



Wildfire Mitigation Plan Independent Evaluation

Prepared for:

Port of Oakland



Submitted by:
Navigant, A Guidehouse Company
35 Iron Point Circle
Suite #225
Folsom, CA 95630

guidehouse.com

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DISCLAIMER

This report was prepared by Navigant Consulting, Inc., n/k/a Guidehouse Inc. (“Navigant”),¹ for the Port of Oakland. The work presented in this report represents Navigant’s professional judgment based on the information available at the time this report was prepared. Navigant is not responsible for the reader’s use of, or reliance upon, the report, nor any decisions based on the report. **NAVIGANT MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED.** Readers of the report are advised that they assume all liabilities incurred by them, or third parties, as a result of their reliance on the report, or the data, information, findings and opinions contained in the report.

¹ On October 11, 2019, Guidehouse LLP completed its previously announced acquisition of Navigant Consulting Inc. In the months ahead, we will be working to integrate the Guidehouse and Navigant businesses. In furtherance of that effort, we recently renamed Navigant Consulting Inc. as Guidehouse Inc.

EXECUTIVE SUMMARY

The Port of Oakland, Port Utilities (“Port”) contracted with Navigant Consulting, Inc. n/k/a Guidehouse Inc. (Navigant) to engage in an independent evaluation of its Wildfire Mitigation Plan (“Plan” or WMP). This independent evaluation report (Report) describes the technical review and evaluation provided by Navigant. Navigant’s project team reviewed detailed information related to the Plan and assessed the Port’s procedures related to the Plan.

The Plan was prepared as a response to Senate Bill (SB) 901, which was signed into law on September 21, 2018. SB 901 resulted in a number of provisions and directives, among which includes the requirement for electric utilities to prepare and adopt Plans within 2019 and revise and update the Plan annually thereafter. These requirements are codified in the California Public Utilities Code (PUC) Section 8387 for publicly owned utilities (POUs).

Navigant evaluated the Plan based on the statutory requirements of PUC Section 8387 as it relates to POUs. This PUC Section was amended on July 12, 2019 as a result of the signing of California’s Assembly Bill (AB) 1054 into law. The POUs are now subject to the guidance provided by the California Wildfire Safety Advisory Board² and mandatory cyclical reviews. The required elements for a WMP have not been modified by this new legislation. This Report meets the requirements of PUC Section 8387(c), which mandate an independent evaluation of the Port’s Plan. The Report was developed to satisfy the statutory requirement for public review. This Report underlies the required evaluation by the Board of Directors at a public meeting, scheduled for June 11, 2020. The Report includes the following:

- Background of the legislative history requiring WMPs and their independent evaluations
- Approach and methodology evaluating the Plan’s comprehensiveness
- The Port of Oakland’s Plan elements and their compliance with SB 901 and PUC Section 8387 WMP elements and directives
- An evaluation of the Plan’s presented metrics to assess the effectiveness of the overall Plan
- Determinations and results

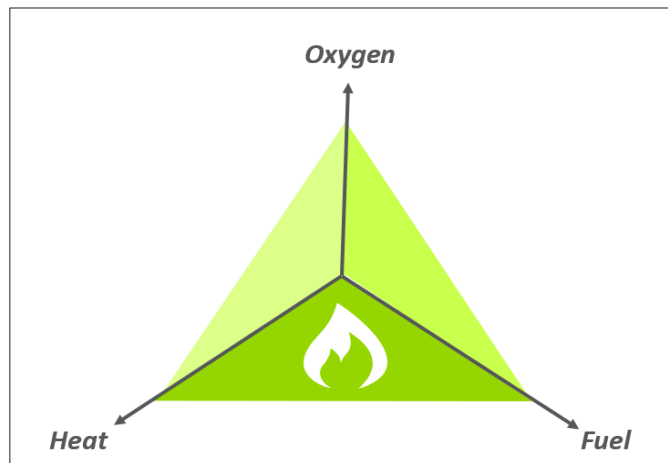
Based on relevant experience in grid hardening and resiliency, natural disaster response, prior experience in WMP development and assessments, and active tracking of wildfire legislative and regulatory proceedings, as well as the relatively low risk of the Port’s facilities causing a wildfire, Navigant concludes that the Port’s WMP is comprehensive in accordance with PUC section 8387.

² Due for implementation in 2020.

1. BACKGROUND

In recent years, California has seen an increase in utility equipment-involved, catastrophic wildfires. The unique geographic profile of California and the impacts of climate change, including continued dry conditions, high winds, and elevated heat index risk from global rising temperatures, have led to elongated fire seasons. The state is also experiencing increased levels of vegetation fuel due to the wet winters, hotter summers following a seven-year drought, and past fire suppression efforts. This increasingly abundant dry vegetation is the leading driver of wildfires. The levels of dry vegetation fuel have been aggravated by a destructive bark beetle infestation that continues to impact the health of the state's forested areas, further increasing fire risk. These fuel-rich environments, coupled with intensified climatological conditions with high wind gusts and natural electrical infrastructure risks, produce the conditions conducive to potential wildfire ignition. The three attributes that provide optimal conditions for a fire ignition are illustrated through the graphic in Figure 1.

Figure 1: Fire Triangle



Disastrous wildfire threat is a well-known and shared priority among electric utilities in California. The recent spike in utility-involved wildfire incidents since the 2015 wildfire season and the significant financial and livelihood impacts associated with them have led to more formalized efforts to ensure safe operations of electric utility equipment and greater investment in wildfire mitigation efforts.³ Specifically, the state has approved legislation that strengthens governmental and regulatory oversight of wildfire prevention implementation activities, utility Wildfire Mitigation Plans (WMPs or Plans), and proper dispersal of state funds to wildfire victims. In an effort to minimize future devastating occurrences through risk-driven wildfire prevention, electric utilities, including cooperatives, were mandated, by Senate Bill (SB) 901 (Senator Bill Dodd, 2018),

³ California Public Utilities Commission, 2019. "Fire Incident Data Reports for Investor-Owned Utilities," <https://www.cpuc.ca.gov/fireincidentsdata/>.

to prepare and annually adopt a WMP before January 1, 2020. This effort is foundational to the state's prioritized goal of minimizing the potential of devastating fires in future years.

1.1 SB 901 – Wildfire Mitigation Plans

On September 21, 2018, Governor Jerry Brown signed SB 901 into law. The bill directs electrical utilities to annually prepare WMPs that include several mitigation and response elements in each utility's strategies, protocols, and programs. Each electric utility is to prepare and adopt a comprehensive WMP before January 1, 2020. The requirements for publicly owned utilities (POUs) are presented in Public Utilities Code (PUC) Section 8387. Details relating to POU requirements are discussed in Section 2 of this WMP evaluation report (Report).

1.1.1 AB 1054 Statutory Modifications

On July 12, 2019, Governor Gavin Newsom signed Assembly Bill (AB) 1054 into law. This bill was developed with the consideration of the Governor's Strike Force effort to develop prioritized strategies to help the state achieve its decarbonization goals. AB 1054 aims to mitigate the intensity of wildfire impacts through several initiatives separate from those actions required of electric utilities. SB 901 directed the Office of Planning and Research to establish a Commission on Catastrophic Wildfire Cost Recovery (SB 901 Commission) with the goal of addressing utility wildfire liability, cost responsibility and victim support, and issues with insurance availability and affordability. On June 18, 2019, the SB 901 Commission presented to the state Legislature, findings and recommendations on the issues discussed at public workshops over the course of several months. This, in part with Governor Newsom's Wildfire Reform Package, resulted in legislation that culminated in the provisions listed in AB 1054.

