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# RESPONSE TO CEC STAFF DATA REQUEST SET 1 (1-67)

Walsh Backup Generating Facility (19-SPPE-02)

SUBMITTED TO: CALIFORNIA ENERGY COMMISSION

SUBMITTED BY: **651 Walsh Partners, LLC**

August 2019



**WP, LLC'S RESPONSES TO CEC DATA REQUEST SET 1 (1-67)  
WALSH BACKUP GENERATING FACILITY (19-SPPE-02)**

**INTRODUCTION**

Attached are 651 Walsh Partner, LLC's (WP, LLC) responses to California Energy Commission (CEC) Staff Data Request Set No. 1 (1-67) for the Walsh Backup Generation Facility (MBGF) Application for Small Power Plant Exemption (SPPE) (19-SPPE-02). Staff issued Data Request Set No. 1 (1-67) on August 8, 2019.

The Data Responses are grouped by individual discipline or topic area. Within each discipline area, the responses are presented in the same order as Staff presented them and are keyed to the Data Request numbers (1-67). Additional tables, figures, or documents submitted in response to a data request (e.g., supporting data, stand-alone documents such as plans, folding graphics, etc.) are found at the end each data response and are not sequentially page-numbered consistently with the remainder of this document, although they may have their own internal page numbering system.

For context the text of the Background and Data Request precede each Data Response.

**GENERAL OBJECTIONS**

WP, LLC objects to all data requests that require analysis beyond which is necessary to comply with the California Environmental Quality Act (CEQA) or which requires WP, LLC to provide data that is in the control of third parties and not reasonably available to WP, LLC. Notwithstanding this objection, WP, LLC has worked diligently to provide these responses swiftly to allow the CEC Staff to prepare the Initial Study/Mitigated Negative Declaration (IS/MND).

## **AIR QUALITY**

### **BACKGROUND AIR QUALITY APPLICATION TO THE AIR DISTRICT**

*The proposed Walsh Data Center (WDC or Project) will require a permit from the Bay Area Air Quality Management District (District or BAAQMD). Therefore, staff will need copies of all correspondence between the applicant and the District in a timely manner in order to stay up to date on any issues that arise prior to completion of the initial study.*

### **DATA REQUEST**

1. Please provide copies of all substantive District correspondence regarding the application to the District, including application and e-mails, within one week of submittal or receipt. This request is in effect until staff publishes the initial study.

### **RESPONSE TO DATA REQUEST 1**

WP, LLC will supply the CEC staff with all substantive correspondence with the BAAQMD concerning the Walsh Backup Generating Facility application for permits for the generators.

However, WP, LLC does not believe that the CEC Staff need any correspondence in order to complete its initial study for the generators. While WP, LLC acknowledges that the initial study will address the potential impacts of the Walsh Data Center, the CEC's ultimate decision is whether the WBGF can qualify for a Small Power Plant Exemption (SPPE). Unlike the case where the CEC is considering a thermal power plant that could not qualify for a SPPE, where the BAAQMD would be preparing Preliminary and Final Determinations of Compliance that must be incorporated into the Staff Assessments, the CEC Staff can and should complete its CEQA analysis independent of the BAAQMD processing of the generator permit applications, because such input from the BAAQMD is unnecessary.

### **BACKGROUND CONSTRUCTION AND OPERATION EMISSION CALCULATIONS**

*The small power plant exemption (SPPE) application appendices AQ1 (Emissions Support Data), AQ3 (Modeling Support Data), and AQ4 (Construction Emissions) are used to document emissions calculations. Staff needs the spreadsheet files of the emission estimates with live, embedded calculations to complete the review.*

### **DATA REQUEST**

2. Please provide the spreadsheet versions of the worksheets in appendices AQ1, AQ3, and AQ4 with the embedded calculations live and intact.

## **RESPONSE TO DATA REQUEST 2**

The spreadsheet versions for Appendices AQ1 and AQ3 are supplied on a CD which will be delivered under separate cover. These versions are unlocked for CEC staff use only and they show all embedded calculations and formulas. Appendix AQ4 does not have any associated spreadsheet calculations. Construction emissions were estimated by Illingworth and Rodkin using CalEEMod for the existing land use configuration as well as estimated construction emissions. Included in previously submitted Appendix AQ4 is a summary sheet used by Illingworth and Rodkin to gather input data for the CalEEMod analysis (but this summary sheet does not contain any calculations, etc.).

## **BACKGROUND CONSTRUCTION IMPACTS ANALYSIS**

*The applicant provided ground-level impacts analysis for criteria pollutants during operation of the project. However, the applicant did not provide ground-level impacts analysis for criteria pollutants during construction of the project, including the demolition of existing buildings and construction of the proposed WDC. Staff needs a construction modeling analysis or justification for not doing modeling analysis for criteria pollutants during construction, to complete the staff analysis for construction air quality impacts.*

## **DATA REQUESTS**

3. Please justify why ground-level impacts analysis was not done for criteria pollutants during construction of the project

## **RESPONSE TO DATA REQUEST 3**

Following the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines (May 2017), construction impacts are assessed based on the daily and annual emissions scenarios which are compared to the CEQA significance thresholds. These significance thresholds were created by the BAAQMD which is the expert and lead agency for air quality permits (not subject to CEC jurisdiction) for the entire Bay Area of California. Cities and Counties, including the City of Santa Clara, routinely use these significance thresholds when conducting the same CEQA analysis currently conducted by the CEC. As discussed above, since the Commission is conducting a CEQA analysis only, it should rely on the published CEQA significant thresholds adopted by the lead air permitting agency with jurisdiction over the WBGF and WDC activities.

Additionally, according to the BAAQMD CEQA significant thresholds, impacts to health risk are assessed only if sensitive receptors are located within 1,000 feet of the project location.

The project construction emissions were less than the BAAQMD CEQA significance thresholds and in addition, there were no sensitive receptors within 1,000 feet of the project site (closest sensitive receptor is 3,300 feet distant). Therefore, utilizing the BAAQMD CEQA Guidelines, the project construction related impacts were less than significant and no further modeling is necessary.

4. Please provide ground-level impacts analysis for criteria pollutants during construction of the project to show compliance with the California Ambient Air Quality Standards and the National Ambient Air Quality Standards

#### **RESPONSE TO DATA REQUEST 4**

As described above in Response to Data Request 3, the Commission should rely on the BAAQMD CEQA significance thresholds in its analysis in the same manner as the lead agencies within the BAAQMD. However, we have undertaken a modeling analysis responsive to this request. Our undertaking of this modeling analysis should not be used by Staff to justify any delay in preparing and publishing its Initial Study/Mitigated Negative Declaration because it can do so without the analysis as discussed in our Response to Data Request 4.

#### **Modeling Techniques and Inputs**

Ambient air quality impacts from emissions of criteria pollutants during the construction of Walsh Backup Generating Facility (WBGF), which supports the Walsh Data Center (WDC), were estimated using an air quality dispersion modeling analysis. The modeling analysis considers the construction site location, the surrounding topography, and the sources of emissions during construction, including vehicle and equipment exhaust emissions and fugitive dust.

