

October 24, 2019

County of San Diego Planning & Development Services
5510 Overland Avenue, Suite 321
San Diego, CA 92123

Fire District

North County Fire Protection District
330 S. Main Avenue
Fallbrook, CA 92028

SUBJECT: FIRE PROTECTION PLAN – LETTER REPORT
AES Battery Storage Project MPA-18-010;
AES Fallbrook APN 105-410-19-00

This Fire Protection Plan (FPP) – Letter Report is submitted pursuant to the County Fire Code and County Consolidated Fire Code, to address the adverse environmental effects that a proposed project may have from wildland fire and to provide mitigation of those impacts to ensure that the project does not expose people or structures to a significant risk of loss, injury or death involving wildland fires.

PROJECT DESCRIPTION

AES proposes to build The Fallbrook Battery Energy Storage System (BESS) on the 4.22-acre site. All the surrounding residential lots are designated for Village Residential (VR-2) under the County's General Plan and are zoned Rural Residential. The project site includes five assessor parcels located at 1405 East Mission Road (Table 1). The adjoining 4.87-acre parcel is also owned by AES and will be utilized for the access road. The BESS proposed by AES would help SDG&E meet their energy storage mandate while also providing local area capacity for electrical system reliability and flexibility. The project site and the parcels adjacent to the south and southwest are designated for Limited Impact Industrial uses in the County's General Plan. This designation provides for both freestanding and campus-style industrial development in Village and Semi-Rural areas with access to key transportation corridors at a maximum floor area ratio (FAR) of 0.60. Typical uses within this designation include light manufacturing, processing, and assembly, all within enclosed buildings, with no exterior indications of such activity or need for outdoor storage. This designation may be near residential and commercial designations in Village and Semi-Rural areas with suitable screening and buffering. Supporting uses, such as office, business service, and institutional uses and accessory retail uses are also allowed (General Plan, page 3-15). (Haley and Aldrich, 2018).

ENVIRONMENTAL SETTING

1. **Location:** The project site is located within the northeastern portion of the unincorporated community of Fallbrook, in northwestern San Diego County (County), approximately 19 miles inland from the Pacific Ocean, 6 miles northeast of Camp Pendleton, 3 miles south of Riverside County, and 3 miles west of Interstate 15. The project site is immediately adjacent to rural residential and agricultural land uses. Within the larger context, more than 400 feet from

the project site, the land uses surrounding the project site become more intense. The surrounding land uses are described in more detail as follows:

- West – Industrial and Institutional uses (religious)
- North – East Mission Road and Rural Residential
- East – Pumpkin Farm and Rural Residential
- South – Village Residential (tract housing)

All the surrounding residential lots are designated for Village Residential (VR-2) under the County's General Plan and are zoned Rural Residential. However, existing development patterns include large lot estate residential type land uses immediately to the north and east; while the development to the south, southeast, and southwest is tract housing at a slightly higher density. The industrial complex to the west includes a Calvary Chapel Church as well as an animal hospital and industrial uses such as welding and sign shops and a granite fabricator. (Haley and Aldrich, 2018)

2. **Topography:** The site topography is gently sloping with elevations ranging from approximately 789 to 832 feet above mean sea level (amsl).
3. **Geology:** The geology is unremarkable as the access road follows the terrain. Roadway elevation would be 690 feet at East Mission Road, 676 feet midway, and 684 feet entering the project site.
4. **Flammable Vegetation:** Portions of the site are used for estate residential, and previously for agricultural purposes (primarily citrus crops) since 1994 or earlier, the remnants of which are still visible in places (e.g., irrigation pipe, tree stumps, etc.). However, no active agricultural uses are currently taking place and the AES keeps the properties in compliance with North County Fire Protection Districts weed abatement ordinance.
5. **Climate:** The site is inland near the downtown community of Fallbrook, subject to westerly breezes, and possible events of Santa Ana winds.

