

# ROCKLIN SELF STORAGE PROJECT AIR QUALITY STUDY

*Prepared for:*

**Fort Sutter Company**

*Prepared by:*

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Project #3360-001

October 23, 2018

*KD Anderson & Associates, Inc.*

Transportation Engineers

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## EXECUTIVE SUMMARY

This *Executive Summary* is a brief overview of the analysis presented in this air quality study. It is not intended to be a comprehensive description of the analysis. For more details, the reader is referred to the full description presented in this study.

The Rocklin Self Storage Project was analyzed as including: 106,760 square feet (sf) of self-storage space in 10 structures. The project has since been reduced in size to 91,565 sf of self-storage space. The project also includes an office building; a boat & recreational vehicle storage area; approximately 31 square feet of asphalt-paved surface; and approximately 90,839 of concrete-paved surface, including the use of pervious pavers.

The project site is located south of West Stanford Ranch Road, north of West Oaks Boulevard, and east of Sunset Boulevard, in the City of Rocklin, Placer County, CA.

This air quality study presents an evaluation of the construction-related and operational impacts of the proposed project on the air quality environment.

The project site is located within the Sacramento Valley Air Basin (SVAB). The SVAB portion of Placer County is designated a state and federal nonattainment area for ozone. The area is a state nonattainment area for inhalable particulate matter smaller than 10 microns in diameter (designated PM<sub>10</sub>), and is a federal nonattainment area for fine particulate matter smaller than 2.5 microns in diameter (PM<sub>2.5</sub>). The area is designated attainment for carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>x</sub>), and lead.

Implementation of the Rocklin Self Storage Project would result in the generation of short-term construction-related air pollutant emissions. The amount of project-related criteria pollutant emissions would be less than the significance thresholds and would, therefore, be considered to have a less-than-significant impact on air quality.

Air quality impacts due to long-term operation of the project were assessed by evaluating criteria pollutant emissions. Project-related emission levels would be less than the significance thresholds. Therefore, operation of the project is considered to have a less-than-significant impact on criteria pollutant air quality.

Screening-level analyses were performed to assess the project-related effect on CO concentrations. These analyses concluded that the project would not result in violations of the federal and state CO standards.

An assessment of the effects of the Rocklin Self Storage Project on global climate change was conducted. The project-related change in greenhouse gas (GHG) emissions was quantified. The project is determined to have a less-than-significant impact on global climate change.

## SECTION 1

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### INTRODUCTION

This air quality study has been prepared to assess the air quality impacts of the Rocklin Self Storage Project. This study contains information that will be used in the preparation of a California Environmental Quality Act (CEQA) environmental checklist for this project. The City of Rocklin is the CEQA lead agency for the project environmental review, and will prepare a CEQA environmental document for the project.

To facilitate incorporation of this document into the CEQA environmental checklist, this document is organized and formatted to be consistent with a CEQA *Environmental Checklist Form*, which is Appendix G of *State CEQA Guidelines* (Title 14 California Code of Regulations section 15000 et seq.).

This air quality study presents assessments of the localized air quality impacts of the proposed project, the impacts of the project on regional air quality, and construction-related impacts of the project.

Following this *Introduction* section, this air quality study presents a description of:

- the proposed project,
- the impacts of the project on air quality, and
- the impacts of the project on global climate change and greenhouse gases.

All modeling results are included in the *Technical Appendix* of this air quality study.

## SECTION 2

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### PROJECT DESCRIPTION

The following is a description of the Rocklin Self Storage Project, based on information from the project site plan and Orr pers. comm.

#### 2.1 PROJECT LOCATION

The proposed Rocklin Self Storage Project is located at 1420 West Stanford Ranch Road in the City of Rocklin, Placer County, CA. The project site is located south of West Stanford Ranch Road, north of West Oaks Boulevard, and approximately 600 to 1,200 feet east of Sunset Boulevard. **Figure 1** presents an aerial photograph of the vicinity of the project site, indicating the types of existing land use in the general vicinity. **Figure 2** and **Figure 3** present the project site plan, showing the north and south portions, respectively of the project site.

#### 2.2 PROJECT COMPONENTS

As shown in **Figure 2** and **Figure 3**, the Rocklin Self Storage Project was analyzed as including:

- 106,760 square feet (sf) of self-storage space in 10 structures;
- an office building;
- a boat & recreational vehicle storage area;
- approximately 31 sf of asphalt-paved surface; and
- approximately 90,839 SF concrete-paved surface, including the use of pervious pavers.