The same background ambient air quality levels and modeling techniques from the modeling analyses of project operating impacts were used in the construction analysis. The applicable background concentrations of NO<sub>2</sub>, SO<sub>2</sub>, CO, PM<sub>2.5</sub>, and PM<sub>10</sub> from the operational modeling analyses used in the construction impact analysis are shown in the following table. The USEPA-approved model AERMOD (version 18081) was used to estimate ambient impacts from construction activities, consistent with the facility operational impact analyses and the version of AERMET (version 18081) used by BAAQMD to process the meteorological data from the San Jose and Oakland Airports. A detailed discussion of the AERMOD dispersion model and the associated processing programs AERSURFACE, AERMET, and AERMAP is included with the discussion of the modeling analyses of project operating impacts. As with the operational impact analysis, the meteorological data were processed by BAAQMD in accordance with USEPA guidance using the new USEPA default option U\*.

The emission sources for the construction site were grouped into two categories: exhaust emissions and dust emissions. Combustion equipment exhaust emissions were modeled as thirty-four (34) 3.048 meter high point sources (exhaust parameters of 750 Kelvins, 64.681 m/s exit velocity, and 0.1524 meter stack diameter) placed at regular 30-meter intervals around the construction area. Construction fugitive dust emissions were modeled as an area source covering the construction area with an effective plume height of 0.5 meters. Combustion and fugitive emissions were assumed to occur for 10 hours/day (7 AM to 5 PM) consistent with the expected period of onsite construction activities generating both exhaust emissions and fugitive dust. The construction impacts modeling analysis generally used the same receptor locations and meteorological data as used for the project operating impact analysis. The only exception was that only the 20-meter fenceline and downwash receptor grids were modeled since maximum impacts will occur in the immediate project vicinity (which was verified after the modeling analysis was performed). A detailed discussion of the receptor locations and meteorological data is included with the discussion of the modeling analyses of project operating impacts.

### **Modeling Results**

Based on the emission rates of NO<sub>x</sub>, SO<sub>2</sub>, CO, PM2.5, and PM10, the modeling options, receptor grids, and meteorological data, AERMOD calculates short-term and annual ambient impacts for each pollutant. As mentioned above, the modeled 1-hour, 3-hour 8-hour, and 24-hour ambient impacts are based on the worst-case daily emission rates of NO<sub>x</sub>, SO<sub>2</sub>, CO, PM2.5, and PM10 spread over the estimated daily hours of operation. The annual impacts are based on the annual emission rates of these pollutants. The annual average concentrations of NO<sub>2</sub> were computed conservatively assuming 100% conversion of NO<sub>x</sub> to NO<sub>2</sub>. Overall maximum impacts for all short-term averaging times are shown (no special processing for the NAAQS based on 5-year averages of the daily maximum 98<sup>th</sup> or 99<sup>th</sup> percentile concentrations was performed).

The modeling analysis results are shown in the table below, including the appropriate background levels and the resulting total ambient impacts. Modeled construction impacts due to facility emissions alone for all pollutants are expected to be below the most stringent state and Federal standards.

<b>MODELED MAXIMUM CONSTRUCTION IMPACTS</b>						
<b>Pollutant</b>	<b>Averaging Time</b>	<b>Maximum Construction Impacts (µg/m<sup>3</sup>)</b>	<b>Background (µg/m<sup>3</sup>)</b>	<b>Total Impact (µg/m<sup>3</sup>)</b>	<b>State Standards (µg/m<sup>3</sup>)</b>	<b>Federal Standards (µg/m<sup>3</sup>)</b>
NO <sub>2</sub>	1-hour	29.0	128	157	339	-
	1-hour	29.0	85	114	-	188
	Annual	1.7	24.5	26.1	57	100
SO <sub>2</sub>	1-hour	0.007	9.4	9.4	655	196
	3-hour	0.005	9.4	9.4	-	1300
	24-hour	0.002	2.9	2.9	105	365
	Annual	0.0004	0.8	0.8	-	80
CO	1-hour	10.6	2,748	2,759	23,000	40,000
	8-hour	5.0	2,061	2,066	10,000	10,000
PM <sub>10</sub>	24-hour	6.2	70	76.2	50	150
	Annual <sup>a</sup>	1.5	22	23.5	20	-
PM <sub>2.5</sub>	24-hour	1.9	27	28.9	-	35
	Annual <sup>a</sup>	0.5	10	10.5	12	12.0
Notes: <sup>a</sup> Maximum Annual Arithmetic Mean.						

Maximum modeled ambient concentrations, when added to background concentrations, are all less than the applicable NAAQS/CAAQS except for PM<sub>10</sub>. Total (modeled plus background) concentrations only exceed the PM<sub>10</sub> CAAQS since the background concentrations already exceed the CAAQS. Modeled construction particulate impacts shown above are typical in comparison to the modeling results for most construction projects; actual impacts for construction sites that use good dust suppression techniques and low-emitting vehicles would not be expected to cause exceedances of air quality particulate standards. The input and output modeling files are being provided electronically to the appropriate agencies.

***BACKGROUND CUMULATIVE AIR QUALITY IMPACTS***

*The application does not include a complete cumulative air quality modeling analysis. The cumulative analysis should include all reasonably foreseeable new projects with a potential to emit 5 tons per year or more and located within a 6-mile radius of WDC. This includes all projects that have received construction permits but are not yet operational and those that are either in the permitting process or can be expected to be in permitting in the near future.*

*A complete cumulative impacts analysis should identify all existing and planned stationary sources that affect the baseline conditions and consider them in the modeling effort. Staff needs a cumulative modeling analysis, or additional justification why an air*



*quality cumulative modeling analysis is not needed for this project, to complete the staff analysis for cumulative air quality impacts.*

**DATA REQUESTS**

5. Please justify why cumulative impact analysis was not done for the project

**RESPONSE TO DATA REQUEST 5**

The BAAQMD has not yet provided a list of sources that could be used in the cumulative analysis.

6. Please provide a list from the District of existing and planned cumulative sources located within 6 miles of the project site.

**RESPONSE TO DATA REQUEST 6**

Once the cumulative source list is provided by the BAAQMD, the list will be provided to the CEC, with recommendations which sources, if any, should be included in a cumulative modeling assessment.

7. Please provide the list of sources to be considered in the cumulative air quality impact analysis.

**RESPONSE TO DATA REQUEST 7**

Please see Response to Data Requests 5 and 6.

8. Please provide the cumulative impact modeling analysis, including WDC and other identified new and planned projects within 6 miles of the WDC site.

**RESPONSE TO DATA REQUEST 8**

Once the cumulative source list is provided by the BAAQMD and after review of the list by CEC staff, a cumulative modeling assessment will be made for the WBGF.