AB 1054 includes directives to establish the Wildfire Safety Division at the California Public Utilities Commission (CPUC) and the state's Wildfire Safety Advisory Board. POUs will their WMPs by July 1 of each year starting in 2020 for review by and recommendations from the Wildfire Safety Advisory Board. No less than every three years, POUs are required to comprehensively update their WMPs. This change is included in this evaluation as a reference for future requirements.

1.1 Port of Oakland Wildfire Mitigation Plan Preparation

The Port Utilities ("Port") is a department within the Port of Oakland. The Port is an independent department of the City of Oakland, established through the City of Oakland (City) Charter in 1927. The Port is governed by and through the Board of Port Commissioners. The Port owns and operates the Oakland International Airport (OAK), owns and leases facilities in the Oakland Seaport, and owns and leases commercial real estate holdings located along the San Francisco Bay between the Seaport and OAK.

The Port is also a local publicly owned utility operating its own system of electrical lines, equipment, and other facilities to provide electric utility service to its own facilities and tenants at the Oakland International Airport, and its own facilities and a portion of its tenants of the Oakland Seaport area. The Port provides all electricity to the Oakland harbor in all areas except portions of Nutter, Matson, and Howard terminals. PG&E

provides all other service in the Seaport area. The Port does not provide electric utility service to the commercial real estate areas of the Port south of Jack London Square to the airport.

Power to the Seaport area is fed at 115kV and 12 kV from PG&E's Substations C and L. OAK is fed at 12kV from PG&E's Edes Substation. In both the Maritime and OAK areas, the Port owns and operates the substations, distribution, metering and other distribution infrastructure. At OAK power lines are undergrounded. At the Seaport, the Port has less than 3 miles of overhead lines (rated at 12 kV), located in a flat, paved area with very few adjacent (palm) trees that are maintained to provide the required clearances. All other areas of the Seaport have underground lines.

The City of Oakland Fire Department (OFD) is responsible for assisting the Port with containing and fighting fires in all areas of the Port. The Port contracts for dedicated response at the Airport and maintains Aircraft Rescue and Fire Fighting facilities on the airfield of the Airport. The Port has designated three Emergency Operations Centers (EOC), two located at OAK and one located at the Port's Administrative offices located at 530 Water Street. Depending on the nature of the emergency one or more EOCs may be activated that will work cooperatively with the City's EOC to handle a variety of emergencies including wildfires.

Port areas at both the Airport and the Seaport are primarily paved areas with limited vegetation and structures. The nature of the transportation infrastructure the Port provides for aviation and maritime use requires large flat paved surfaces. Vegetation is mostly limited to isolated plants, bioswales or bushes between paved areas or in wetlands. The Maritime area is virtually all paved or graded with the exception of two maintained parks. Non-paved areas at OAK consist primarily of several hundred acres of wetlands, waters of United States, and graded areas consistent with Federal Aviation Administration safety requirements. Adjacent land uses are dominated primarily by San Francisco Bay and urban developed communities of West and East Oakland, San Leandro, and Alameda. Significant trees are specifically prohibited and managed in the vicinity of OAK due to FAA safety requirements.

The design of the Airport and Seaport utility infrastructure, extensive paved areas, lack of vegetation and wetlands/ponds, and maintenance regimes serve as significant mitigations against the possibility of wildfires resulting from the Port electric utility infrastructure.

The Port prepared its first WMP pursuant to SB 901 directives in October 2019 and presented it to the Port of Oakland Board of Port Commissioners on December 30, 2019. The Plan aims to address each of the required elements presented by PUC Section 8387 and ultimately reduce the risk of contributing to utility-involved wildfire events through Plan execution and metric tracking. The Port posted its initial Plan to its website for public review. The Port intends to treat its WMP as a living document that will be amended from time to time. The next version of the Plan is proposed to be approved April 9, 2020; this review is based upon that version of the Plan.

1.1.1 Independent Evaluation Services

PUC Section 8387(c) directs POUs to procure services for an independent evaluation (IE) of the comprehensiveness of the WMP. In 2020, upon commencement of the California Wildfire Safety Advisory Board, guidelines and further details related to the scope and timelines of future IEs will

be discussed and reviewed. In its present form, the provisions of PUC Section 8387 state that the independent evaluator shall be experienced in “assessing the safe operation of electrical infrastructure” and will perform an assessment to determine the comprehensiveness of the Plan.⁴

The Port sought out IE services to assess the comprehensiveness of its WMP pursuant to PUC Section 8387(c) prior to presenting the final WMP to City Council and contracted Navigant Consulting, Inc., n/k/a Guidehouse Inc. (Navigant) in February of 2020 to undertake an assessment of its Plan based on Navigant’s prior experience with assessing the safe operation of electrical infrastructure, including grid-hardening and WMPs, with an emphasis on electrical equipment, public, and personnel safety.

Emergent practices will materialize as evolving legislative action and technology advances continue to shape wildfire mitigation and safety efforts. Understanding this, Navigant performed a comparison of the wildfire mitigation investments undertaken by other utilities throughout California as well as relied on the team’s experience in working directly with utilities to develop their WMPs and data collection practices along with prior experience related to grid hardening and electric safety assessments. This Report presents the results of Navigant’s WMP IE. The following section describes the methodology in executing this evaluation.

Navigant Identification of Qualifications

Navigant provides IE services throughout the United States. Navigant’s grid-related IE projects include storm hardening, wildfire mitigation, resiliency assessments, advanced technology suitability, among others. Our approach includes an evaluation of data considered, suitability of tracking metrics – both frequency and trends analysis - and an evaluation of key performance indicators. Navigant assesses the efficacy of tools for creating sufficient awareness and for effectiveness of understanding overall WMP’s intended and actual impacts. Navigant also leverages experience developing “Metrics and Benefits Reporting Plans” to gauge cost-effectiveness of activities and alignment of plans to intentions. Navigant understands the Port’s publicly owned business practices relative to IOUs, through our experience developing and evaluating WMPs for IOUs and POU and our continued tracking of related CPUC dockets intended to refine strategies that carry an effective Plan.