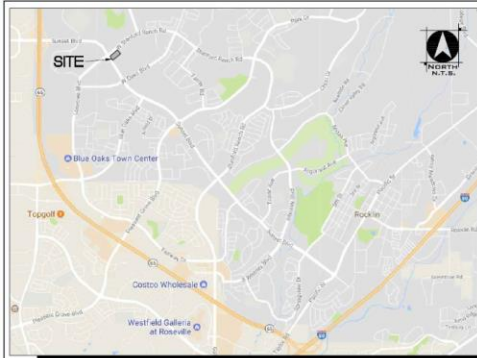
Subsequent to the analysis conducted for this air quality study, the size of the Rocklin Self Storage Project was reduced. As of the date of this study, the project includes 91,565 sf of self-storage space (Inthavong pers. comm.). To be conservative in the assessment of potential air quality impacts, the analysis presented in this air quality study is based on the project including the relatively larger 106,760 sf of self-storage space. It is likely the air quality impacts of the relatively smaller project including 91,565 sf of self-storage space would be less than described in this air quality study.

#### 2.3 PROJECT CONSTRUCTION SCHEDULE

Construction of the Rocklin Self Storage Project is expected to take place between April 2019 and December 2019.



VICINITY MAP



VICINITY MAP  
NOT TO SCALE

# PRELIMINARY SITE PLAN ROCKLIN SELF STORAGE

1420 WEST STANFORD RANCH RD

APN: 378-010-007  
EVERGREEN SR LAND LP

APN: 378-010-008  
SUNSET WEST STANFORD RANCH  
OWNERS ASSOCIATION

PROJECT INFORMATION	
<b>OWNER</b>	1500 STANFORD RANCH PROPERTIES P.O. BOX 25566 SACRAMENTO, CA 95855-5566 ATTN:
<b>DEVELOPER/APPLICANT</b>	FORT SUPPTE COMPANY P.O. BOX 25566 SACRAMENTO, CA 95855 ATTN: DEBRA FLETCHER 916-483-1100 dfl@fortsupp.com
<b>PLANNER/ENGINEER</b>	TSD ENGINEERING, INC. 785 ORCHARD DRIVE, SUITE 110 FOLSOM, CA 95630 ATTN: CASEY FEICKERT 916-483-0707 x 108 cfeickert@tsdeng.com
<b>ARCHITECT</b>	DOMEM 6331 LONGMEER BLVD, SUITE 108 ROCKLIN, CA 95765 ATTN: GABRIEL INTHAYONG 916-223-2721 x100 carrie@domem.com
<b>ASSESSORS PARCELS NO</b>	82-08-02-000
<b>LOT AREA</b>	47.4%
<b>BUILDING</b>	42.25 AC (91,444 SF) 47.4%
<b>ASPHALT PAVEMENT</b>	0.00 AC (0 SF) 0.0%
<b>CONCRETE PAVEMENT</b>	2.20 AC (48,065 SF) 4.7%
<b>LANDSCAPE</b>	0.35 AC (7,544 SF) 3.3%
<b>CONCRETE PARKING</b>	0.00 AC (0 SF) 0.0%
<b>OTHER CONCRETE</b>	0.00 AC (0 SF) 0.0%
<b>OTHER</b>	0.33 AC (7,169 SF) 3.2%
<b>TOTAL</b>	44.54 AC (97,321 SF) 100%
<b>LOT 'A'</b>	14.54 AC
<b>LOT 'B'</b>	14.20 AC
<b>TOTAL</b>	28.74 AC
<b>ZONING</b>	EXISTING - PD-C (PLANNED DEVELOPMENT COMMERCIAL)
<b>GENERAL PLAN</b>	EXISTING - RC (RETAIL COMMERCIAL)
<b>PROPERTY DESCRIPTION</b>	1420 WEST STANFORD RANCH RD ROCKLIN, CA 95607 PLACER COUNTY 02-088-000-000 APN: PROPERTY AREA: 14.20 AC (480,738 SF) NET

**FLOOD ZONE**  
ZONE X (AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD-PLAIN) PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAPS, MAP NO. 06061C0413F, DATED JUNE 8, 1998.

**BASIS OF BEARING**  
THE BASIS OF BEARING FOR THIS SURVEY IS IDENTICAL WITH THAT OF THE SUBDIVISION MAP ENTITLED "STANFORD RANCH, PHASE IV-UNIT 2", FILED IN BOOK "T" OF MAPS AT PAGE 50 IN THE PLACER COUNTY RECORDER'S OFFICE OCTOBER, 1995.