***BACKGROUND NOX EMISSION OFFSETS***

*Table 4 3-13 on page 60 of the application shows that the annual oxides of nitrogen (NOx) emissions of the project would be 19.57 tons per year (tpy), based upon operating WDC up to 50 hours per year of non-emergency operation. The application states that NOx emissions will be fully offset through the participation in the BAAQMD minor source offset bank or through the purchase of emission reduction credits. Staff needs to understand how the applicant would get any required offsets. If the project's NOx potential to emit (PTE) could be limited to 35 tpy, the project should qualify for*

*offsets provided from the BAAQMD's Small Facility Banking Account according to BAAQMD Rule 2-2-302. However, according to BAQMMD "Policy Calculating Potential to Emit for Emergency Backup Power Generators", when determining PTE for an emergency backup power generator, the District shall include emissions resulting from emergency operation of 100 hours per year, in addition to the permitted limit for reliability-related and testing operation.*

#### **DATA REQUESTS**

9. Please discuss whether the project's NOx PTE, including emissions resulting from emergency operation of 100 hours, could be limited to 35 tpy, so that it may qualify for offsets provided from the BAAQMD's Small Facility Banking Account.

#### **RESPONSE TO DATA REQUEST 9**

The project emissions, based on the hypothetical emergency operation of 100 hours per year are not subject to the BAAQMD offset requirements. As per the June 3<sup>rd</sup>, 2019 Policy Guideline, the assumption of 100 hours per year of emergency operation are only used to assess the applicability of the BAAQMD permitting regulations such as New Source Review and Title V. It is not used to determine the amount of emission offsets needed. Therefore, there is no requirement in the policy or the District Rules that the 100 hour per year emergency operation be required to obtain offsets.

10. Please provide evidence showing that the NOx emissions of the project would be offset if WDC does not qualify for offsets provided from the BAAQMD's Small Facility Banking Account.

#### **RESPONSE TO DATA REQUEST 10**

The project emissions of NOx at 34.2 tpy are less than 35 tpy, so technically, the project would qualify for the Small Facility Banking Account. If offsets are not available from the Small Facility Banking Account, then WP, LLC will work with a broker to obtain the needed emission reduction credits. At this time, there are ample credits within the BAAQMD that are available for purchase.

#### ***BACKGROUND BUILDING SERVER ROOMS COOLING***

*The applicant indicates that the data center to house the servers requires electricity and 24 hour cooling to operate. The largest of the building loads is the mechanical systems to provide cooling for the server rooms.*

#### **DATA REQUESTS**

11. Please describe the cooling system in detail and identify if the cooling system consumes water.

## **RESPONSE TO DATA REQUEST 11**

The cooling system uses air cooled chillers with a wetted media. Water will be used only on days above design temperatures through use of an economizer. Total water used for the WDC (including potable, landscaping, and use of the economizer) is estimated to be 25.6 acre feet per year.

12. Please evaluate whether the cooling system would generate PM emissions and calculate the emissions.

## **RESPONSE TO DATA REQUEST 12**

There will be negligible emissions of particulate matter (PM) from the operation of the economizer as it will operate infrequently.

## **CULTURAL AND TRIBAL CULTURAL RESOURCES**

### ***BACKGROUND***

*The application (DJP 2019 Appendix C-1) references a series of historical maps and aerial photographs used for the analysis provided in the Phase I Environmental Site Assessment (ESA) (Rosso 2016). Copies of these maps and aerial photographs were not included in the ESA. Cultural resources staff needs to understand the history and development of the project site for the purpose of analyzing the project and potential impacts to the environment under the California Environmental Quality Act (CEQA)*

### **DATA REQUESTS**

Please provide the following:

13. Copies of the 1961 and 1966 Sanborn Fire Insurance maps (Rosso2016 8-9)

#### **RESPONSE TO DATA REQUEST 13**

See Appendix CRDR-13.

14. Copies of the 1939, 1948, 1950, 1956, 1963, 1968, 1974, 1982, 1993, and 1998 aerial photographs (Rosso 2016 9-11)

#### **RESPONSE TO DATA REQUEST 14**

See Appendix CRDR-14.

15. Copies of the 1889, 1897/1899, 1953, 1961, 1968, 1973, 1980, and 2012 USGS 7 5-minute series topographic maps (Rosso 2016 11-13)

#### **RESPONSE TO DATA REQUEST 15**

See Appendix CRDR-15.

### ***BACKGROUND***

*The application and associated cultural resources technical report (DJP 2019, Psota 2018) do not include copies of the reports and records acquired from the Northwest Information Center (NWIC), a formal evaluation of the existing buildings on the property slated for demolition, or a survey of adjoining properties containing built environment resources 45 years or older. This information is needed for cultural resources staff's independent analysis of the project and its potential for impacts to the environment under CEQA.*

## **DATA REQUESTS**

Please provide the following

16. Copies of the reports and records acquired from the NWIC, identified as follows
  - a. Cartier (1980)
  - b. Kaijankoski et al (2012)
  - c. Leventhal et al (1990)
  - d. Nadolski and St Clair (2002)

### **RESPONSE TO DATA REQUESTS 16**

The documents identified in Data Request 16 were docketed with the Commission on August 22, 2019 pursuant to a Request For Confidential Designation.

17. Results of a built environment survey completed within the last five years inclusive of the project site, extending to no less than one parcel's distance from all proposed Walsh Data Center site boundaries, and a windshield survey conducted along all proposed linear routes to identify all buildings, districts, structures, sites, or objects that are 45 years or older. Those properties identified as 45 years or older shall be documented and evaluated on Department of Parks and Recreation (DPR) 523(A) forms and appropriate DPR 523 detail forms. A technical report summarizing this information shall be included with the data response.

### **RESPONSE TO DATA REQUEST 17**

A technical report is being prepared to respond to this data request and will be provided to the CEC upon completion. A qualified historian will complete a report analyzing structures on the site and adjacent properties for historical significance. For any buildings over 45 years old, the historian will determine historical significance through a qualitative analysis relying on available information and site observations. Where historical significance cannot be determined through this method, the historian will complete DPR forms. The findings of the historian's analysis will be summarized in the technical report and submitted under separate cover by September 20, 2019.

## LAND USE

### **BACKGROUND: LOT COVERAGE**

*The application states on Figure 2-1 Site Plan, under Lot Data, that lot coverage is 32.4 percent, but it does not state the building footprint square footage to substantiate the lot coverage calculation.*

### **DATA REQUEST**

18. Please provide the square footage of all the structures used to calculate lot coverage, including the building footprints of the four-story Data Center Building and the attached three-story Power Base Building, and ensure that the lot coverage calculation meets the City's definition of lot coverage, which is "the area of a lot occupied by the principal structure or structures and accessory structures" (COSC2019).

### **RESPONSE TO DATA REQUEST 18**

Lot coverage was calculated based on the overall square footage of the proposed WDC structure, which is 435,050 sf. The WDC consists of one building with two attached components, the Data Center Building and the Power Base Building. The building footprint of the WDC is 112,171 sf. The lot coverage calculation was completed based on the City's definition of lot coverage.

### **BACKGROUND: FLOOR AREA RATIO**

*The application states that the project would include construction of a 435,050 square-foot data center building, but at times it refers to the Walsh Data Center as including two buildings, the four-story Data Center Building and the attached three-story Power Base Building.*

### **DATA REQUEST**

19. Please confirm whether or not the floor area square footage provided in the application includes both the four-story Data Center Building and the three-story Power Base Building and provide the floor area square footage for both buildings.

