

DOCKETED

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Document Title:	Data Requests No. 115 Research Design comments by staff for Mission Rock Energy Center
Description:	Refinement of Data Request No. 115 Research Design regarding Cultural Resources
Filer:	Mike Monasmith
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Submitter Role:	Commission Staff
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November 11, 2016

Mitch Weinberg
Calpine Company
4160 Dublin Boulevard, Suite 100
Dublin, CA. 94568

**RE: MISSION ROCK ENERGY CENTER (15-AFC-02) CULTURAL RESOURCES RESEARCH
DESIGN AND SURVEY METHODOLOGY**

Dear Mr. Weinberg;

In response to Staff's Data Request No. 115 issued on October 6, 2016, the applicant submitted a draft research design for review. In keeping with the Data Request Issues Resolution workshop held on September 23, 2016, staff has provided the attached comments and suggestions to assist the applicant in providing the information requested in Data Request No. 115. The suggested changes are made in Track Changes. A justification for each suggested change is included in the margins as a comment.

If you have any questions, please call me at (916) 654-4894, or E-mail me at: mike.monasmith@energy.ca.gov.

Sincerely,

Mike Monasmith
Siting Project Manager

Mission Rock Energy Center

Cultural Resources Research Design and Survey Methodology

PREPARED FOR: Mission Rock Energy Center, LLC
PREPARED BY: Amy McCarthy-Reid, MaryNell Nolan-Wheatley, Doug Davy, CH2M
DATE: October 26, 2016

Mission Rock Energy Center, LLC (MREC, LLC) filed an Application for Certification (AFC) to the California Energy Commission (CEC) for the Mission Rock Energy Center (MREC) in Ventura County, California and the CEC deemed the AFC to be data adequate on May 17, 2016. The MREC is a 275 MW natural gas-fired power plant with a battery array for energy storage and associated generator tie-line, natural gas pipeline, and water supply pipeline.

As part of the development of environmental baseline information for the AFC, MREC, LLC conducted an inventory of potential ~~historic resources~~ historical resources belonging to the built environment (buildings, structures, and objects of the historic era) located within or adjacent to the MREC site and near the gas, water, and generator tie-lines. The literature search for the AFC determined that Ventura County had previously sponsored built environment surveys in the project area and ~~had designated a large area~~ listed the Santa Clara River Valley on the Ventura County Historical Landmarks and Points of Historical Interest, including the project site, gas and water lines and most of the generator tie-line as a historic district called the Santa Clara Valley Rural Historic District (SCVRHD). This district consists of farmsteads, farm equipment, fields, irrigation facilities, crops and crop patterns that exemplify the historical nature of agriculture in the Santa Clara Valley as it developed during the period of significance defined for the district, 1860 to 1945. According to the survey report, SCVRHD illustrates the “development of agricultural products and farming techniques, and documents the progression of this land use from the dry farming of grains and row crops, to irrigated tree crops and citrus ranching” (Stone and Triem, 1995). MREC, LLC conducted a field reconnaissance of areas within one half-mile of the MREC site and generator tie-line to update information previously gathered for built environment properties and to record any properties greater than 50 years of age not previously recorded, for the AFC.

After AFC filing and during the Discovery Phase of licensing, the CEC Staff requested that MREC, LLC make additional efforts to document properties that were inaccessible from public access points during the reconnaissance survey and could not be re-evaluated. Staff requested that MREC, LLC contact the landowners to request permission to access the properties for site recording and document the efforts to gain permission and whether or not permission was granted. For any properties still not accessible, Staff requested that MREC, LLC evaluate those using aerial photographs, maps, and other available resources.

In addition, CEC Staff requested additional recording of structures and objects ancillary to the agricultural activities in the SCVRHD, such as irrigation facilities, tree windrows, roads, and railroads that may contribute to the historical significance of the SCVRHD. As stated in the Ventura County Cultural Heritage Survey Phase V: Western Santa Clara Valley survey report that defined the SCVRHD, “the mapping and documentation of linear resources, such as irrigation ditches, road, railroads, wind rows,

Comment [SMD1]: Historic properties or resources typically refers to the definition in the National Historic Preservation Act. As a CEQA Lead Agency, staff relies on the definition of historical resources provided in California's public resources code. Global comment.

Comment [SMD2]: Point of clarity.

fences and walls” was prohibited due to time constraints (San Buenaventura Research Associates 1996:14-15).