**CITY OF ROCKLIN DATUM**  
BENCHMARK RR-6 ELEV=717.23  
2" BRASS DISK IN A MONUMENT WELL WITH A PUNCH MARK AND "C.C.E. 24178" STAMPED ON IT AT THE INTERSECTION OF IRROQUOIS RD. AND S/OUX ST (NWGD29).

**UTILITY PROVIDERS**

<b>WATER</b> PLACER COUNTY WATER AGENCY (PCWA) CITY OF ROCKLIN	<b>STORM DRAIN</b> CITY OF ROCKLIN	<b>ELECTRIC</b> MARTY GRAGG 530-889-1236	<b>CABLE</b> WILLYE BROADBAND BOBBILYN THEDALE 96-300-1515
<b>SANITARY SEWER</b> SOUTH PLACER MUNICIPAL UTILITY DISTRICT	<b>GAS</b> MARTY GRAGG 530-889-1236	<b>TELEPHONE</b> STREET GREGG BELLIS 530-888-2041	<b>FIRE</b> CITY OF ROCKLIN

WEST STANFORD RANCH ROAD

PARCEL 56  
LOT "A"  
±4.70 AC

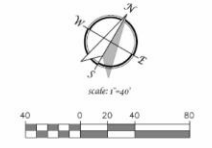
PARCEL 56  
LOT "B"  
±4.54 AC

APN: 017-086-002  
SR 95-E VENTURES, LLC

APN: 017-086-009  
UNITED NATURAL FOODS

**PARKING SUMMARY**

	PROPOSED	REQUIRED
CUSTOMER EMPLOYEE (STANDARD)	4	X
ACCESSIBLE	1	X
TOTAL PARKING	5	X
TOTAL INVENTORY	X	



PRELIMINARY SITE PLAN  
NOVEMBER 15, 2017

**TSD ENGINEERING, INC.**  
785 Orchard Drive, Suite #110  
Folsom, CA 95630  
Phone: (916) 608-0707  
Fax: (916) 608-0701