### **RESPONSE TO DATA REQUEST 19**

The floor area square footage provided in the application includes both the four-story Data Center Building and the attached three-story Power Base Building, which together constitute the WDC. The square footage of the WDC is 435,050.

## **POPULATION AND HOUSING**

### **BACKGROUND PROJECT CONSTRUCTION**

*Staff needs to know more about the construction of the WDC and Walsh Backup Generator Facility (WBGF), including infrastructure. The SPPE application notes on page 15 that construction of the WBGF would take 6 months and require 10-15 construction workers including one crane operator. The SPPE application notes on pages 15 and 16 that WDC is to take 19 months with construction to begin in October 2019, but there is no indication of the number of construction workers necessary for this part of the project. There is also no overall project schedule and description of the phasing of project activities. The schedule and phasing are necessary for staff to understand how the project components would be constructed over time. Staff has the following associated questions and requests.*

### **DATA REQUESTS**

20. What is the estimated number of project construction workers during peak activities and on average?
- Please provide an overall construction workforce number (peak and average).

#### **RESPONSE TO DATA REQUEST 20 a.**

WP, LLC is developing this information and will provide it to the CEC by August 30, 2019.

- Please provide a construction workforce number (peak and average) for the WDC and WBGF, individually.

#### **RESPONSE TO DATA REQUEST 20 b.**

WP, LLC is developing this information and will provide it to the CEC by August 30, 2019.

21. Are there any construction activities for the WDC and WBGF that would not be sequential and instead overlap with other activities?
- Please provide an overall project construction schedule and a schedule for construction of the WDC and WBGF, individually.

#### **RESPONSE TO DATA REQUEST 21 a.**

WP, LLC is developing this information and will provide it to the CEC by August 30, 2019.

- b Please explain how the other associated activities, such as project site demolition and cleanup, are incorporated into components of the project (e.g. WDC and WBGF). Please explain if and how the schedule and number of workers would overlap.

**RESPONSE TO DATA REQUEST 21 b.**

WP, LLC is developing this information and will provide it to the CEC by August 30, 2019.

- 22. Construction of the generator yard is listed as part of the construction activities of both the WDC and the WBGF. Please clarify whether or not the workforce and the schedule for construction of the generator yard would be captured in the WDC or WBGF workforce and schedule.

**RESPONSE TO DATA REQUEST 22**

WP, LLC is developing this information and will provide it to the CEC by August 30, 2019.

**BACKGROUND PROJECT CONSTRUCTION AND OPERATION WORKFORCE**

*Staff needs to know about the assumptions used for the construction and operations workforce for the project (WDC and WBGF). No assumptions were discussed in the SPPE application.*

**DATA REQUESTS**

- 23. From where are the project construction and operation workforce estimate to be derived- locally within the Greater Bay Area or non-locally (beyond a two-hour commute of the project site)?

**RESPONSE TO DATA REQUEST 23**

WP, LLC requested information from the Building and Trades Council representative and was assured that all of the construction workers for the WDC and the WBGF would be sourced locally within the Greater Bay Area. All of the WDC operation workers are also anticipated to be derived locally within the Greater Bay Area.

- 24. What portion of the construction and operation workforce does the applicant anticipate would be local and what portion would be non-local?

**RESPONSE TO DATA REQUEST 24**

See Response to Data Request 23.



## **PROJECT DESCRIPTION**

### **BACKGROUND STORMWATER CONTROLS**

*According to the SPPE application on page 17, the existing storm water lift station structure on the southwest corner of the project site would be removed and a new storm water lift station structure, piping, and pump would be provided to transport storm water from the site drainage system to the existing storm water main on Walsh Avenue. Figure 2-1 presents a site plan for the project, however, the location of the new storm water lift station structure, piping and pump are not marked on the plan.*

### **DATA REQUEST**

25. Please update Figure 2-1 to note the location of the new storm water structure, piping, and pump.

### **RESPONSE TO DATA REQUEST 25**

The new storm water structure, piping and pump are shown on Drawing L-201, Land scape Plan, included in Appendix PDDR-25.

### **BACKGROUND SILICON VALLEY POWER (SVP) ELECTRICAL FACILITIES**

*Page 17 of the SPPE application notes that the applicant would construct a new distribution substation to support the WDC and the substation would be ultimately owned and operated by SVP as part of its distribution network.*

*According to the SPPE application, while SVP has not designed the 60-kV transmission lines that would come into the project site, it estimates that one line would come from the north and one would come in from the south with both routes paralleling the existing Union Pacific Railroad (UPRR) rail lines. In addition, there may be up to six new transmission poles installed. Staff has the following questions and requests to better understand the connection of the project site to the SVP electrical facilities.*

### **DATA REQUESTS**

26. How would the construction of the transmission lines and poles connecting the project site to the SVP electric system fit in the overall project schedule and construction workforce numbers?

### **RESPONSE TO DATA REQUEST 26**

Work beyond the distribution substation will be designed, engineered and constructed by Silicon Valley Power (SVP). While WP, LLC has been engaging in discussions with

SVP, SVP has not presented a plan that would be responsive to this data request. WP, LLC will provide the specific information listed in this data request when available. However, if the CEC Staff believes the information is necessary to evaluate the potential for environmental impacts and prepare its IS/MND, a reasonable estimate is that SVP's transmission work would be performed in the latter half of the construction schedule, would take approximately 6 months, and would involve up to 20 construction workers.

27. The site plan presented in the SPPE application as Figure 2-1 does not indicate where the transmission lines would connect with the project site or the exact locations of the transmission poles. Please update the site plan to show where these lines would connect, and to show the locations of the transmission poles.

**RESPONSE TO DATA REQUEST 27**

Please see Overall Utility Plan in Appendix PDDR-27 which shows the preliminary design of SVP's proposed interconnection of its system to the new on-site distribution substation. The locations of the new poles have not yet been determined.

28. When would the transmission line work take place in the overall project schedule?

**RESPONSE TO DATA REQUEST 28**

As discussed in Response to Data Request 27, SVP will undertake all of this work to its system. A reasonable assumption is that the work will take place during the latter half of the construction of the WDC since the WDC could not become operational until SVP can energize the distribution substation.

29. Please include the number of construction workers necessary into the overall project construction workforce count (peak and average)

**RESPONSE TO DATA REQUEST 29**

See Response to Data Request 28. A reasonable assumption for SVP's transmission work has been included in the construction workforce count provided in Response to Data Request 20.

30. UPRR expressed concerns about another project when a new transmission line was proposed to parallel UPRR's rail lines. Has UPRR reviewed the project and if so, please provide a copy of any comments. If UPRR has not reviewed the project, please consult with UPRR on the planned transmission lines connecting to the project site and provide staff a copy of any comments.

### **RESPONSE TO DATA REQUEST 30**

WP, LLC is not aware of whether UPRR has reviewed any of the notices prepared and sent by the Commission. WP, LLC is not constructing and will not own or operate SVP's transmission lines. SVP is the utility and therefore any discussions of SVP's transmission system modifications, if any, should take place between UPRR and SVP. This request assumes that Staff has jurisdiction in the same manner as it has over transmission components associated with a generating facility that creates additional electricity and transmits it over a new transmission line through a new electric transmission substation. That is not the case. The substation that will be constructed is a new distribution substation that will receive electricity and therefore, the Commission should not compare the WDC's use of electricity to new electricity being generated from a new source and then transmitted through transmission lines and a transmission substation over which the Commission would have permitting jurisdiction.