Navigant continues to track proceedings, pending legislation, and other developments surrounding utility wildfire risk. Our team remains active with WMP engagements across jurisdictions and risk profiles. As part of maintaining high acumen of prudent mitigation strategies, Navigant participates in forums focused on innovative wildfire mitigation strategies—further expanding our industry knowledge. Navigant provides thought leadership and advisory services related to WMP and other resiliency innovative technologies to the California Energy Commission and has supported their system hardening and fire prevention efforts since 2008. Additionally, Navigant’s reach into grid resiliency and disaster-related hardening extends across the United States including island grids, such as Puerto Rico, recovering from recent, weather-related catastrophes. Evaluation Scope and Approach

At the time of this IE, the guidelines and requirements were not available to POU regarding the structure or determination of comprehensiveness pursuant to PUC Section 8387(c). In lieu of this formalized directive, Navigant completed this evaluation based on industry standard practices, our experience developing and reviewing WMPs and other grid hardening activities, our active tracking of wildfire legislative and regulatory

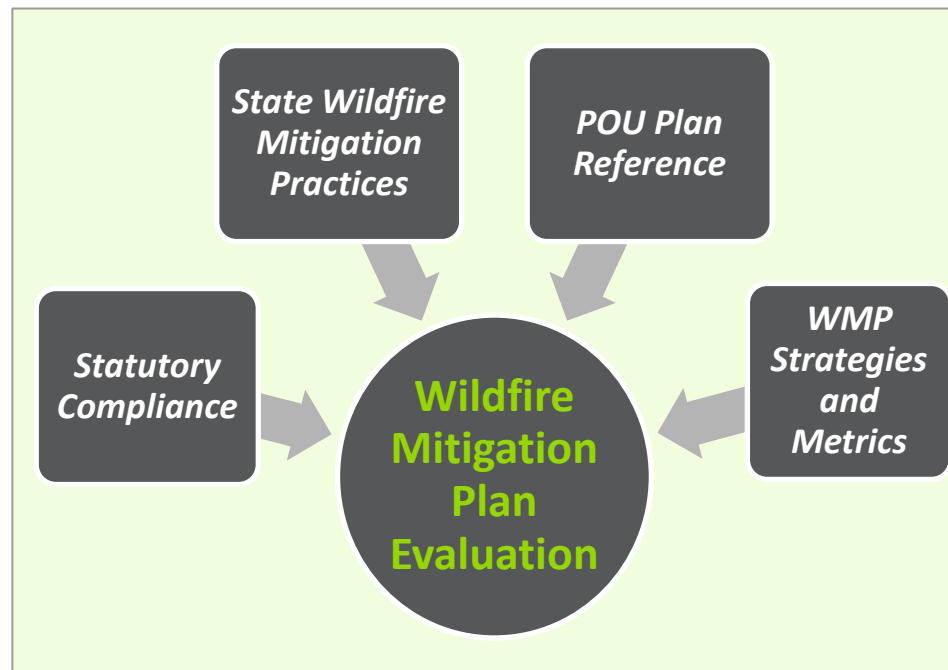
⁴ It is recognized that this requirement does not yet include a clear definition of comprehensiveness.

proceedings and, most importantly, a comparison of the specific criteria in PUC Section 8387(b)(2) to the specific wildfire-related plans outlined in the Port's WMP.

1.2 Evaluation Parameters

Figure 2 represents the attributes comprising the methodology and approach of the evaluation.

Figure 2: Contributing Factors to Evaluate the Plan



1.2.1 Provisional Requirements

As mentioned above, the requirement for electric utilities and corporations to develop WMPs emerged from the directives of SB 901 and associated statutory modifications. With respect to POUs, the nested subsections under PUC Section 8387(b)(2) outline the required elements to be included in the Plan. See Table 1 for the complete statutory compliance list.

Table 1: POU Requirements for the WMP

PUC Section 8387 <i>(as amended on July 12, 2019)</i>
<p>(a) Each local publicly owned electric utility and electrical cooperative shall construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of wildfire posed by those electrical lines and equipment.</p>
<p>(b) (1) The local publicly owned electric utility or electrical cooperative shall, before January 1, 2020, prepare a wildfire mitigation plan. After January 1, 2020, a local publicly owned electric utility or electrical cooperative shall prepare a wildfire mitigation plan annually and shall submit the plan to the California Wildfire Safety Advisory Board on or before July 1 of that calendar year. Each local publicly owned electric utility and electrical cooperative shall update its plan annually and submit the update to the California Wildfire Safety Advisory Board by July 1 of each year. At least once every three years, the submission shall be a comprehensive revision of the plan.</p>
<p>(2) The wildfire mitigation plan shall consider as necessary, at minimum, all of the following:</p>
<p>(A) An accounting of the responsibilities of persons responsible for executing the plan.</p>
<p>(B) The objectives of the wildfire mitigation plan.</p>
<p>(C) A description of the preventive strategies and programs to be adopted by the local publicly owned electric utility or electrical cooperative to minimize the risk of its electrical lines and equipment causing catastrophic wildfires, including consideration of dynamic climate change risks.</p>
<p>(D) A description of the metrics the local publicly owned electric utility or electrical cooperative plans to use to evaluate the wildfire mitigation plan's performance and the assumptions that underlie the use of those metrics.</p>
<p>(E) A discussion of how the application of previously identified metrics to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.</p>
<p>(F) Protocols for disabling reclosers and deenergizing portions of the electrical distribution system that consider the associated impacts on public safety, as well as protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure.</p>

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(G) Appropriate and feasible procedures for notifying a customer who may be impacted by the deenergizing of electrical lines. The procedures shall consider the need to notify, as a priority, critical first responders, health care facilities, and operators of telecommunications infrastructure.

(H) Plans for vegetation management.

(I) Plans for inspections of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.

(J) A list that identifies, describes, and prioritizes all wildfire risks, and drivers for those risks, throughout the local publicly owned electric utility's or electrical cooperative's service territory. The list shall include, but not be limited to, both of the following:

(i) Risks and risk drivers associated with design, construction, operation, and maintenance of the local publicly owned electric utility's or electrical cooperative's equipment and facilities.

(ii) Particular risks and risk drivers associated with topographic and climatological risk factors throughout the different parts of the local publicly owned electric utility's or electrical cooperative's service territory.

(K) Identification of any geographic area in the local publicly owned electric utility's or electrical cooperative's service territory that is a higher wildfire threat than is identified in a commission fire threat map, and identification of where the commission should expand a high fire-threat district based on new information or changes to the environment.

(L) A methodology for identifying and presenting enterprise wide safety risk and wildfire-related risk.

(M) A statement of how the local publicly owned electric utility or electrical cooperative will restore service after a wildfire.

(N) A description of the processes and procedures the local publicly owned electric utility or electrical cooperative shall use to do all of the following:

(i) Monitor and audit the implementation of the wildfire mitigation plan.

(ii) Identify any deficiencies in the wildfire mitigation plan or its implementation and correct those deficiencies.

(iii) Monitor and audit the effectiveness of electrical line and equipment inspections, including inspections performed by contractors, that are carried out under the plan, other applicable statutes, or commission rules.

(3) The local publicly owned electric utility or electrical cooperative shall, on or before January 1, 2020, and not less than annually thereafter, present its wildfire mitigation plan in an appropriately noticed public meeting. The local publicly owned electric utility or electrical cooperative shall accept comments on its wildfire mitigation plan from the public, other local and state agencies, and interested parties, and shall verify that the wildfire mitigation plan complies with all applicable rules, regulations, and standards, as appropriate.

(c) The local publicly owned electric utility or electrical cooperative shall contract with a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of its wildfire mitigation plan. The independent evaluator shall issue a report that shall be made available on the internet website of the local publicly owned electric utility or electrical cooperative and shall present the report at a public meeting of the local publicly owned electric utility's or electrical cooperative's governing board.

1.2.2 Industry Knowledge and Regulatory Proceedings

The state's priority towards abating future catastrophic wildfire events is demonstrated through aggressive measures, directing utilities to enhance their protocols for fire prevention, public communications, and response. That collection of information is presented in a comprehensive WMP. Navigant has tracked docketed proceedings and maintains a presence in state activities and workshops surrounding wildfire prevention. Understanding that the Port is not subject to CPUC regulations, the insight gained from this related experience is leveraged in assessing the Port's Plan relative to its risk profile and industry position.