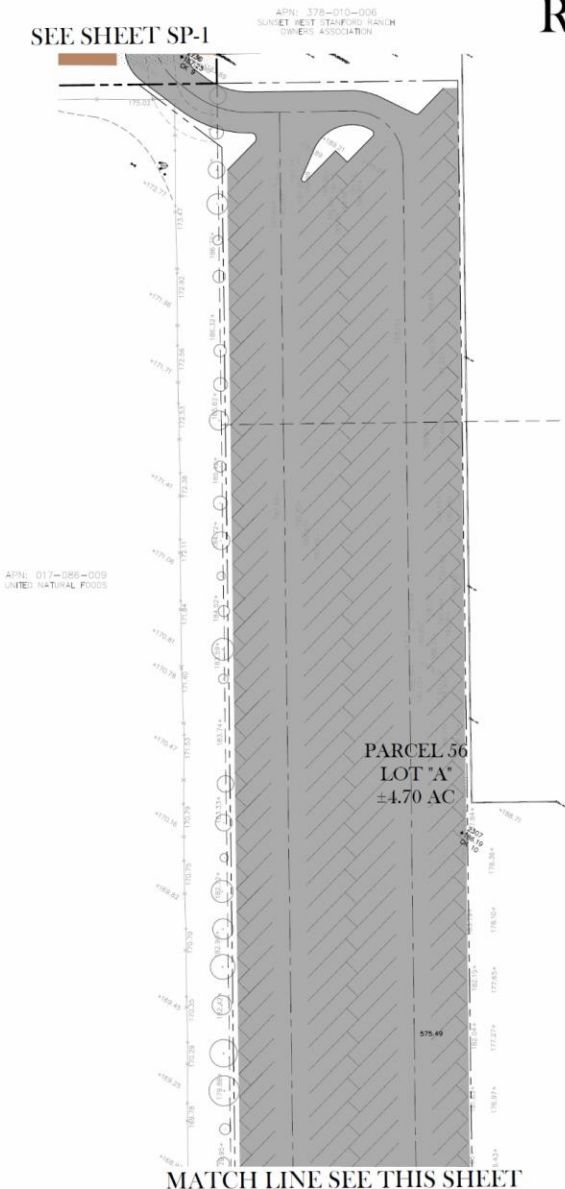
1 of 3

SP-1

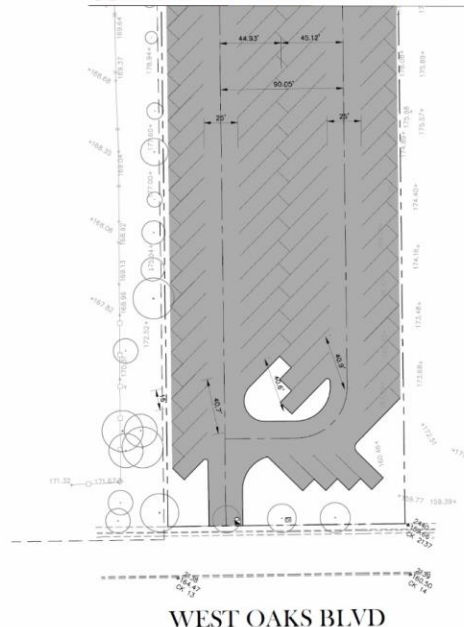


# PRELIMINARY SITE PLAN ROCKLIN SELF STORAGE 1420 WEST STANFORD RANCH RD

SEE SHEET SP-1



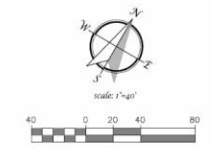
MATCH LINE SEE THIS SHEET



PARCEL 56  
LOT "B"  
±4.54 AC

PROJECT INFORMATION	
<b>OWNER</b>	1400 STANFORD RANCH PROPERTIES P.O. BOX 255646 SACRAMENTO, CA 95855-5646 ATTN:
<b>DEVELOPER/APPLICANT</b>	PORT ZEPHYR COMPANY P.O. BOX 255646 SACRAMENTO, CA 95855 ATTN: DIENNA FLEITER 506-645-1100 dienna@portzephyr.com
<b>PLANNER/ENGINEER</b>	TSD ENGINEERING, INC. 785 ORCHARD DRIVE, SUITE 110 FOLSOM, CA 95620 ATTN: CADET FRECKERT 916-608-0707 x 103 dcad@tsdeng.com
<b>ARCHITECT</b>	FORME 6032 LONESTAR BLVD, SUITE 1102 ROCKLIN, CA 95765 ATTN: CARTER INTREAVONG 916-332-2714 carter@forme.design
<b>ASSESSOR'S PARCEL NO.</b>	07-001-023-000
<b>LOT AREA</b>	
IRREGULAR	42.85 AC (93,444 SF) 47.4%
ASPHALT PAVEMENT	40.80 AC (87,972 SF) 0.0%
CONCRETE PAVEMENT	2.20 AC (47,520 SF) 44.7%
LANDSCAPE	40.13 AC (85,443 SF) 3.3%
CONCRETE PARKING	40.86 AC (87,479 SF) 1.3%
OTHER CONCRETE	40.80 AC (87,377 SF) 0.0%
OTHER	40.13 AC (85,929 SF) 3.3%
TOTAL	44.54 AC (95,223 SF) 100%
LOT "A" ±4.54 AC	
LOT "B" ±4.70 AC	
TOTAL ±9.24 AC	
<b>ZONING</b>	
EXISTING	PD-C (PLANNED DEVELOPMENT COMMERCIAL)
<b>GENERAL PLAN</b>	
EXISTING	RC (RETAIL COMMERCIAL)
<b>PROPERTY DESCRIPTION</b>	
ADDRESS	1400 WEST STANFORD RANCH RD
	ROCKLIN, CA 95627
	PLACER COUNTY
APN	07-006-00-000
PROPERTY AREA	±9.20 AC (±400,728 SF) NET

FLOOD ZONE	
ZONE X (AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOOD-PLAIN) PER THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAPS, MAP NO. 06061G0413F, DATED JUNE 8, 1995	



PRELIMINARY SITE PLAN  
NOVEMBER 15, 2017

**TSD ENGINEERING, INC.**  
expect more.  
785 Orchard Drive, Suite #110  
Folsom, CA 95630  
Phone: (916) 608-0707  
Fax: (916) 608-0701

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## SECTION 3

### AIR QUALITY

The following is the *Air Quality* portion of the CEQA *Environmental Checklist Form*. The checklist form is presented as Appendix G of the *State CEQA Guidelines* (Title 14 California Code of Regulations section 15000 et seq.).

<b>III. AIR QUALITY</b>		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a.	Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>
d.	Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>
e.	Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>

As shown above, the *Air Quality* portion of the CEQA *Environmental Checklist Form* is presented as items III.a through III.e. A discussion of each of these items is presented below.