31. What is the estimated height (both above and below grade) of the tubular steel transmission poles and the diameter at ground level?

### **RESPONSE TO DATA REQUEST 31**

SVP has not designed the substation or transmission line work yet, but has provided drawings of typical transmission poles that are likely to be used. See Appendix PDDR-31.

### **BACKGROUND TRANSMISSION AND INTERCONNECTION**

*Section 2.0 (Project Description) of the SPPE application indicates that the WDC includes an onsite 60-kV substation with an electrical supply line that would connect to an SVP 60- kV line. Understanding the proposed interconnection to SVP would assist staff in determining the likelihood that the back-up generators would be operated and thus any potential impacts on the environment from their operation. Staff needs more detailed information on the 60-kV substation, 60-kV interconnection line, and transmission poles than was provided in the Project Description section.*

### **DATA REQUESTS**

32. Please provide the name(s) of the existing SVP 60-kV line(s) that would supply power to the WDC.

## RESPONSE TO DATA REQUEST 32

The WDC will be served by a new substation designated by SVP as the Laurelwood Substation. SVP has provided the following information about the Laurelwood Substation<sup>1</sup>.

The Laurelwood Substation is a three-50MV A (60kV:12kV) transformer bank substation on SVP's 60kv South Loop. It is located between SVP's 115kV Kifer Receiving Station (KRS), and 60kV substation, CCA. Each Transformer has a rating of 30/40/50 MVA, IEEE max temperature rise of 65 C, increases the capability by 10% or 33/44/56 MVA. The final buildout of Laurelwood substation will have a capability of 100 MVA, with 150 MVA of installed capacity which increases its reliability.

The Interconnection points to SVP will be the three low-side transformer gang switches currently drafted as GS30, GS20, and GS10.

There are four 60kV Breakers at Laurelwood, CB12, CB22, CB32 and CB42 which will enable various isolation schemes to insure a transformer bank can be isolated while the other two transformers remain in service. The system is designed such that one of the transformers can be taken out of service for repairs or maintenance while the other two can fully support customer load.

SVP's South Loop is fed from the Kifer Receiving Station (KRS) and Scott Receiving Station (SRS). Both KRS and SRS are 115/60 kV receiving stations. SRS is connected to SVP's Northern Receiving Station (NRS) with two feeds and the Duane Substation (DUA). KRS is connected to our Duane (DUA) Substation and PG&E's Newark Substation (NEW) and PG&E's FMC Substation. These connections are at 115kV. The DUA Substation is connected to the City's 147 MW Donald Von Raesfeld Combined Cycle Power Plant. Both SRS and KRS have two 115/60kV transformers for redundancy and reliability. This arrangement allows for a high reliability electrical system.

The 60kV loop is designed to maintain power to all customers when any line on the loop is out of service due to either maintenance or an unplanned outage. Each Receiving Station on the loop ends, SRS and KRS, is capable of delivering power to the entire loop. The full redundancy design of the system allows any line segment on the loop to

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<sup>1</sup> It appears that Staff requested information from SVP regarding the substation that would serve the Laurelwood Data Center Project, which is currently before the Commission seeking a Small Power Plant Exemption (19-SPPE-01). SVP responded to those questions about the Laurelwood Substation, which does not serve the Laurelwood Data Center, but would serve the Walsh Data Center. Those responses were docketed in the Laurelwood SPPE docket (TN229381). We have included those responses in Appendix PDDR-43 of these responses, as they address the substation which will serve the WDC.

be taken out of service for regular maintenance activities without causing a service interruption to any customers. Additionally, the protection systems on the loop are designed to detect fault conditions and isolate the fault to a single line segment. The isolation of the fault allows for continuous service for all customers during fault conditions.

33. Please describe the interconnection to the SVP system. Is the WDC connecting through a single radial 60-kV line? Is the connection through a looped system where either of two connections could supply 100 percent of the WDC site load?

**RESPONSE TO DATA REQUEST 33**

Please see Response to Data Request 32.

34. Please provide a one-line diagram showing how the WDC would be connected to the existing SVP system. Please label the name of the lines and provide the line voltages.

**RESPONSE TO DATA REQUEST 34**

A one-line diagram of the Laurelwood Substation that will serve the WDC is included in Appendix PDDR-34.

35. Please provide a one-line diagram showing the existing SVP system lines above 60 kV. Please provide the names and voltages of the transmission facilities.

**RESPONSE TO DATA REQUEST 35**

Please see Appendix PDDR-43.

36. Please provide a complete one-line diagram for the new 60-kV WDC substation. Show all equipment ratings including bay arrangement of the breakers, disconnect switches, buses, redundant transformers or equipment, etc. that would be required for interconnection of the WDC project.

**RESPONSE TO DATA REQUEST 36**

Please see Appendix PDDR-34.

37. Please provide the conductor name, current carrying capacity in Ampere, and conductor size for the transmission lines that would be required for interconnecting the WDC to the SVP 60-kV system.

### **RESPONSE TO DATA REQUEST 37**

Please see Appendix PDDR-43.

38. Please provide the pole configurations that would be used to support the transmission lines from the SVP 60-kV system to the WDC. Show proposed pole structure configurations and measurements.

### **RESPONSE TO DATA REQUEST 38**

Please see Response to Data Request 31 and Appendix PDDR-31.

39. Please provide a map showing the proposed transmission line route.

### **RESPONSE TO DATA REQUEST 39**

Please see Appendix PDDR-27.

40. Please provide the expected frequency of outage of the 60-kV system that would serve the WDC.

### **RESPONSE TO DATA REQUEST 40**

WP, LLC does not have access to this information and has forwarded the request to SVP for a response. We understand that this data request may have been drafted prior to SVP providing information in the Laurelwood SPPE Application docket.

Please see Appendix PDDR-43.

41. Please identify all other data centers using the 60-kV line and loop proposed to interconnect to WDC.

### **RESPONSE TO DATA REQUEST 41**

WP, LLC does not have access to this information and has forwarded the request to SVP for a response. We understand that this data request may have been drafted prior to SVP providing information in the Laurelwood SPPE Application docket.

Please see Appendix PDDR-43.

42. If there are any other data centers on the 60-kV line that WDC proposes to interconnect to, have any of the data centers experienced an SVP power supply outage(s)?

- a. What was the cause, duration, recovery process from the outage(s)?

- b. Are there breakers on the 60 kV line or disconnect switch(es) and did they isolate the faults?
- c. What was the response to the outage(s) by the data centers to the outage (i.e., initiated operation of some or all back up generation equipment, data off-shoring, data center planned shutdown, etc)?

**RESPONSE TO DATA REQUEST 42**

WP, LLC does not have access to this information and has forwarded the request to SVP for a response. We understand that this data request may have been drafted prior to SVP providing information in the Laurelwood SPPE Application docket.