An additional element of the data request is to conduct research and field recording to determine whether properties previously recorded as contributing to the SCVRHD retain their integrity as contributors and whether there are properties not recorded in the original survey that might now be considered as contributing to the SCVRHD.

MREC, LLC and CEC Staff held a workshop on September 23, 2016 to discuss the data request and agree on a plan for MREC, LLC to conduct the additional requested studies. At the workshop, MREC, LLC and CEC Staff agreed that the first step in responding would be for MREC, LLC to develop a Research Design and Survey Methodology for gathering the information needed to respond to the Data Request. CEC Staff subsequently issued Data Request 115, specifying the requested information. This document is the proposed Research Design and Study Methodology submitted in response to Data Request 115.

Research Design for Additional Research

Available Sources

In conducting research for the AFC, MREC, LLC carefully reviewed the Ventura County Cultural Heritage Survey Phase V: Western Santa Clara Valley (San Buenaventura Research Associates 1996) as a key source of detailed information about the properties contributing to the SCVRHD. MREC, LLC also reviewed a number of other sources of information about the history and ~~historic resources~~historical resources in the project area (please see MREC AFC Section 5.3). During this next phase of investigation and in response to Data Request 115, we will continue to work with the sources previously consulted and develop additional sources as available (see discussion under “Repositories” below) to further illuminate historic themes and guide recordation of properties in ways that best illustrate those themes.

Readily available secondary sources the project research team may consult include existing surveys, environmental documents for projects in the vicinity, local histories, and journal articles on the significant historical themes (see References section for a partial list of secondary sources). Primary sources the research team may consult include family histories and records, historic maps and plats, historic photographs, aerial photographs, census records, local and county histories, deeds and wills, commercial records, newspapers, soil surveys, oral surveys, and vegetation surveys.

Comment [SMD3]: Per discussion at Issues Resolution workshop regarding consulting primary and secondary sources to develop thematic historic contexts.

Regional and Cultural Historical Context

The Ventura County Cultural Heritage Survey Phase V: Western Santa Clara Valley (1996) that initially defined the SCVRHD includes a detailed historic context and themes statement for the SCVRHD. The existing historic context will be expanded as needed to give greater attention to property types not emphasized in the previous surveys, such as irrigation facilities, access roads, and major landscaping features (wind rows, etc.). Additional background research and additional archival sources will lead to further refinement of the existing historic context statement for the SCVRHD and identification of any additional key historical themes that apply within the study area, which may include oil development, transportation systems, cultural institutions, and agriculture. See Attachment A for a summary of the historical context, which is more completely described in AFC Section 5.3 and will continue to be developed ~~as needed~~based on the significant historical themes during the upcoming phase of work.

Comment [SMD4]: As identified in Data Request No. 115 regarding thematic historic context. Global comment.

Repositories

MREC, LLC will conduct additional research at the following repositories of historical information, in addition to those previously referenced in the AFC, which may be consulted for information about newly recorded properties and property types. MREC, LLC will conduct additional research in order to supplement the historic context and aid in identifying previously unknown contributing resources,

including the property types not recorded in detail during the original survey (such as irrigation ditches, road, railroads, wind rows, fences and walls).

In addition to agricultural properties, we will investigate oil exploration and production properties in the PAA. Field maps indicate pipelines once existed along the railroad right-of-way that the MREC natural gas line follows and along Telegraph Road, which crosses the generator tie-line route. However, no evidence of a pipeline was observed during the October 2015 survey.

The resources related to oil drilling extant in the project area appear to be associated with the Saticoy Oil Field. The Shell Oil Company owned and operated the Saticoy Oil Field between 1955 and 1984. The 1967 photo-revised 7.5' Santa Paula topographic quadrangle map and the 1967 aerial photograph show oil sumps and wells around the MREC plant site and associated linears. Vintage Production, a subsidiary of Occidental Petroleum, is the primary producer of the wells that remain in operation. Although the oil facilities in the project area are unrelated to the period of significance and agricultural purpose of the SCVRHD, MREC, LLC will conduct further research in order to record and evaluate the historic oil pumps and wells in the Mission Rock and Edwards Ranch areas because oil development is a distinct historic theme identified in the 1996 survey report.