### 3.1 DISCUSSION OF ITEMS III.a AND III.b

The Rocklin Self Storage Project site is located in the jurisdiction of the Placer County Air Pollution Control District (PCAPCD). Portions of the PCAPCD area are within three air basins. The Rocklin Self Storage Project site is within the SVAB portion of the PCAPCD. The SVAB portion of the PCAPCD is designated attainment for the federal PM<sub>10</sub> standard, but is located within the Sacramento region's severe non-attainment area for federal ozone standards. The PCAPCD, along with other local air districts in the Sacramento region, are required to comply with and implement the State Implementation Plan (SIP) to demonstrate when and how the region can attain the federal ozone standards. Accordingly, the Sacramento Metropolitan Air Quality Management District (SMAQMD) prepared the *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* in December 2008, with input from the other air districts in the region. The SMAQMD adopted the Plan on January 22, 2009; followed by the Feather River Air Quality Management District (FRAQMD) on February 2, 2009; the El Dorado County Air Quality Management District (EDCAQMD) on February 10, 2009; the Yolo-Solano Air Quality Management District (YSAQMD) on February 11, 2009; and the PCAPCD on February 19, 2009. The California Air Resources Board (CARB) determined that the Plan meets Clean Air Act requirements and approved the Plan on March 26, 2009 as a revision to the SIP.

The *Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* demonstrates how existing and new control strategies would provide the future emission reductions needed to meet the federal Clean Air Act requirements. Adoption of all reasonably available control measures is required for attainment. Measures could include, but are not limited to the following: regional mobile incentive programs; urban forest development programs; and local regulatory measures for emission reductions related to indirect source rules, architectural coating, automotive refinishing, natural gas production and processing, asphalt concrete, and various others.

The SMAQMD held a public hearing on the *2013 Revisions to the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan*. This hearing was conducted on behalf of the air districts in the Sacramento Federal Ozone Nonattainment Area, including the YSAQMD, the FRAQMD, the PCAPCD, and the EDCAQMD. The *2013 Revisions to the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* was adopted on September 26, 2013 and submitted to the CARB. CARB approved the plan on November 21, 2013, and submitted it to the United States Environmental Protection Agency to be included in or revise the SIP.

To evaluate ozone and other air pollutant emissions, the PCAPCD has established significance thresholds for emissions of ozone precursors reactive organic gas (ROG) and nitrogen oxides (NO<sub>x</sub>), PM<sub>10</sub>, and CO. Significance thresholds used in this air quality study are from the PCAPCD document *Placer County Air Pollution Control District Policy – Review of Land Use Projects Under CEQA* (Placer County Air Pollution Control District 2016a).

As the CEQA lead agency, the City of Rocklin uses the PCAPCD significance thresholds listed in **Table 1** as air quality standards in the evaluation of air quality impacts associated with proposed development projects. Thus, if the proposed project's emissions exceed the pollutant

thresholds presented in **Table 1**, the project would be considered to have a potentially significant effect on regional air quality and the attainment of federal and State Ambient Air Quality Standards.

**Table 1. Placer County Air Pollution Control District  
Criteria Pollutant Significance Thresholds**

<b>Pollutant</b>	<b>Construction Phase Thresholds</b>	<b>Operational Phase Project-Level Thresholds</b>	<b>Operational Phase Cumulative- Level Thresholds</b>
Reactive Organic Gases (ROG)	82	55	55
Nitrogen Oxides (NO <sub>x</sub> )	82	55	55
Inhalable Particulate Matter (PM <sub>10</sub> )	82	82	82

\_\_\_\_\_

Sources: Placer County Air Pollution Control District 2016a.

Note: All thresholds are expressed in pounds per day.

Implementation of the Rocklin Self Storage Project would contribute to increases of ROG, NO<sub>x</sub>, and PM<sub>10</sub> emissions in the study area. As specified in the PCAPCD document *CEQA Air Quality Handbook – Assessing and Mitigating Air Quality Impacts Under CEQA* (Placer County Air Pollution Control District 2017), short-term construction-related and long-term operational emissions associated with the project were estimated using the CalEEMod emissions modeling program (California Air Pollution Control Officers Association 2016). CalEEMod is a land use emissions computer model designed to provide a platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operation of a variety of land use projects. The model quantifies direct emissions from construction and operation (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use.

More detailed information on the CalEEMod model is available at the internet website <http://caleemod.com/>. Output files from the CalEEMod model, as applied to the Rocklin Self Storage Project, are presented in the *Technical Appendix* of this air quality study.

The CalEEMod emissions model contains default data characterizing the construction and operation of land use development projects, such as the Rocklin Self Storage Project. The CalEEMod default values were used except where:

- project-specific data are available,
- updated technical data are available.

Project-specific data included the size of the project site and the proposed structures on the project site (Orr pers. comm.).

Updated technical data include use of vehicle trip generation rates for the Mini-Warehouse land use category from the Institute of Transportation Engineers (ITE) document *Trip Generation Manual, 10<sup>th</sup> Edition* (Institute of Transportation Engineers 2017).