1.3 Evaluation Approach

To perform an assessment of the comprehensiveness of the Plan, Navigant used the following described approach.

1.3.1 Statutory Compliance

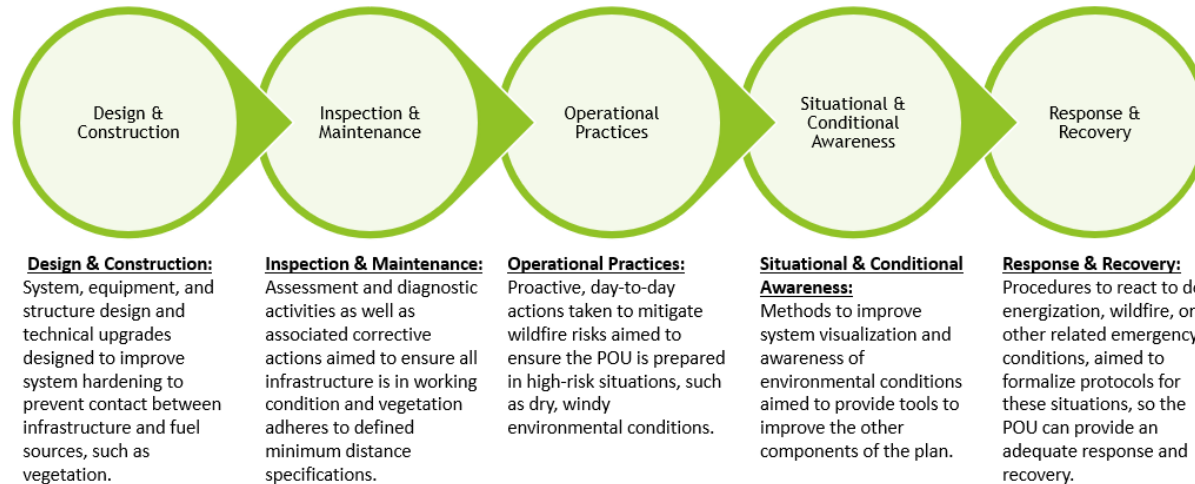
Navigant sought to determine compliance with the provisional requirements laid out in SB901 as codified in PUC Section 8387. The Plan's alignment with the statutory requirement is presented in Appendix A. The Port's mitigation measures are not required to exceed the statutory requirements.

1.3.2 Industry Wildfire Mitigation Practices Comparison

IOU wildfire mitigation plans approved by the CPUC have garnered significant insight from the industry at large. Additionally, POU plans have been posted since at least late 2019. Navigant's understanding of an effective Plan draws on comparisons from existing WMPs and industry practices and is typically summarized according to business practice categories described in Figure 3. Because the Port does not have any Tier 2 or Tier 3 High Fire Threat Districts within its service territory, Navigant did not undertake a best practices comparison. Collected industry best practices were, however, shared with the Port.

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Figure 3: Mitigation Strategy Overview



Navigant’s understanding of collected utility strategies demonstrated throughout the state are summarized below:

- **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, and conducting vegetation inspections and management, vulnerability detection such as Light Detection and Ranging (LiDAR) inspection; and geospatial and topography identification, geographic information system (GIS) mapping data. A key component is identifying collected data elements through each program and understand how that data is used and shared to improve utility practices.
- **Vegetation management** that includes routine preventative vegetation maintenance; corrective vegetation management and off-cycle tree work; emergency vegetation clearance, prioritized for portions of the service territory that lie in high hazard zones, quality control processes; and resource protection plan, including animal and avian mitigation programs.
- **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.
- **Operational practices** including communications and mustering plans under varying degrees of wildfire risk. Plans to deactivate automatic reclosers, de-energization of “at risk” area powerlines based on type of facility (overhead bare conductions, high voltage, etc.), tree and vegetation density, available dry fuel, and other factors that make certain locations vulnerable to wildfire risk.

- **Situational awareness** including obtaining information from devices and sensors on actual system, weather and other wildfire conductivity conditions, two-way communication with agencies and key personnel. Programs such as online feeds and websites such as the National Fire Danger Rating System. Situational awareness should help achieve a shared understanding of actual conditions and serve to improve collaborative planning and decision making.
- **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.
- **Advanced Technologies** including Distribution Fault Anticipation technology, tree growth regulators, pulse control fault interrupters, oblique and hyper-spectral imagery; advanced transformer fluids; advanced LiDAR, and advanced SCADA, to reduce electrical ignition while also helping to mitigate power outages and equipment damage.
- **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 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 Assistance should be leveraged. Community outreach plan should inform and engage first responders, local leaders, land managers, business owners and others.
- **Customer support programs** including financial assistance and support for low-income customers; billing adjustments; deposit waivers; extended payment plans; suspension of disconnection and non-payment fees; repair processing and timing; access to utility representatives; and access to outage reporting and emergency communications. Consideration of languages in addition to English. Identification of priority customers, such as first responders and local agencies, health care providers, water and telecommunication facilities, groups that assist children, elderly, mobility impaired, and other vulnerable populations.

1.3.3 Value Determination of Plan Metrics

Metrics for tracking the Plan's progress intend to allow the utility to refresh information as trends become clearer. Based upon the discussion included in the CPUC's Phase 2 of the SB 901 proceeding docket, interests in metric development and underlying data collection are beginning to take shape. While these determinations do not directly influence the public power sector, insight has been leveraged to employ effective metrics.⁵

⁵ CPUC Order Instituting Rulemaking to Implement Electric Utility Wildfire Mitigation Plans Pursuant to SB 901 (2018) (Rulemaking 18-10-007) https://apps.cpuc.ca.gov/apex/f?p=401:56:0::NO:RP,57,RIR:P5_PROCEEDING_SELECT:R1810007.

2. THE PORT WMP PLAN ELEMENTS

Navigant reviewed the Plan elements and determined whether the activities supported the intention to deploy an effective WMP. This determination incorporated individual elements as well as underlying data sources that further described data collection methodologies and implementation procedures to ensure measures are carried out and also tracked. This understanding also informs internal reviews and subsequent updates for future Plan iterations.

Navigant found that the Port's WMP meets the statutory requirements of comprehensiveness PUC Section 8387. In this section, we review the WMP's elements and their purpose relative to the development and successful execution of the WMP. A table comparing each subsection of PUC Section 8387 to the significant sections of the WMP can be found in Appendix A.

2.1 Objectives and Overview of Preventative Strategies and Programs

PUC Section 8387

(B) The objectives of the wildfire mitigation plan.

(C) A description of the preventative strategies and programs to be adopted by the local publicly owned electric utility or electrical cooperative to minimize the risk of its electrical lines and equipment causing catastrophic wildfires, including consideration of dynamic climate change risks.

The Port elaborates the Plan objectives on page three⁶ of the WMP. The Port set forth three objectives for their Plan:

1. Minimize the probability that Port of Oakland Transmission and Distribution system may be the origin or contributing source for the ignition of a wildfire
2. Implement a Wildfire Mitigation Plan that reflects that safety, prevention, mitigation, and recovery are central to the goals of the Port of Oakland
3. Ensure the Port of Oakland maintains a Wildfire Mitigation Plan that is consistent with State law and objectives

Navigant finds these objectives to be clear and in alignment with the intent of 8387(b)(2)(B).