Please see Appendix PDDR-43.

**BACKGROUND GRID POWER OUTAGES AND DATA CENTER EMERGENCY GENERATOR OPERATIONS**

*Because emergency operations and the outages that instigate them are rare events, there is limited information and examples of the operational protocol of the backup diesel generators during grid power loss at data centers. Staff is aware of just two power outages in the Santa Clara region and the Silicon Valley Power (SVP) grid that resulted in the activation of local data center's backup diesel generators. Other power outages appear to have not resulted in data center emergency operations.*

*One May 28 and 29, 2016 SVP outage resulted in emergency generator operation at the Vantage Santa Clara data center. Information about the impacts of the outage on the operation of the Vantage Santa Clara data center backup generators will assist staff in understanding what can be expected in the context of the Walsh project and other adjacent data centers and ultimately better inform the California Energy Commission and public regarding what data center emergency operations entail.*

*Another outage on the SVP system occurred on December 2, 2016. We have limited information on how this outage affected local data centers, if any.*

**DATA REQUESTS**

- 43. Please describe the events that resulted in the Vantage Santa Clara Campus operating the diesel-fueled backup engines on May 28 and 29, 2016. Please describe the Vantage Santa Clara Campus connection to the SVP grid.

**RESPONSE TO DATA REQUEST 43**

Data Requests 43 through 51 require information that is within the complete control of either Vantage Data Centers Inc. or SVP. WP, LLC does not have access to the information and on that basis objects and is unable to provide answers to Data Request

43 through 51. WP, LLC understands that SVP has provided responses to Staff questions in the Laurelwood SPPE docket. Many of those responses may be helpful to Staff and are included as Appendix PDDR-43 so that they can be included in the WBGF docket.

SVP's responses and Staff data requests illustrate that it is impossible to predict with any reasonable certainty;

- The cause of a future emergency;
- Whether such a future emergency would result in a loss of electricity delivered to the WDC;
- Whether the loss of electricity be total and require the WBGF to operate in such a way as to require the WBGF to generate electricity to replace the total demand of the WDC; and
- How long the emergency would cause a loss of electricity at the WDC; and
- Whether the emergency that causes a loss of electricity at the WDC would affect other data centers

These uncertainties are impossible to predict, and therefore Staff and others are required to engage in sheer speculation on every assumption to try and predict the frequency, magnitude, timing, and response to an electrical emergency that would require the WBGF to generate electricity for the WDC. CEQA prohibits such speculation. Therefore, WP, LLC believes that Staff has enough information to show that emergencies that require data centers to operate emergency backup generators are extremely rare within SVP's service territory. This fact combined with the prohibition on speculation is sufficient for Staff to include a general discussion in its IS/MND and conclude that no other analysis or potential effects during an emergency can, nor should be performed.

44. Are you aware of any other data centers that lost SVP power and operated their diesel-fueled backup generators?

#### **RESPONSE TO DATA REQUEST 44**

See Response to Data Request 43.

45. Why, during the May 28 and 29, 2016 outage--which has been described as an approximately 12 hour outage--did two engine gensets operate for approximately 7 hours and four engine gensets operate for approximately 19 hours? Note that SVP describes the outage as lasting 7 hours 23 minutes from late on the 28 to early on the 29.



## **RESPONSE TO DATA REQUEST 45**

See Response to Data Request 43.

46. TN 224450 "Vantage Data Center's Responses to CEC Data Requests" filed in the McLaren Data Center proceeding (17-SPPE-01) states in Attachment A, Table 2 "Emergency Run Events at Campus" [relevant pages attached] that Sources S-17 and S- 19 ran for 7 hours each
- a What was the start time for each genset, and what was the end time?
  - b What was the load point for each genset?
  - c What type of load was served by each genset?
  - d If Vantage Santa Clara Campus data servers were being powered by either generator, how were these data servers loaded (as in, percent of capacity of data server)?
  - e Were these two engine gensets shutdown as Vantage Santa Clara Campus shed load to match actual load (response d)?
  - f Was any engine used for "essential services" rather than data server load?
  - g Did Vantage Santa Clara Campus data services supported by the engine gensets shutdown or cease operation at some point during the emergency?
  - h When was grid power restored to the Vantage Santa Clara Campus data center?
  - i When was the Vantage Santa Clara Campus data center switched from the backup generators and returned to grid connectivity?
  - j When were customer data server activities resumed?

## **RESPONSE TO DATA REQUEST 46**

See Response to Data Request 43.

47. In the same table, it is stated that Sources S-24, S-25, S-26 and S-27 each ran for approximately 19 hours each
- k What was the start time for each engine, and what was the end time?
  - l What was the load point for each engine?
  - m What type of load was served by each generator?

- n If Vantage Santa Clara Campus data servers were being powered by either generator, how were these data servers loaded (as in, percent of capacity of data server)?
- o Why did the shutdown or start vary slightly from genset to genset?
- p Was any engine used for "essential services" rather than Vantage Santa Clara Campus data server load?
- q Did Vantage Santa Clara Campus data services supported by the engine gensets shutdown or cease operation at some point during the emergency?
- r When was grid power restored to the data center?
- s When was the Vantage Santa Clara Campus data center switched from the backup generators and returned to grid connectivity?
- t When were customer data server activities resumed?

**RESPONSE TO DATA REQUEST 47**

See Response to Data Request 43.

- 48. How many engine gensets in total were installed at the Vantage Santa Clara Campus facility on May 28 and 29, 2016? If these did not need to operate, why?

**RESPONSE TO DATA REQUEST 48**

See Response to Data Request 43.

- 49. What would be the applicability of the May 28/29, 2016 outage to other data centers in the vicinity of the Vantage Santa Clara Campus facility?

**RESPONSE TO DATA REQUEST 49**

See Response to Data Request 43.

- 50. How would the emergency operations of the other backup generators differ from the operations that occurred at the Vantage Santa Clara Campus facility during the May 28 and 29, 2016 outage?

**RESPONSE TO DATA REQUEST 50**

See Response to Data Request 43.

- 51. Did the Vantage data center, or other local data centers, lose grid connectivity on a short 12 minute SVP outage on Dec 2, 2016? Please describe the response to

that outage, if there was one, and how it may differ than the data center responses to the May 28 and 29, 2016 outage.

**RESPONSE TO DATA REQUEST 51**

See Response to Data Request 43.

## PUBLIC HEALTH

*The SPPE application and appendices provides little information on how the applicant conducted the health risk assessment (HRA).*

### **BACKGROUND CONSTRUCTION PHASE IMPACTS**

*On page 69 of the application (TN # 228877-2), the applicant states "Since construction activities are temporary and would occur well over 1,000 feet from the nearest sensitive receptor community risk impacts from construction activities would be less than significant" However, since the construction would last 21 months, staff believes a quantitative HRA is necessary to make sure impacts from construction would be less than significant.*

### **DATA REQUEST**

52. Please provide a quantitative health risk impact assessment (including cancer risk, chrome non-cancer health index, and UTM coordinates) for the 21-month construction period. These impacts should include the following receptors at point of maximum impact (PMI), maximally exposed individual sensitive receptor (MEISR), maximally exposed individual resident (MEIR), and maximally exposed individual worker (MEIW). Please also provide the HRA files.

