Funding	7.3.8.3 - WMP.523	Risk spend efficiency analysis - not include PSPS	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.9.1 - WMP.526	Adequate and trained workforce for service restoration	Activity Ongoing	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.3.9.1 - WMP.526	7.3.9.1 - WMP.526 - Adequate and trained workforce for service restoration	Activity Validated	Compliant with the 2022 WMP
Verification of Funding	7.3.9.1 - WMP.526	Adequate and trained workforce for service restoration	O&M Overspend	

			Capital Overspend	
WMP Activity Verification	7.3.9.2 - WMP.527	Community outreach, public awareness, and communications efforts	Activity Ongoing	Compliant with the 2022 WMP
Verification of Funding	7.3.9.2 - WMP.527	Community outreach, public awareness, and communications efforts	O&M Underspend: Variance Amount $1M - $5M Capital Underspend: Variance Amount $5M - $10M	SDG&E did not spend $2.79M of the planned $15.17M, 18% of the total O&M amount initially allocated for this initiative. SDG&E did not spend $6.08M of the planned $8.85M, 69% of the total Capital amount initially allocated for this initiative. The underspend in Capital is due to delayed project starts for enhancing the Emergency Notification System (ENS). SDG&E is exploring additional platforms that can assist with accessible communications and is engaged with stakeholders and subject matter experts. This is an ongoing effort with expected project start in 2023.
WMP Activity Verification	7.3.9.3 - WMP.1007	Customer support in emergencies	Activity Ongoing	Compliant with the 2022 WMP
Verification of Funding	7.3.9.3 - WMP.1007	Customer support in emergencies	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.9.4 - WMP.1008	Disaster and emergency preparedness plan	Activity Ongoing	Compliant with the 2022 WMP
Verification of Funding	7.3.9.4 - WMP.1008	Disaster and emergency preparedness plan	O&M Overspend	

			Capital Overspend	
WMP Activity Verification	7.3.9.5 - WMP.1009	Preparedness and planning for service restoration	Activity Ongoing	Compliant with the 2022 WMP
Verification of Funding	7.3.9.5 - WMP.1009	Preparedness and planning for service restoration	O&M Overspend Capital Overspend	
WMP Activity Verification	7.3.9.6 - WMP.1010	Protocols in place to learn from wildfire events	Activity Ongoing	Compliant with the 2022 WMP
Verification of Funding	7.3.9.6 - WMP.1010	Protocols in place to learn from wildfire events	O&M Overspend Capital Overspend	
Verification of QA/QC Programs	7.3.9.6 - WMP.1010	Protocols in place to learn from wildfire events	Activity Validated	Compliant with the 2022 WMP
Verification of QA/QC Programs	7.5.3.16 - WMP.508	7.5.3.16 - WMP.508 - Removal and remediation of trees with strike potential to electric lines and equipment	Activity Validated	Compliant with the 2022 WMP