MREC, LLC will conduct additional research at the following repositories of historical information, in addition to those referenced in the AFC, which may be consulted again, to address newly defined or newly accessible resources:

- University of California Santa Barbara Map Library to acquire 1926 and 1947 aerial photographs
- Archives at the Museum of Ventura County for historic maps and photographs
- Limoneira Company archives
- United Water Conservation District, Santa Paula
- Farmer's Irrigation Company, Santa Paula, for additional irrigation-related information
- California Oil Museum, Santa Paula

Survey and Documentation Methodology

Steps to be taken for the survey and documentation of historic propertieshistorical resources will include the following:

- Develop resource typologies fitting the historic themes of the SCVRHD
- Contact properties owners for permission to access the properties
- Plan the survey, using existing sources such as the 1996 report, maps, and aerial photographs, and records of the October 2015 survey
- Conduct the field survey and recording effort
- Prepare and submit report of findings

As was the case with the reconnaissance work done in October 2015, survey of historic built environment resources in the Project Area of Analysis (PAA) will focus mainly on the generator tie-line because any project effects would be indirect and visual effects of the generator tie-line on the setting of historic propertieshistorical resources that are contributing to the SCVRHD. Neither the project site nor the generator tie-line, gas, or water line would involve the removal of or direct effects to the historic properties.

Develop Typologies

MREC, LLC will develop property types linked to the historical themes by which the significance of the SCVRHD is understood. The boundaries of the historic district are defined in the 1995 DPR form as the Santa Clara River to the south, the Sulphur Mountain foothills to the north, Peck Road to the east, and Wells Road to the west, including Aliso Canyon, Wheeler Canyon, O'Hara Canyon, and Adams Canyon (Stone and Triem, 1995). The period of significance for the SCVRHD falls between 1860 and 1945. The

Comment [SMD5]: This research design and survey methodology is intended to assist with the first step in considering historical resources during the environmental planning process, identification. Assessing impacts to any resources identified will depend on the forthcoming survey work.

district includes a concentration of buildings, structures, and sites related to the history of citriculture the oil industry, transportation systems, cultural institutions, and agriculture in Southern California. A number of different buildings types and architectural styles that date from the period of significance can still be found. The variety of type and style “serve to illustrate the development of agriculture as both family farming and agribusiness enterprises” (Stone and Triem, 1995).

Therefore, expected property types in the MREC PAA include:

- Buildings such as ranch headquarters, main residences, employee residences and smaller worker cottages, barns, garages, sheds, tennis courts, an adobe building, a relocated former school, office buildings, industrial and commercial buildings, guesthouses, a pool house,
- Irrigation-related features may include water towers, pumping stations, pipelines of concrete and iron, open canals, drainage ditches, headwalls, culverts, tanks, and spillways
- Transportation features in the PAA include primary roads, secondary roads, and the railroad
- Agricultural boundary structures and agricultural patterns of vegetation including orchards, windrows, row crops, and ornamental landscaping

The property type definition will specify how each type may contribute to the SCVRHD and will specify integrity criteria for the property to qualify as a contributing resource to the SCVRHD. We will also define which property types can be recorded collectively under a single site record, because they are repeated elements that lack individuality. For example, certain types of irrigation features might be recorded as a single type for a particular parcel ~~or~~ group of parcels, or historical land ownership and use instead of individually, with a map showing the locations of the individual elements that appear within the portion of the PAA that overlaps with the SCVRHD. Planted wind rows of eucalyptus trees, or other species of designed windrows, might also be recorded as a property type, with an accompanying map showing the locations of windrows that cross the PAA.

Although not related to the significance agricultural theme of the SCVRHD and outside the period of significance identified in the 1996 survey report, MREC, LLC will develop property types linked to the historical themes necessary to evaluate the historic oil pumps and wells in the Mission Rock and Edwards Ranch areas. Expected property types in the MREC PAA include:

- Petroleum industry-related structures include oil pumpjacks, wellheads, sumps, and pipelines

As with the above, we will also define which properties can be recorded collectively as a property type, because they are repeated elements that lack individuality.

Contact Property Owners

MREC, LLC will contact property owners in accordance with the “Property Owner Protocol” specified by CEC Staff and found on Page 11 of Data Request 115. The protocol calls for initial contact by certified mail, a visit to the property to request permission if there is no response to the postal contact within a week, and documentation of efforts to obtain access permission.

Prepare Survey Plan Maps

MREC, LLC will develop a comprehensive survey plan using GIS-based maps and aerial photographs that identify, prior to field work, the boundaries of key parcels and locations of buildings and structures that will be a key focus of the recording effort. The planning maps will also identify access routes such as public roads and field roads that could be used for efficient access to the properties. The scope of the study will include parcels within the MREC PAA, including the areas within one half-mile of the generator tie-line and project site. Current aerial photographs will be examined carefully to determine whether buildings or clusters of buildings previously recorded that are contributing to the SCVRHD are still standing.