⁶ The Port's WMP utilizes the headings from PUC 8387 for the headings of the appropriate sections of the WMP this allows for easy cross-referencing between the WMP and PUC 8387. To avoid duplication, Navigant chose not to restate the title of each section of the Plan.

The Port describes its preventative strategies and programs beginning on page six of the WMP. The Port includes descriptions of the following actions and programs to reduce fire starts and improve response:

- Minimize landscaped and vegetated areas on its property, typically limited to irrigated landscaping or environmentally sensitive habitats such as wetlands not in the vicinity of utility infrastructure
- Minimize overhead power lines – the Port owns less than 1.5 miles of overhead lines
- Institute maintenance protocols by dedicated Facilities staff to inspect and perform preventative and as needed maintenance on the electrical system
- Incorporate inspection and maintenance requirements provided in CPUC GO 165 and CPUC GO 95, Rule 18 into current inspection protocols and schedules, creating a more mature planned inspection program
- Inspect infrastructure on a weekly, monthly, and annual basis depending on the element of the system.
- Institute preventative maintenance work orders for Vegetation Management in accordance with CPUC GO 95 (see “Vegetation Management” below)
- Track weather related to potential fire risk and tracks specific environmental and geographical conditions and communicates relevant information and alerts to staff and tenants for vigilance of increased wildfire potential
- Monitor drought conditions and other relevant factors throughout the year to determine if more frequent inspections are required
- Port field staff receive extensive training in safety related to the electric utility environment and proper operating conditions and maintenance protocols to prevent fires
- Incorporate additional training programs for its workforce to educate staff in looking for factors that can contribute to any type of fire from electrical infrastructure

For a utility with such low relative risk, these preventative strategies are helpful in reducing wildfire risk related to utility activities.

2.1.1 Risk Assessment & Drivers

PUC Section 8387

(J) A list that identifies, describes, and prioritizes all wildfire risks, and drivers for those risks, throughout the local publicly owned electric utility’s or electrical cooperative’s service territory. The list shall include, but not be limited to, both of the following:

(i) Risks and risk drivers associated with design, construction, operation, and maintenance of the local publicly owned electric utility’s or electrical cooperative’s equipment and facilities.

(ii) Particular risks and risk drivers associated with topographic and climatological risk factors throughout the different parts of the local publicly owned electric utility’s or electrical cooperative’s service territory.

(L) A methodology for identifying and presenting enterprise-wide safety risk and wildfire-related risk.

Wildfire risks are addressed in the section with that heading on pages 5 and 6.

The Port identifies and incorporates enterprise risks associated with fire, including wildfire into the Port's design, construction, maintenance, and operations. Also, as part of ascertaining the level of enterprise risk of wildfire, the Port reviewed historic outages in the Port caused by animals, birds, vegetation, car-pole accidents, and overhead equipment failures. Generally, these are not viewed as having a meaningful risk of igniting wildfires due to lack of vegetation near the source of the risk. The potential risks and this mitigation plan are presented to the Board of Port Commissioners and the Port's senior staff as well all relevant staff who need to be trained in aspects of the Plan.

With respect to risk drivers, the Port notes its territory is located along the San Francisco Bay and consists of mostly paved areas and limited vegetation. Therefore, the typical risk drivers of wildfires do not exist in the Port Utility areas. Typical risk drivers and their characterization in the Port Utility areas include the following:

- Extended drought - low risk due to limited vegetation isolated by paved and graded areas and open water/wetlands
- Vegetation type – low risk due to isolated areas of vegetation, irrigated landscaping, and limited isolated trees and brush
- Vegetation Density – low risk due to very low density and maintenance requirements for safe operations where vegetation exists
- Terrain – low risk as virtually all areas are flat and primarily paved or graded to serve their intended transportation purpose
- Communities at Risk – low risk as residential communities are separated from the Port area by highways, railyards and/or industrial areas
- Fire History – low risk as there is no known history of wildfires occurring in the Port area
- Overhead power lines – low risk as all of the Airport area does not have overhead lines and the majority of the Seaport area does not have overhead lines.
- Changing Weather Patterns (Climate Change)

The Port also cites weather and high winds without adequately explaining how these risk drivers impact the Port and their wildfire risk. Navigant recommends including an explanation how the weather patterns and winds have the potential to impact operations and the potential for wildfire at the Port.

The risks and risk drivers listed above adequately capture the risk and the associated risk drivers faced by the Port as it seeks to eliminate the Port's contributions to fire starts and to protect the Port's infrastructure from wildfire. However, Navigant recommends the Port incorporate a formalized risk assessment methodology to comprehensively evaluate safety and wildfire risks and drivers.

2.1.2 Asset Overview & Service Territory

PUC Section 8387

(K) Identification of any geographic area in the local publicly owned electric utility's or electrical cooperative's service territory that is a higher wildfire threat than is identified in a commission fire threat map, and identification of where the commission should expand a high fire-threat district based on new information or changes to the environment.

Section (b)(2)(K) of PUC 8387 is addressed on page 3 of the WMP. This section notes, the Port's utility infrastructure is not located within or adjacent to any areas of the designated by the Oakland Fire Department or CPUC as high fire severity zones. Staff consulted with OFD's Vegetation Management Unit, and OFD concurs that the Port's overhead electrical lines and equipment are not in an area with a significant risk of catastrophic wildfire. The Port is approximately five miles or greater from the nearest OFD-designated high fire severity area, and the CPUC Fire-Threat map shows the Port utility infrastructure is also approximately five miles or greater from any area with an elevated risk and further from any area with an extreme risk for utility-associated wildfire.

Historically, there has not been any wildfire in the Port area.

The Port did not identify any areas where the commission should expand a high fire-threat district based on new information or changes to the environment.

2.1.3 Wildfire Prevention Strategies

PUC Section 8387

(F) Protocols for disabling reclosers and deenergizing portions of the electrical distribution system that consider the associated impacts on public safety, as well as protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure.

(H) Plans for vegetation management.

(I) Plans for inspections of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.

2.1.3.1 Disabling Reclosers

This requirement is not applicable as the Port does not have automatic reclosers. If a circuit opens, Port staff manually inspects, contacts the tenant if relevant, and, if safe, reenergizes the line.

2.1.3.2 De-Energization Protocols

The Port addresses the possibility of de-energization on page 8. Specifically, the Port states, in events where power needs to be shut off due to planned or unplanned maintenance, the Port follows procedures to ensure safety and the expedited restoration of service through its standard protocols and training of staff on those work safety protocols. All transmission lines to the Port distribution lines are owned by PG&E. If PG&E shuts off power to the Port service area due to a wildfire event, Port staff will work to protect the grid from the effects of a sudden power loss and restoration

Navigant recommends the Port develop a protocol document that lays out the steps it will take to minimize the impacts a PG&E public safety power shutoff of the power feeding the Port.

2.1.3.3 Vegetation Management

The Port's approach to vegetation management is based upon the requirements of CPUC GO95 Rule 35 and is described on pages 9-10 of the Plan. The Harbor and Airport Facilities Managers are responsible for vegetation management, and maintenance of utility infrastructure. Vegetation management is primarily performed on an as-needed basis, rather than scheduled as part of a prescribed management cycle.