### **RESPONSE TO DATA REQUEST 52**

The construction risk assessment and support files are included on a CD and will be delivered under separate cover. The construction HRA was prepared using the AERMOD construction modeling results and the latest version of HARP (ADMRT 19121). The table below presents the HRA impact data for the requested receptors. **It should be noted, that in the present HRA analyses, the acronym MIR (maximum impacted receptor) is synonymous with the acronym PMI.**

Receptor ID	Receptor #	UTM E	UTM N	Cancer Risk	Chronic HI	Acute HI
PMI (MIR)	2531*	593360	4136480	3.29 E-6	0.00226	NA
MEI SR	2	593765.5	4137430	1.84 E-8	0.0000126	NA
MEIR	3	593044.8	4135586	1.53 E-8	0.0000105	NA
MEIW	2531	593360	4136480	4.26 E-8	0.00226	NA

Notes:  
Acute HI values are not analyzed or presented for DPM, as DPM has no acute REL value per CARB or OEHHA.  
In the present HRA analyses, the acronym MIR (maximum impacted receptor) is synonymous with the PMI.  
\*Receptor 2531 is actually a worker receptor, the PMI/MIR value presented above assumes that the receptor is theoretically a residential receptor for worse case impacts.

## **BACKGROUND OPERATION PHASE IMPACTS**

*On page 71 and 72 of the application, the applicant provides the information of excess cancer risk during the operation of WDC. However, staff needs more information to check the validity of the HRA.*

## **DATA REQUESTS**

- 53 Please provide the input files of data (i.e. the "\*" ROU" files) for AERMOD and HARP which contain the information of sensitive receptors and residence receptors, including grid identification numbers (i.e. HARP receptor numbers), type (ex. day care centers, nursing homes, schools) and corresponding locations (UTMs), so that staff can differentiate them from all other grid receptors.

### **RESPONSE TO DATA REQUEST 53**

All input and output AERMOD files were previously submitted to CEC staff with the initial application (including all of the electronic support files, input and output files, etc.). "ROU" files are not associated with EPA AERMOD input or output files. All receptor information were provided in the AERMAP and AERMOD input/output files. In addition, in Appendix AQ5, Table AQ5-1 presents the data listing for the sensitive receptors. This table has been revised to show the modeling receptor numbers and is provided as on a CD that will be delivered to the CEC under separate cover.

Note the following: The operational HRA impacts for this project were quantified in two separate modeling and HRA HARP runs. Run number one consisted of the basic modeling impact grid, while run number two consisted of the sensitive receptors only. The receptor numbers noted in the above response are those found in the sensitive receptor modeling input file.

54. Please provide all other related files to enable staff to replicate the health risk assessment.

### **RESPONSE TO DATA REQUEST 54**

All the operational HRA files (modeling and HRA files) have been previously submitted to the CEC.

55. Please specify the HARP receptor number of the closest sensitive receptors - one residence and two schools specified on Table AQ5-1

## RESPONSE TO DATA REQUEST 55

See revised Table AQ5-1 as noted in Response to Data Request 53.

56. Please provide the health risk impacts (including cancer risk, chrome non-cancer health index, and UTM coordinates) at PMI, MEISR, MEIR and MEIW.

## RESPONSE TO DATA REQUEST 56

The table below presents the requested data for operational impacts.

Receptor ID	Receptor #	UTM E	UTM N	Cancer Risk	Chronic HI	Acute HI
PMI	33	593341.7	4136485	5.95E-6	0.00201	NA
MEI SR	2	593765.5	4137430	2.14E-8	0.00000724	NA
MEIR	3	593044.8	4135586	1.96E-8	0.00000663	NA
MEIW	33	593341.7	4136485	6.22E-7	0.00201	NA

Notes:

1. Acute HI values are not analyzed or presented for DPM, as DPM has no acute REL value per CARB or OEHHA.
2. In the present HRA analyses, the acronym MIR (maximum impacted receptor) is synonymous with the PMI.
3. The PMI reported above is in actuality a worker receptor, therefore the PMI is also reported as the MEIW, with worker risk values.

57. On Table 4 3-14, it states that "Annual emissions for each engine are based on the maximum allowed runtime of 50 hours per year". Please confirm that the HRA was based on the 50 hours of operations per engine per year.

## RESPONSE TO DATA REQUEST 57

The annual emissions of DPM based upon 50 hours of maintenance and readiness testing were used for the operations HRA.

58. Other than diesel particulate matter (DPM), does the health risk assessment (HRA) for operation include speciated total organic gases (TOGs) in diesel exhaust from the backup generator exhaust? If no, please justify excluding TOGs. If yes, please provide more detailed information, including their speciation profiles, 1-hr concentrations ( $\mu\text{g}/\text{m}^3$ ). Please also calculate the Acute Hazard Index (HI).

## RESPONSE TO DATA REQUEST 58

DPM has been the accepted surrogate for whole diesel exhaust since the late 1990's. CARB identified DPM as the surrogate compound for whole diesel exhaust in its

Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant staff report in April 1998 (Appendix III, Part A, Exposure Assessment). In the Executive Summary to the staff report CARB notes that diesel exhaust is a complex mixture of both gaseous compounds and particulate matter. They identify the following substances found in the diesel exhaust matrix: acetaldehyde, acrolein, aniline, antimony compounds, arsenic, benzene, beryllium compounds, biphenyl, bis-2 ethylhexylphthalate, 1-3 butadiene, cadmium, chlorine, chlorobenzene, chromium compounds, cobalt compounds, cresol isomers, cyanide compounds, dioxins and dibenzofurans, dibutylphthalate, ethyl benzene, formaldehyde, hexane, inorganic lead, manganese compounds, mercury compounds, methanol, MEK, naphthalene, nickel, 4-nitrobiphenyl, phenol, phosphorus, POM and PAHs, propionaldehyde, selenium compounds, styrene, toluene, xylenes o, m and p.

In addition, the EPA (National Center for Environmental Assessment, ORD), in May of 2002, noted that “DPM mass has historically been used as a surrogate measure of exposure for whole diesel exhaust. They state further that “Because DE (whole diesel exhaust) is a mixture of particles and gases, one must choose a measure of exposure (i.e., dosimeter);  $\mu\text{g}/\text{m}^3$  of DPM has historically been used in many studies as the dosimeter for the entire DE mixture.” And, the EPA assessment uses the whole particle, termed DPM, as the key index measure of DE, and they state that “It is not possible to separate the carbon core of DPM from the adsorbed organics to compare the toxicity in exposures other than with limited in-vitro-type scenarios.”