### **3.1.1 Construction Emissions**

Construction of the Rocklin Self Storage Project would generate air pollutants intermittently within the project site, and the vicinity of the site, until all construction has been completed. The air pollutant emission sources would include the following:

- dust from grading and any infrastructure improvements,
- emissions from construction equipment and vehicles, and
- emissions from architectural coating.

Dust from construction activities can cause impacts both locally and regionally. The dry climate of the area during the summer months, combined with the fine, silty soils of the region, create a high potential for dust generation. Increased dustfall and locally elevated levels of PM<sub>10</sub> near construction activities are expected. Depending on the weather, soil conditions and amount of construction activity taking place at any one time, fugitive dust emissions could affect existing

land uses near the project site. In addition, ROG and NO<sub>x</sub> emissions would be generated as construction moves forward. As shown in **Table 1**, the PCAPCD thresholds of significance for construction are 82 ppd for ROG, NO<sub>x</sub> and PM<sub>10</sub>. **Table 2** shows the estimated maximum construction emissions of ROG, NO<sub>x</sub>, and PM<sub>10</sub> for the Rocklin Self Storage Project.

The CalEEMod output files are presented in the *Technical Appendix* of this air quality study.

As shown in **Table 2**, the estimated levels of ROG, NO<sub>x</sub>, and PM<sub>10</sub> emissions would be below the PCAPCD thresholds. Therefore, the construction-related impacts of the Rocklin Self Storage Project for these pollutants are considered to be less than significant and no mitigation measures are required.

### 3.1.2 Operational Emissions

Development of the Rocklin Self Storage Project would result in the generation of ROG and NO<sub>x</sub> emissions, which are ozone-precursor pollutants, as well as PM<sub>10</sub> emissions. The PCAPCD threshold of significance for operational impacts is 55 ppd for ROG, NO<sub>x</sub> and 82 ppd for PM<sub>10</sub>. The predicted operational emissions for the Rocklin Self Storage Project are shown in **Table 3**.

As shown in **Table 3**, the project's operational emissions would be below the PCAPCD thresholds of significance. Thus, the Rocklin Self Storage Project would not substantially contribute to the District's nonattainment status of ozone, and would not result in projected violations of the PM<sub>10</sub> standards. Because operation of the Rocklin Self Storage Project would result in criteria air pollutant emissions below the PCAPCD significance thresholds, operation of the proposed project would have a less-than-significant impact on air quality.

### 3.1.3 Conclusion

Both construction-related and operational emissions due to the Rocklin Self Storage Project would be below the applicable PCAPCD thresholds of significance for ROG, NO<sub>x</sub>, and PM<sub>10</sub>. Therefore, the project is considered to have a less-than-significant impact on air quality.

**Table 2. Construction-Related Criteria Pollutant Emissions**

Pollutant	Project-Related Emissions	Construction Phase Significance Thresholds	Significant Impact?
Reactive Organic Gases (ROG)	46.62	82	No
Nitrogen Oxides (NO <sub>x</sub> )	71.83	82	No
Inhalable Particulate Matter (PM <sub>10</sub> )	32.37	82	No

Sources: KD Anderson & Associates 2018, CalEEMod emissions model.  
Thresholds from Placer County Air Pollution Control District 2016a.

Notes: All values are expressed in pounds per day.  
Values shown are maximums of all construction phases.  
Values shown are the maximum of summer and winter values.

**Table 3. Operational Criteria Pollutant Emissions**

Pollutant	Project-Related Emissions	Operational Phase Project-Level Significance Thresholds	Significant Impact?
Reactive Organic Gases (ROG)	3.01	55	No
Nitrogen Oxides (NO <sub>x</sub> )	3.28	55	No
Inhalable Particulate Matter (PM <sub>10</sub> )	1.33	82	No

Sources: KD Anderson & Associates 2018, CalEEMod emissions model.  
Thresholds from Placer County Air Pollution Control District 2016a.

Notes: All values are expressed in pounds per day.  
Values shown are the maximum of summer and winter values.



### 3.2 DISCUSSION OF ITEM III.c

Placer County is classified as a severe non-attainment area for the federal ozone standards. To improve air quality and attain the health-based standards, reductions in emissions are necessary within non-attainment areas. The project is part of a pattern of urbanization occurring in the greater Sacramento ozone non-attainment area. The growth and combined population, vehicle usage, and business activity within the non-attainment area from the project, in combination with other past, present and reasonably foreseeable projects within Rocklin and surrounding areas, would either delay attainment of the standards or require the adoption of additional controls on existing and future air pollution sources to offset project-related emission increases. In addition, the project would cumulatively contribute to regional air quality health effects through emissions of criteria and mobile source air pollutants.