PROJECT EXPOSURE TO WILDLAND FIRES

1. Water Supply: Hydrants shall be located along fire access roadways as determined by the Fire Marshal to meet operational needs, at intersections, at cul-de-sacs, and at intervals pursuant to the County and Consolidated Fire Code. Required fire flow in water main is 2,500 gallons per minute. Water for the project will be provided by Fallbrook Public Utilities District. One residential type fire hydrant shall be installed at the intersection of the access road and East Mission. One residential type fire hydrant shall be installed at the terminus of the to be named access road and the driveway to the project site.

2. Fire Access Roads:

Location. The project site includes four assessor parcels located at 1405 East Mission Road (Table 1). The access road will provide access for all five parcels.

Table 1. Project Site Parcels

Assessor's Parcel Number (APN)	Area (acres)	Proposed Use	%Development
105-410-19	4.22	Development of BESS	
105-410-10*	4.87	Development of access driveway	
105-410-11*	5.04		
105-410-44	5.79	Limited use for 30' easement	
TOTAL	19.92		

*Combined as one parcel.

The access road proceeds south off East Mission for approximately 380 to the site. See Figure 1. Site Plan. The strictest maximum dead end road length would be 800 feet for parcels zoned less than 1 acre. The approximate length of the proposed access road is 380 feet.

Width: The access road proceeding south of East Mission, shall be graded 28-foot width and paved to 24 feet wide with an all-weather surface suitable for travel by 75,000 lb. fire apparatus. The driveway through the project shall be 24 feet wide and a fire department turnaround will be installed at the north end of the project where it joins the access road. The driveway serving the project will proceed south and shall be 24 feet wide terminating in a 40-foot radius cul-de-sac.

Vertical Clearance: A "minimum vertical clearance of 13 feet 6 inches shall be maintained for the entire required width of fire access roads".

Grade: The grade is relatively flat from the intersection of East Mission Road the elevation would be 690 feet at East Mission Road, 676 feet midway, and 684 feet entering the project site. The steepest portion of the access road is 15% and the driveway will have not exceed 4% slope.

Surface: The access road and driveway shall be paved with asphalt to meet the 75,000- pound requirement.

Gate: There will be a gate that shall have a North County Fire approved Knox box key opener installed. An exit loop will also be installed. The gate opening shall be 24 feet in the clear across the access road.


- 3. Setback from Property Lines:** The Setback from Property Lines: 30 plus feet to the north and west, 15 feet on the southern boundary and 20 feet on the eastern boundary. The project is located in North County Fire's Local Response Area and is not listed as high fire hazard area. (The minimum setback from any property line in high hazard areas is 30 feet (even though Zoning Setback may be less).
- 4. Building Construction:** "All structures shall comply with the ignition-resistive construction requirements: Wildland- Urban Interface areas of Chapter 7A of the County Building Code." The layout includes: (16) containers on individual concrete equipment pads; (16) inverters/transformers on individual concrete equipment pads.

5. **Fire Protection Systems:** “All proposed structures that require to have automatic fire sprinklers per County Code or County Consolidated Code shall be equipped with automatic fire sprinklers.” The containers will be equipped with Fire suppression systems, (clean agent Novec 1230 in a tank connected to nozzles and designed to flood the entire container during fire event) with early smoke detection, alarms and remote monitoring. The fire protection system plans will be submitted to North County Fire for approval.
6. **Defensible Space (Fuel Modification Zones):** “A minimum 100-foot Fuel Management Zone will be established and maintained around all structures over 250 square feet in size. No off-site clearing is required or authorized.” The construction of the project will result in the entire site being impacted by grading and construction. The entire site will be paved or have gravel. Off-site is completely cleared except for a few Oak trees which are kept limbed up and devoid of flammable vegetation.
7. **Vegetation management:** “Prescribed Defensible Space (fuel management zones) will be maintained by the property owners at least annually or more often as needed. Over the years the surrounding properties owned by the applicant have complied with North County Fire Protection Districts vegetation management program and will continue to do so.
8. **Fire Behavior Computer Modeling:** Based on the preliminary evaluation, Fire Behavior Modeling is not required for this FPP-Letter Report.


References

Haley Aldrich . (2018). *Fallbrook Draft Project Description* .

Haley Aldrich . (2018). *Project Description* . San Diego: Haley Aldrich .


Prepared by (Signature)

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