Comment [SMD6]: This section needs to be expanded. Specifically, for known contributing resources:
1. Significance criteria should be identified;
2. Character defining features should be listed; and
3. Resource-specific integrity considerations should be provided.
If any information is unknown at this time (pending further research) please note that when expanding on these property typologies.

Conduct the Field Survey and Record Properties

MREC, LLC will conduct systematic field work. Depending on results of access requests, MREC, LLC will revisit those contributing resources identified during 1996 survey and the 2015 survey that are still in existence based on review of the aerial photographs described above on those parcels identified as being located within one half-mile of the MREC project site and generator tie-line route (other than those excluded by CEC Staff per Data Request 115). MREC, LLC will visit as many such parcels as feasible to search for and document resources that may contribute to the SCVRHD. Members of the field team will photograph buildings, structures, and features; prepare site sketch plans; record the location with submeter accuracy using a GPS data logger; and prepare updated Department of Parks and Recreation (DPR) primary and building/structure forms to the standards of the California Office of Historic Preservation (OHP).

The resources will be dated using archival information, construction and architectural stylistic elements, historic maps and aerials, maker's marks and types and methods of manufacture (for artifacts and features). Surveyors will be familiar with the research design and will assess the property in relation to the seven aspects of historic integrity. Vegetation types will be noted, as well as natural waterways, new land uses and construction. Intrusions of non-contributing characteristics, such as Highway 126, will also be documented.

Contributing properties to the SCVRHD will be fully evaluated and recorded on the appropriate California Department of Parks and Recreation (DPR) forms with appropriate information/detail about the setting, local vegetation and topography, and condition of the property. The parcels that are still agricultural contributors to the SCVRHD will be mapped through review of historic maps and aerials, mapping resources such as Google Earth, and field observations. Oil pumps and wells in the PAA will be recorded separately.

Property types may be recorded together for a particular property or the district. For example, all irrigation stand pipes in a given agricultural field would not be recorded individually, but as a property type for that parcel, particular parcel or, group of parcels, or historical land ownership and use.

If permission to access a property is not granted, MREC, LLC will carry out a desktop study using the historic aerials and other resources such as Google Earth to confirm if resources are extant, note changes, and adjust resource descriptions. Additionally, MREC, LLC will perform property-specific research through the Building Department, the Clerk-Recorder, and county registries for all newly recorded resources to provide full criteria evaluations.

Each recorded property will be evaluated in terms of its integrity and whether it qualifies as a contributing element to the SCVRHD and, if it is a contributor, the reason for qualification. Each resource will also be evaluated for individual eligibility for listing on the California Register of Historical Resources.

The properties will be evaluated, in particular, in regard to overall patterns of change that could affect the significance of the district and ability to illustrate and exemplify historic themes of the period of significance. This assessment will include an analysis of maps and aerial photographs and general assessment of the landscape in the vicinity of the MREC and its generator tie-line.

Deliverables

MREC, LLC will prepare and submit to CEC a technical report as a Data Request Response that includes the following elements:

- Final Design and Survey Methodology
- An updated thematic historic context for the SCVRHD based on that prepared during the original survey for the SCVRHD

Comment [SMD7]: As discussed at the Issues Resolution workshop different resources may be best recorded by parcel, while others may be best recorded using other categories.

Comment [SMD8]: As required per CEQA Guidelines 15064.5 (a)(3).

- Narrative discussion of methodology and description of properties and results
- Property owner contact and access documentation
- New and updated DPR 523 forms that document contributing features to the historic landscape, including photographs of each property or property type (for multiple type entries), along with a map showing the precise location of the property
- Maps on USGS topographic 7.5 minute (1:24,000) quadrangles which show survey area boundaries and the locations of contributing historic farm clusters, linear and landscape features and other resources including agriculturally contributing parcels. The maps will also show the MREC boundary and generator tie-line route.

Schedule

MREC, LLC anticipates that it will take up to 90 days to complete the work described in this study plan.

Comment [SMD9]: Please consider feasible means to expedite the research and survey portion of the requested information.

References

San Buenaventura Research Associates. 1996. Ventura County Cultural Heritage Survey Phase V: Western Santa Clara Valley. Ventura County Cultural Heritage Board.

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Comment [SMD10]: Per discussion at Issues Resolution workshop regarding consulting primary and secondary sources to develop thematic historic contexts.