And finally, in the OEHHA Guidance Manual dated February 2015, Appendix 4, OEHHA notes the following; “In August 1998, the ARB identified diesel exhaust as a toxic air contaminant (TAC) (ARB, 1998). In the identification report, OEHHA provided an inhalation noncancer chronic reference exposure level (REL) of 5 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) and a  $-1$  range of inhalation cancer potency factors of  $1.3 \times 10^{-4}$  to  $2.4 \times 10^{-3}$  ( $\mu\text{g}/\text{m}^3$ ). The Scientific Review Panel on Toxic Air Contaminants recommended a “reasonable”-1 estimate” inhalation unit risk factor of  $3.0 \times 10^{-4}$  ( $\mu\text{g}/\text{m}^3$ ). From the unit risk factor an inhalation cancer potency factor of  $1.1$  ( $\text{mg}/\text{kg}\text{-day}$ )-1 may be calculated. These noncancer and cancer health factors were developed based on whole (gas and particulate matter) diesel exhaust. The surrogate for whole diesel exhaust is diesel PM<sub>10</sub> (particulate matter, ten microns or less in size) is the basis for the risk calculations.” and “An inhalation cancer risk is required for every HRA (The methods for calculating inhalation cancer risk can be found in Chapters 5, 7, and 8.). When comparing whole diesel exhaust to speciated components of diesel exhaust (e.g., PAHs, metals), the cancer risk from inhalation exposure to whole diesel exhaust will outweigh the multipathway cancer risk from the speciated components. For this reason, there will be few situations where an analysis of multipathway risk is necessary.”

Based on the above, and the fact that a large number of HRAs dealing with diesel engines have been previously based on DPM, the HRA for the diesel engines at the

WDC was based on DPM (which contains a large number of speciated toxic organic gases).



## **TRANSPORTATION**

### **BACKGROUND DEMOLITION AND CONSTRUCTION TRIP GENERATION**

*The Project Description section of the SPPE application states there would be demolition and construction activities but no information is provided on the daily roundtrips generated by workers commuting to the project site and delivery and truck haul trips for demolition and construction activities. The SPPE application also states during the demolition and construction of WDC "roughly 51,000 cubic yards of soil and undocumented fill would be removed from the site, to be replaced by 60,000 cubic yards of fill to be purchased from an existing commercial fill provider and imported to the site" (page 16). However, no information is provided on the number of roundtrips generated from the removal and delivery of soil and/or fill.*

### **DATA REQUEST**

59. Please provide the average number of daily roundtrips, including both worker and delivery and truck haul trips, for the demolition and construction period of the project (WBGF and WDC).

### **RESPONSE TO DATA REQUEST 59**

WP, LLC is developing this information and will provide it the Commission by August 30, 2019.

### **BACKGROUND OPERATION TRIP GENERATION**

*Page 162, section 4.17-2 Vehicle Trips states, "Based on ITE [Institute of Transportation Engineers] rates, the project would generate an estimated total of 48 weekday AM peak hour trips and 39 weekday PM peak hour trips, while the existing warehouse use on the site (land use code 150) generates 29 AM peak hour trips and 33 PM peak hour trips. The WDC would result in a nominal increase of 19 AM peak hour trips and 10 PM peak hour trips".*

### **DATA REQUESTS**

60. Please verify the trip calculations, there is an inconsistency in the increase of PM peak hour trips.

### **RESPONSE TO DATA REQUEST 60**

The trip calculations for PM peak hour for both existing and proposed project are correct (an estimated 39 PM trips for the proposed project and 33 PM trips for the existing uses on the site). The net change in trips from the existing uses to the proposed project was incorrectly stated as 10 instead of 6.

61. Please provide the average number of daily roundtrips, including both worker and delivery and truck haul trips, for operation of the project (WBGF and WDC).

#### **RESPONSE TO DATA REQUEST 61**

Based on the Institute of Engineers Trip Generation Manual (10<sup>th</sup> Edition), the project would result in an average of 431 daily one-way trips, or 215.5 average daily round trips. The ITE Trip Generation Manual provides estimates for trip generation rates associated with data center land uses (Land Use Code 160) based on calculations from a survey of an existing data center. Trip generation based on this average rate does not provide specific data on worker, delivery, or truck haul trips. Since the data is based on a survey of an existing data center, it can be assumed that the average trip rate encompasses worker, delivery, and haul trips associated with a typical data center.

#### **BACKGROUND VEHICLE MILES TRAVELED**

*As a result of recent updates to the CEQA Guidelines, which include analyzing transportation impacts pursuant to Senate Bill 743, staff requests information on the vehicle miles traveled for the demolition, construction, and operation generated trips.*

#### **DATA REQUESTS**

62. Please provide the estimated one-way trip lengths for the workers, deliveries, and truck haul trips generated by the project's demolition and construction activities.

#### **RESPONSE TO DATA REQUEST 62**

The following CalEEMod default trip lengths were used to estimate one-way trip lengths associated with demolition and construction activities:

- Worker trips = 10.8 miles
- Vendor (delivery) trips = 7.3 miles
- Haul trips = 20 miles

63. Please provide the estimated one-way trip lengths for the workers, deliveries, and truck haul trips generated during project operation.

#### **RESPONSE TO DATA REQUEST 63**

The following CalEEMod default trip lengths were used to estimate one-way trip lengths associated with project operation:

- C-W (Commercial Worker) trips = 9.5 miles

- C-C (Commercial Customer) trips = 7.3 miles
- C-NW (Commercial Nonworker, including deliveries) = 7.3 miles

### **BACKGROUND THERMAL PLUMES**

*According to the SPPE application, the project would have emergency generators and air cooled chillers and the project site is located approximately 0.3 miles from the Norman Y. Mineta San Jose International Airport.*

### **DATA REQUEST**

64. In order to evaluate potential plume hazards to aviation, please model (using the Spillane methodology) and provide analysis of the plume's velocity for the project's emergency generators and chillers.

### **RESPONSE TO DATA REQUEST 64**

The thermal plume analysis is being conducted and will be submitted under separate cover by September 15, 2019.

### **BACKGROUND PUBLIC ROADWAYS AND INTERSECTIONS**

*Page 164 of the SPPE application states, "project construction or operations will not permanently alter any public roadways or intersections".*

### **DATA REQUEST**

65. Would project demolition, construction, or operations temporarily alter any public roadway or intersection? If so, please identify which roadway and/or intersection would be affected, describe the alteration, and provide the duration of the activities on the affected roadway and/or intersections.

### **RESPONSE TO DATA REQUEST 65**

Demolition, construction or operations of the WDC and the WBGF would not temporarily alter any public roadways or intersections.

## **UTILITIES AND SERVICE SYSTEMS**

### **DATA REQUESTS**

66. The SPPE application states that telecommunication services for the project would be obtained from city connections. However, staff is not aware that the City of Santa Clara provides telecommunication services. Please confirm the information in the application, and if it is found to be incorrect, provide the correct information on who would provide those services to the project.

### **RESPONSE TO DATA REQUEST 66**

The intent of the statement in the SPPE Application was to convey that the project would connect to existing utility infrastructure within City right-of-way adjacent to the project site. The City does not operate the telecommunications infrastructure to be utilized by the project. Telecommunication services would be provided to the site by a variety of 26 regional and long haul local carriers with services within the City of Santa Clara.

67. The SPPE application did not give any information regarding amount or source of water for construction. Please provide this information that staff needs to complete the analysis for the construction phase of the project.

### **RESPONSE TO DATA REQUEST 67**

WP, LLC is developing this information and will provide it to the CEC by August 30, 2019.