The PCAPCD adopted cumulative thresholds of significance of 55 ppd for ROG and NO<sub>x</sub>, and 82 ppd of PM<sub>10</sub>, applied to project operational emissions. Although a cumulative threshold, the threshold is applied to project-level emissions. The daily increase in regional emissions from auto travel and area sources associated with the proposed project is shown for ROG, NO<sub>x</sub> and PM<sub>10</sub> in **Table 4**.

As shown in **Table 4**, operational emissions of ROG and NO<sub>x</sub> would be less than 55 ppd, and operational emissions of PM<sub>10</sub> would be less than 82 ppd, the PCAPCD cumulative thresholds of significance. Therefore, the cumulative impact associated with the project is considered to be less than significant and no mitigation measures are required.

**Table 4. Operational Cumulative-Level Criteria Pollutant Emissions**

<b>Pollutant</b>	<b>Project-Related Emissions</b>	<b>Operational Phase Cumulative-Level Thresholds</b>	<b>Exceeds Cumulative Thresholds?</b>
Reactive Organic Gases (ROG)	3.01	55	No
Nitrogen Oxides (NO <sub>x</sub> )	3.12	55	No
Inhalable Particulate Matter (PM <sub>10</sub> )	1.33	82	No

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Sources: KD Anderson & Associates 2018, CalEEMod emissions model.  
Thresholds from Placer County Air Pollution Control District 2016a.

Notes: All values are expressed in pounds per day.  
All values shown are summer (ozone season) values.

### 3.3 DISCUSSION OF ITEM III.d

During short-term construction and long-term operation of the Rocklin Self Storage Project, project-related activities would generate ROG, NO<sub>x</sub>, and PM<sub>10</sub> emissions. Nearby off-site sensitive receptors would be exposed to these emissions. However, as described above in Sections 3.1 and 3.2, project-related emissions would be below significance thresholds established by the PCAPCD. Therefore, exposure of sensitive receptors to ROG, NO<sub>x</sub>, and PM<sub>10</sub> emissions is considered less than significant and no mitigation measures are required.

#### 3.3.1 Roadway and Intersection Emissions (Operational Indirect Sources)

Concentrations of CO along roadways and particularly at intersections are associated with the number of vehicles and the level of traffic congestion. Slow-moving vehicles result in elevated concentrations of CO at sensitive receptors adjacent to the roadways. In suburban or urban areas, traffic congestion at intersections can result in elevated CO concentrations.

The PCAPCD document *CEQA Air Quality Handbook – Assessing and Mitigating Air Quality Impacts Under CEQA* (Placer County Air Pollution Control District 2017) presents a screening method for assessing the potential for violations of the CO air quality standards. The handbook states,

“When a project’s CO emissions from vehicle operation are more than 550 lbs/day and if either of the following scenarios is true for any intersection affected by the project traffic, the project should conduct a site-specific CO dispersion modeling analysis to evaluate the potential local CO emission impact at roadway intersections:

- “A traffic study for the project indicates that the peak-hour LOS on one or more streets or at one or more intersections (both signalized and non-signalized) in the project vicinity will be degraded from an acceptable LOS (e.g., A, B, C, or D) to an unacceptable LOS (e.g., E or F); or
- “A traffic study indicates that the project will substantially worsen an already existing unacceptable peak-hour LOS on one or more streets or at one or more intersections in the project vicinity. ‘Substantially worsen’ includes situations where a delay would increase by 10 seconds or more when project-generated traffic is included.

“If a project is identified to have potential CO impacts, for any intersection affected by the project which already has traffic mitigation incorporated, the District would recommend the applicant/consultant conduct a CO dispersion modeling analysis using the CALINE-4 dispersion model to identify potential CO concentrations at the impacted street(s) or intersection(s).”

In this air quality study, if a project does not meet the PCAPCD screening thresholds for CO emissions the project will be considered to have a less than significant impact on CO emissions.

Implementation of the Rocklin Self Storage Project would generate CO emissions in the study area. Long-term operational emissions associated with the project were estimated using the CalEEMod emissions modeling program (California Air Pollution Control Officers Association 2016).

Operation of the Proposed Project would generate 5.84 ppd of CO. The generation of CO emissions by the Proposed Project would be less than the PCAPCD 550 ppd screening threshold. Therefore, this impact is considered less than significant, and no mitigation measures are required.