As previously described, there is very little vegetation in the Port area. Much of the existing vegetation is in wetland areas, graded or mowed areas, or irrigated landscaping. The Port also meets or exceeds the minimum industry standard vegetation management practices related to electric utility infrastructure it owns and maintains. For both transmission and distribution level facilities, the Port meets: (1) Public Resources Code section 4292; (2) Public Resources Code section 4293; (3) GO 95 Rule 35; and (4) the GO 95 Appendix E Guidelines to Rule 35. These standards require significantly increased clearances in the High Fire Threat District, which the Port is not located in. The recommended time-of-trim guidelines do not establish a mandatory standard, but instead provide useful guidance to utilities. The Port will use specific knowledge of growing conditions and tree species to determine the appropriate time of trim clearance in each circumstance. The Port currently has an active landscape management plan across its territory and complies with the requirements of Rule 35 in the Port utility infrastructure area.

The Port evaluates trees that have the potential to strike overhead facilities if they were to fall. The Port performs more frequent and detailed inspections of any such trees. In cases where "hazard trees" (dead, dying, diseased or leaning) could strike the facilities, the Port will remove, or work with the landowner to remove, the tree or portion of the tree that poses a risk.

Navigant believes these vegetation practices combined with the limited amount of overhead equipment meets the intent of 8387(b)(2)(H). Navigant recommends the Port institute a proactive, rather than a reactive, vegetation management plan that seeks to trim vegetation back on a cyclical basis.

2.1.3.4 Infrastructure Inspections

The Port's inspection program is inadequately described on the "Inspections" section on page 10 of the WMP where it states Annual inspections of the electrical infrastructure are currently performed by Port facilities staff. Other sections describe how the Port will incorporate CPUC GO 165 and GO 95 Rule 18 into their inspection protocols. This should be incorporated into the section on inspections.

Navigant understands that the overhead facilities are patrolled regularly, but as with the vegetation management plan, Navigant recommends a formal, cyclical inspection program based on GO 165 and GO 95 rule 18.

2.1.4 Response & Restoration

PUC Section 8387

(G) Appropriate and feasible procedures for notifying a customer who may be impacted by the deenergizing of electrical lines. The procedures shall consider the need to notify, as a priority, critical first responders, health care facilities, and operators of telecommunications infrastructure.

(M) A statement of how the local publicly owned electric utility or electrical cooperative will restore service after a wildfire.

2.1.4.1 Event Communication

The Port's WMP discusses Customer Notification Procedures on page 8. The Port has a three operations centers, two of which (Port and OAK) are 24/7 operations centers, one for the Airport and one for the Seaport. The Port has a robust Emergency Notification System (ENS), and official public bulletins, which is utilized routinely to notify tenants and staff of operational incidences and impacts in the Airport area. The Port will also utilize this system to similarly notify tenants and staff in the Seaport area. Some Port customers will be contacted through the Port Utilities Department or its designees from each of the Port's business units as appropriate. The Port will continue to actively update its emergency contact list for all tenants.

2.1.4.2 Restoration

Safety of the public, tenants, and staff is the Port’s highest priority. The sequence for service restoration includes the following:

- Port crews complete an assessment of the overall system and focus on repairing major lines and substations. Crews must also clear hazards such as snapped or leaning utility poles.
- Port crews focus on restoring power to key services essential to community safety, health and welfare—such as fire and life safety systems, pumps, security areas, substations, cranes, etc.
- Repair priorities are based on the electrical facilities that will return service to the largest number of customers in the shortest period. Once crews restore major circuits, they then turn their attention to system repairs that affect fewer customers.
- Port crews must repair damaged substations and main electric lines and wires that feed power to all Port locations. Next, downed or damaged wires between utility poles and individual service lines are repaired.

Navigant believes the restoration process satisfies the intent of PUC 8387 (b)(2)(M).

2.1.5 Plan Execution, Monitoring, & Metrics

PUC Section 8387

(A) An accounting of the responsibilities of persons responsible for executing the plan.

(D) A description of the metrics the local publicly owned electric utility or electrical cooperative plans to use to evaluate the wildfire mitigation plan’s performance and the assumptions that underlie the use of those metrics.

(E) A discussion of how the application of previously identified metrics to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.

(N) A description of the processes and procedures the local publicly owned electric utility or electrical cooperative shall use to do all of the following:

(i) Monitor and audit the implementation of the wildfire mitigation plan.

(ii) Identify any deficiencies in the wildfire mitigation plan or its implementation and correct those deficiencies.

- (iii) Monitor and audit the effectiveness of electrical line and equipment inspections, including inspections performed by contractors, that are carried out under the plan, other applicable statutes, or commission rules.
-

2.1.5.1 Responsibilities of Persons Responsible for Executing the Plan

Page two of the Plan identifies the responsibilities of those who will develop, maintain, and execute the Port's WMP. Roles and responsibilities include:

- Board of Commissioners – Review and approve the Plan
- Executive Director – Direct Port resources to ensuring the Plan is implemented, evaluated, and maintained
- Directors of Maritime and Aviation – Responsible for communications to the Port's tenants within the Maritime Operations Area and OAK respectively
- Harbor and Airport Facilities Managers – Responsible for vegetation management, and maintenance of utility infrastructure
- Manager of Utilities Administration – Responsible for the development and maintenance of the Plan, collection of relevant data necessary for the implementation of this Plan, tracking metrics to determine the Plan's effectiveness

Given the small size of the Port, this satisfies the intent of 8387(b)(2)(A).

2.1.5.2 Metrics

The City identified five metrics that will be used to evaluate the Plan's performance. Table 2, below, identifies and describes each of these metrics.

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Table 2: Port Proposed Metrics

Specific metric	Indicator	Measure of effectiveness	Criteria
Ignitions caused by utility equipment	Count of events	Decrease over time	<p>To be tracked by the Port, a fire ignition is:</p> <ul style="list-style-type: none"> • A Port facility was associated with the fire • The fire was self-propagating and of a material other than electrical or communication facilities • The resulting fire traveled greater than one linear meter from the ignition point; and • The Port has knowledge that the fire occurred
Wires Down	Count of events	Not stated	For purposes of this metric, a “wires down event” includes any instance where an electric transmission or primary distribution conductor falls to the ground or on to a foreign object.
Annual Inspection / Documentation of Plan	Visual inspections of compliance, records inspection of completed work orders	Not Stated	This metric will evaluate the level of conformance with the plan.

Although, Navigant finds these metrics to meet the objective, Navigant recommends adding clarity around the annual inspection metric. What specifically, will be tracked and what will indicate good or poor performance.

2.1.5.3 Monitoring and Auditing the Plan

According to the Plan, Port staff will modify the WMP as needed. Changes will be incorporated, reviewed, and presented to the Board of Commissioners at least annually. The Plan may also from time to time be audited by the Port’s internal auditor.

The Port has emergency operations plans that are updated as needed, and according to federal regulations where appropriate, and covers many different potential events. These include weather, accidents, terrorism, earthquakes, and more. The Port also exercises its plans with annual tabletops and major live exercises at least every three years. Inspecting locations for potential hazards is an on-going task at the Port that is regularly performed. This Plan and the Emergency Operations Plans will be coordinated.

Navigant recommends adding more clarity to future iterations, including detailing how the metrics will be evaluated, and assigning roles and responsibilities for the execution of both the inspection audits, and the audit of the Plan. In addition, or as an alternative, the Port may create an audit procedure or plan to audit the WMP and reference that audit procedure or plan in the WMP.

2.1.5.4 Annual Review

The WMP will be reviewed at least annually. The review will include assessments of the WMP's programs and performance. Page 11 of the Plan also states the Plan will be presented to Port Board of Commissioners on an annual basis at a duly noticed public meeting.