Attachment A

Historical Context Summary

An important aspect of the SCVRHD's history is how changes in industry and land use affected the social, physical, and economic structure within the Santa Clara Valley, and how that in turn "left a distinct mark on the land" (Stone and Triem, 1995). The earliest American settlers in the Santa Clara Valley faced unique challenges associated with insufficient irrigation and transportation resources. During its early settlement history in the early to mid-nineteenth century "this thinly populated frontier region supported primarily low-intensity cattle ranching, grain production and to a limited extent the more drought-tolerant forms of fruit cultivations" (Stone and Triem, 1995). Settlers mostly grew lima beans and grains, including wheat, barley, flax, and corn. In 1862, George G. Briggs was the first person to try growing peaches and pears commercially in the western end of Santa Clara Valley; however, Briggs' attempts were largely unsuccessful (Stone and Triem, 1995).

Several important improvements to transportation and irrigation "permitted valley property owners to realize the economic potential of the local soil and climate" (Stone and Triem, 1995). These improvements included: the construction of the wharves at Hueneme and Ventura, California, in 1871 and 1872 respectively; the arrival of the Southern Pacific Railroad line in 1887; the development of the Farmer's Canal and Water Company in 1872; and the development of the Thermal Belt Water Company in 1893. New access to improved water sources and a reliable transportation system allowed farmers to replace grain crops with walnuts, olives, and apricots. However, "it was citrus ranching, in both myth and reality, which was to become thoroughly enmeshed with every aspect of the region's economy, cultural, and popular image" (Stone and Triem, 1995). Nathan W. Blanchard is remembered as the first commercial citrus planter in the western Santa Clara Valley. Since citrus trees require years after planting to produce fruit, Blanchard planted his fruit trees in 1874 but his crop did not become profitable until 1888. Citrus became an increasingly dominant crop in the area in the 1890s; "citrus cultivation progressed in successive waves, from oranges, to lemons and later, avocados, with each of these tree crops wholly or partially replacing the previous one" (Stone and Triem, 1995). New tree varieties emerged as the citrus industry in the region developed, replacing the older species. In 1893, the Limoneira Company was established and soon became the leading commercial citrus orchard in the region (Stone and Triem, 1995).

The citrus industry grew exponentially between 1920 and 1945 and California's volume of citrus production experienced a 150-percent expansion. The sudden dominance and commercial growth of the citrus industry in Southern California led to economic, social, and physical changes that established new perceptions of the area as "almost utopian" (Stone and Triem, 1995). Sometimes the perceived image of the area – "verdant 'citrus belts'" – did not match the arid reality (Stone and Triem, 1995). However, the booming fruit industry resulted in such a drastic transformation within the area that "virtually the entire urban and rural form taken on by the Southern California foothills region can reasonably be attributed directly or indirectly to citrus production" (Stone and Triem, 1995). The thriving citrus industry brought many new residents to the area, including wealthy developers who were able to invest a substantial capital into planting trees that could take years to turn a profit. These farmers and business people became known as "gentlemen farmers" since they could oversee cultivation, packaging, shipping, and marketing of the product without ever dirtying their hands (Stone and Triem, 1995). Large groups of immigrant laborers also moved to the region (Stone and Triem, 1995).

In the decades after World War II, citrus farms became appealing real estate for suburban developers. The pressure on growers to sell their land "was abetted by the 'highest and best use' scheme of property taxation in effect" that increased taxes on undeveloped farm land (Stone and Triem, 1995). In addition, trees that were planted between 1920 and 1945 became less fruitful over time and many crops started to suffer from disease. In combination, these new challenges—development pressures, higher taxes, crops in need of replanting, and infected plants—forced many growers to "remove their

Comment [SMD11]: Please include a thematic historic context on each historical theme identified in the 1996 survey report, including oil development, transportation systems, cultural institutions, and agricultural. Staff will review the thematic context along with the final survey documentation.

land from cultivation” (Stone and Triem, 1995). Consequently, during the mid-twentieth century, the citrus industry began to fade from prominence in Los Angeles, Orange, Riverside, and San Bernardino counties. Despite this, the “Santa Clara Valley of Ventura County, by virtue of geography, largely escaped these events, however, and retained its citrus landscape largely intact until the 1970s, when strict planning guidelines for the protection of agricultural areas countywide were adopted” (Stone and Triem, 1995). For this reason, “the Santa Clara Valley represents one of the best preserved examples of a mature Southern California citriculture landscape” (Stone and Triem, 1995).