This satisfies the annual review requirement.

3. RESULTS & DISCUSSION

Navigant concluded this assessment on March 24, 2020. Over the course of reviewing the Port's WMP and supporting documentation, Navigant captured takeaways and findings that align the Plan with state laws and effective wildfire measure demonstration. The Port's Plan appropriately responds to each of the required elements of PUC Section 8387, which is detailed in Appendix A. The following describes the assessment and resulting findings of the Plan's proposed and established mitigation measures as it applies to safe, reliable operation of all electric infrastructure and wildfire prevention and response.

Report Conclusions

After internal review of the latest version of the WMP and associated data collection products, Navigant concludes this Report with the following:

1. The Port's WMP aligns appropriately with PUC Section 8387 and includes all required elements.⁷
2. The Port's Plan is determined to be comprehensive as described throughout this Report.

⁷ Following acceptance of this Report, the Port will post the Report and results online for public view. The Report is scheduled for presentation to the City Council at a public meeting in December 2019. Accomplishing these follow-up tasks will meet all required statutory provisions up until presenting the final WMP to the City Council.

APPENDIX A. STATUTORY COMPLIANCE MATRIX

Required Statutory Element	Plan Section Reference(s)	the Port Plan Elements (Summarized)	Meets Section Elements (Determination)
<p>(a) Each local publicly owned electric utility and electrical cooperative shall construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of wildfire posed by those electrical lines and equipment.</p>			
<p>(b) (1) The local publicly owned electric utility or electrical cooperative shall, before January 1, 2020, prepare a wildfire mitigation plan. After January 1, 2020, a local publicly owned electric utility or electrical cooperative shall prepare a wildfire mitigation plan annually and shall submit the plan to the California Wildfire Safety Advisory Board on or before July 1 of that calendar year. Each local publicly owned electric utility and electrical cooperative shall update its plan annually and submit the update to the California Wildfire Safety Advisory Board by July 1 of each year. At least once every three years, the submission shall be a comprehensive revision of the plan.</p>			
<p>(2) The wildfire mitigation plan shall consider as necessary, at minimum, all of the following:</p>			
<p>(A) An accounting of the responsibilities of persons responsible for executing the plan.</p>	<p>Pages 2-3</p>	<p>The Port's Plan identifies the responsibilities of those who will executed the Port's WMP. The Manager of Utilities Administration is responsible for the development and maintenance of the Plan, collection of relevant data necessary for the implementation of this Plan, tracking metrics to determine the Plan's effectiveness. The Board is responsible for review and approval of the Plan and the Executive Director shall direct Port resources to ensure the Plan is implemented, evaluated, and maintained. Given the</p>	<p>Yes</p>

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		<p>small size of the Port Utilities, this satisfies the intent of 8387(b)(2)(A).</p>	
<p>(B) The objectives of the wildfire mitigation plan.</p>	<p>Page 3</p>	<p>The Port WMP clearly states the Plan objectives. The Port identifies three objectives:</p> <ol style="list-style-type: none"> 1. Minimize the probability that the Port’s electric system is the origin or contributing source for ignition of a wildfire, 2. Implement a WMP that reflects safety, prevention, mitigation, and recovery are central to the Port’s goals, and 3. Ensure the Port of Oakland maintains a Wildfire Mitigation Plan that is consistent with State law and objectives. 	<p>Yes</p>
<p>(C) A description of the preventive strategies and programs to be adopted by the local publicly owned electric utility or electrical cooperative to minimize the risk of its electrical lines and equipment causing catastrophic wildfires, including consideration of dynamic climate change risks.</p>	<p>Pages 6-8</p>	<p>Port staff has or will implement the following preventative strategies and programs to minimize the risk of causing wildfires:</p> <ul style="list-style-type: none"> • Minimize landscaped and vegetated areas on its property • Minimize overhead power lines • Implement protocols to inspect and perform preventative and as needed maintenance • Incorporate inspection and maintenance requirements provided in CPUC GO 165 and CPUC GO 95, Rule 18 into current inspection protocols and schedules • Inspect infrastructure on a weekly, monthly, and annual basis depending on the element. • Perform preventative maintenance work orders for Vegetation Management in accordance with CPUC GO 95 • Track weather related to potential fire risk and communicates relevant information and alerts to staff and tenants for vigilance of increased wildfire potential • Monitor drought conditions and other relevant factors throughout the year to determine if more frequent inspections are required • Provide or attend extensive training in safety related to the electric utility environment and 	<p>Yes</p>

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		proper operating conditions and maintenance protocols to prevent fires	
(D) A description of the metrics the local publicly owned electric utility or electrical cooperative plans to use to evaluate the wildfire mitigation plan's performance and the assumptions that underlie the use of those metrics.	Pages 7-8	The Port will track three metrics 1. Ignitions caused by utility equipment, 2. Wires down, and 3. Annual inspection performance. Navigant recommends adding additional clarity and targets to the inspection performance metric over time to help identify trends and goals.	Yes
(E) A discussion of how the application of previously identified metrics to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.	Page 9	the Port was not been previously required to have a WMP. Therefore, information related to previous metrics is not available in the context of a WMP. Future versions of the WMP should include a discussion of previous metrics and how those metrics are used to shape and improve measures to reduce the risk of wildfires.	Yes
(F) Protocols for disabling reclosers and deenergizing portions of the electrical distribution system that consider the associated impacts on public safety, as well as protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure.	Page 8	The Port does not have automatic reclosers. The Port does not intend to de-energize any portion of its system due to wildfire risk. This is primarily because the relative risk of wildfire caused by the Port's facilities is very low. Navigant recommends developing a protocol or procedure to minimize the impacts of a potential PG&E PSPS on the Port's facilities and customers.	Yes
(G) Appropriate and feasible procedures for notifying a customer who may be impacted by the deenergizing of electrical lines. The procedures shall consider the need to notify, as a priority, critical first responders, health care facilities, and operators of telecommunications infrastructure.	Page 8	The Port's WMP discusses Customer Notification Procedures on page 8. The Port has a three operations centers, two of which (Port and OAK) are 24/7 operations centers, one for the Airport and one for the Seaport. The Port has a robust Emergency Notification System (ENS), and official public bulletins, which is utilized routinely to notify tenants and staff of operational incidences and impacts in the Airport area. The Port will also utilize this system to similarly notify tenants and staff in the Seaport area. Some Port customers will be contacted through the Port Utilities Department or its designees from each of the Port's business units as appropriate. The Port will continue to actively update its emergency contact list for all tenants.	Yes

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<p>(H) Plans for vegetation management.</p>	<p>Page 9</p>	<p>The Port also meets or exceeds the minimum industry standard vegetation management practices related to electric utility infrastructure it owns and maintains. For both transmission and distribution level facilities, the Port meets: (1) Public Resources Code section 4292; (2) Public Resources Code section 4293; (3) GO 95 Rule 35; and (4) the GO 95 Appendix E Guidelines to Rule 35.</p> <p>The Port will use specific knowledge of growing conditions and tree species to determine the appropriate time of trim clearance in each circumstance. The Port currently has an active landscape management plan across its territory and complies with the requirements of Rule 35 in the Port utility infrastructure area.</p> <p>Navigant recommends formalizing the Port's vegetation management plan and plan trimming on a cyclical basis.</p>	<p>Yes</p>
<p>(I) Plans for inspections of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.</p>	<p>Pages 6, 11-12</p>	<p>The Port's inspection program is described in both the preventive strategies section and a stand-alone inspection section. The Port states that it follows GO 165 to inspect the condition of equipment/facilities, vegetation encroachment, and need for and prioritization of maintenance action. These practices are detailed in the Plan and further elaborated in the Preventative Maintenance and Inspection Program. This program should become formalized.</p> <p>In the future, the Port should consider formalizing and tracking the progress of its inspection program.</p>	<p>Yes</p>
<p>(J) A list that identifies, describes, and prioritizes all wildfire risks, and drivers for those risks, throughout the local publicly owned electric utility's or electrical cooperative's service territory. The list shall include, but not be limited to, both of the following:</p>	<p>Pages 12-13</p>	<p>The Port identified numerous risks and risk drivers addressing this requirement.</p>	<p>Yes</p>

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<p>(i) Risks and risk drivers associated with design, construction, operation, and maintenance of the local publicly owned electric utility's or electrical cooperative's equipment and facilities.</p>	<p>Pages 12-13</p>	<p>The Port looked at causes of historical outages caused by animals, vegetation, equipment failures, etc.</p>	<p>Yes</p>
<p>(ii) Particular risks and risk drivers associated with topographic and climatological risk factors throughout the different parts of the local publicly owned electric utility's or electrical cooperative's service territory.</p>	<p>Page 13</p>	<p>The Port identified several topographical/climatological risks in the Plan including, but not limited to, vegetation, extended drought, high winds, terrain, communities at risk, weather patterns, and prior fire activity.</p>	<p>Yes</p>
<p>(K) Identification of any geographic area in the local publicly owned electric utility's or electrical cooperative's service territory that is a higher wildfire threat than is identified in a commission fire threat map, and identification of where the commission should expand a high fire-threat district based on new information or changes to the environment.</p>	<p>Page 14</p>	<p>Section (b)(2)(K) of PUC 8387 is addressed on page 3 of the WMP. This section notes, the Port's utility infrastructure is not located within or adjacent to any areas of the designated by the Oakland Fire Department or CPUC as high fire severity zones. Staff consulted with OFD's Vegetation Management Unit, and OFD concurs that the Port's overhead electrical lines and equipment are not in an area with a significant risk of catastrophic wildfire. The Port is approximately five miles or greater from the nearest OFD-designated high fire severity area, and the CPUC Fire-Threat map shows the Port utility infrastructure is also approximately five miles or greater from any area with an elevated risk and further from any area with an extreme risk for utility-associated wildfire.</p> <p>The Port has not identified any portion of its system which should be included in a higher risk zone than is currently established and is not making any recommendations to the expand the area of a high fire threat district.</p>	<p>Yes</p>

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<p>(L) A methodology for identifying and presenting enterprise wide safety risk and wildfire-related risk.</p>	<p>Page 14</p>	<p>The Port's methodology for identifying and presenting enterprise-wide safety risk and wildfire-related risk is based on the use of historical data outages. Specifically, the Port analyses historic of outages and wildfires (no previous fires) to assess its risk levels.</p> <p>Navigant recommends the development/ implementation of a more formalized risk assessment methodology for future iterations of the Plan.</p>	<p>Yes</p>
<p>(M) A statement of how the local publicly owned electric utility or electrical cooperative will restore service after a wildfire.</p>	<p>Pages 14-15</p>	<p>The Port addresses the possibility of de-energization on page 8. Specifically, the Port states, in events where power needs to be shut off due to planned or unplanned maintenance, the Port follows procedures to ensure safety and the expedited restoration of service through its standard protocols and training of staff on those work safety protocols. All transmission lines to the Port distribution lines are owned by PG&E. If PG&E shuts off power to the Port service area due to a wildfire event, Port staff will work to protect the grid from the effects of a sudden power loss and restoration</p> <p>Navigant recommends the Port develop a protocol document that lays out the steps it will take to restore power to Port facilities following a de-energization event instituted by PG&E..</p>	<p>Yes</p>
<p>(N) A description of the processes and procedures the local publicly owned electric utility or electrical cooperative shall use to do all of the following:</p>	<p></p>	<p></p>	<p></p>
<p>(i) Monitor and audit the implementation of the wildfire mitigation plan.</p>	<p>Page 15</p>	<p>Oversight, monitoring and auditing of the Plan will occur at least annually.</p> <p>According to the Plan, Port staff will modify the WMP as needed. Changes will be incorporated, reviewed, and presented to the Board of Commissioners at least annually. The Plan may also from time to time be audited by the Port's internal auditor.</p> <p>The Port has emergency operations plans that are updated as needed, and according to federal regulations where appropriate, and covers many different potential events. The Port also exercises its</p>	<p>Yes</p>

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		<p>plans with annual tabletops and major live exercises at least every three years.</p>	
<p>(ii) Identify any deficiencies in the wildfire mitigation plan or its implementation and correct those deficiencies.</p>	<p>Page 15</p>	<p>Inspecting locations for potential hazards is an on-going task at the Port that is regularly performed.</p> <p>Navigant recommends adding more clarity to future iterations, including detailing how the metrics will be evaluated, and assigning roles and responsibilities for the execution of both the inspection audits, and the audit of the Plan. In addition, or as an alternative, the Port may create an audit procedure or plan to audit the WMP and reference that audit procedure or plan in the WMP.</p>	<p>Yes</p>
<p>(iii) Monitor and audit the effectiveness of electrical line and equipment inspections, including inspections performed by contractors, that are carried out under the plan, other applicable statutes, or commission rules.</p>	<p>Page 15</p>	<p>According to the Plan, Port staff will modify the WMP as needed. Changes will be incorporated, reviewed, and presented to the Board of Commissioners at least annually. The Plan may also from time to time be audited by the Port's internal auditor. Inspecting locations for potential hazards is an on-going task at the Port that is regularly performed.</p> <p>Navigant recommends adding more clarity to future iterations, including detailing how the metrics will be evaluated, and assigning roles and responsibilities for the execution of both the inspection audits, and the audit of the Plan. In addition, or as an alternative, the Port may create an audit procedure or plan to audit the WMP and reference that audit procedure or plan in the WMP.</p>	<p>Yes</p>

<p>(3) The local publicly owned electric utility or electrical cooperative shall, on or before January 1, 2020, and not less than annually thereafter, present its wildfire mitigation plan in an appropriately noticed public meeting. The local publicly owned electric utility or electrical cooperative shall accept comments on its wildfire mitigation plan from the public, other local and state agencies, and interested parties, and shall verify that the wildfire mitigation plan complies with all applicable rules, regulations, and standards, as appropriate.</p>	<p>Page 15</p>	<p>The Port presented its WMP to the Board at a public meeting in December 30, 2019. A second presentation will occur on April 9, 2020.</p>	<p>Yes</p>
<p>(c) The local publicly owned electric utility or electrical cooperative shall contract with a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of its wildfire mitigation plan. The independent evaluator shall issue a report that shall be made available on the internet website of the local publicly owned electric utility or electrical cooperative and shall present the report at a public meeting of the local publicly owned electric utility's or electrical cooperative's governing board.</p>		<p>The Port contracted with Navigant to perform an independent evaluation of its WMP. Qualifications are described in Section 1.</p>	<p>Yes</p>