### **3.4 DISCUSSION OF ITEM III.e**

Typical odor sources include industrial or intensive agricultural uses. Self storage land uses as proposed for the Rocklin Self Storage Project are not typically associated with the creation of objectionable odors during long-term operation. Construction of the project, particularly diesel fumes from construction equipment, could cause objectionable odors. However, construction emissions are minimal and temporary, and would likely only affect a specific receptor for a period of days or perhaps weeks.

Therefore, the proposed project would not create objectionable odors. As a result, this impact is considered less than significant and no mitigation measures are required.

## SECTION 4

### GREENHOUSE GAS EMISSIONS

The following is the *Greenhouse Gas Emissions* portion of the *CEQA Environmental Checklist Form*. The checklist form is presented as Appendix G of the *State CEQA Guidelines* (Title 14 California Code of Regulations section 15000 et seq.).

VII. GREENHOUSE GAS EMISSIONS Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<b>X</b>	<input type="checkbox"/>

As shown above, the *Greenhouse Gas Emissions* portion of the *CEQA Environmental Checklist Form* is presented as items VII.a and VII.b. The assessment of these items is described below.

#### 4.1 DISCUSSION OF ITEMS VII.a AND VII.b

In September 2006, then-Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the California Global Warming Solutions Act (California Health and Safety Code Division 25.5, §§ 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished by enforcing a statewide cap on GHG emissions that will be phased in starting in 2012.

AB 32 requires CARB to adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrived at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state reduces GHG

emissions enough to meet the cap. AB 32 also includes guidance on instituting emissions reductions in an economically efficient manner, along with conditions to ensure that businesses and consumers are not unfairly affected by the reductions. According to CARB's *Climate Change Scoping Plan* (Scoping Plan) (California Air Resources Board 2008), the 2020 target of 427 million metric tons of CO<sub>2</sub>e requires the reduction of 169 million metric tons of CO<sub>2</sub>e, or approximately 28.3 percent, from the state's projected 2020 business-as-usual (BAU) emissions level of 596 million metric tons of CO<sub>2</sub>e. However, CARB has discretionary authority to seek greater reductions in more significant and growing GHG sectors, such as transportation, as compared to other sectors that are not anticipated to significantly increase emissions. In August 2011, the Scoping Plan was re-approved by the Board of CARB and includes the *Final Supplement to the Scoping Plan Functional Equivalent Document* (California Air Resources Board 2011). This document includes expanded analysis of project alternatives as well as updates the 2020 emission projections in light of the current economic forecasts. Considering the updated 2020 BAU estimate of 507 million metric tons of CO<sub>2</sub>e, a 16 percent reduction below the estimated BAU levels would be necessary to return to 1990 levels by 2020.

AB 32 required the Scoping Plan be updated every five years. The 2013 *First Update to the Climate Change Scoping Plan* (2013 Update) (California Air Resources Board 2014) builds upon the initial Scoping Plan with new strategies and recommendations. The 2013 Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments, and defines CARB's climate change priorities for the next five years. The 2013 Update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the initial Scoping Plan. These efforts put California on course to achieve the near-term 2020 goal, and have created a framework for ongoing climate action that can be built upon to maintain and continue economic sector-specific reductions beyond 2020, as required by AB 32.

The *First Update to the Climate Change Scoping Plan* was approved by the Board of CARB on May 22, 2014. CARB is moving forward with a second update to the Scoping Plan.

GHG emissions contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHG emissions contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. A project's GHG emissions are at a micro-scale relative to global emissions, but could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact.

To evaluate the impacts of projects on global climate change, the PCAPCD has established significance thresholds for GHG emissions. Significance thresholds used in this air quality study are from the PCAPCD document *Placer County Air Pollution Control District Policy – Review of Land Use Projects Under CEQA* (Placer County Air Pollution Control District 2016a). The PCAPCD GHG emissions thresholds are shown in **Table 5**. The thresholds shown in **Table 5** are expressed in metric tons of CO<sub>2</sub> equivalent units of measure (MT CO<sub>2</sub>e), based on the global warming potential of the individual pollutants.

**Table 5.  
Placer County Air Pollution Control District  
Greenhouse Gas Significance Thresholds**

<b>Greenhouse Gas Thresholds</b>			
<b>Bright-line Threshold 10,000 MT CO<sub>2</sub>e/yr</b>			
<b>Efficiency Matrix</b>			
<b>Residential</b>		<b>Non-residential</b>	
<b>Urban</b>	<b>Rural</b>	<b>Urban</b>	<b>Rural</b>
(MT CO <sub>2</sub> e/capita)		(MT CO <sub>2</sub> e/1,000sf)	
<b>4.5</b>	<b>5.5</b>	<b>26.5</b>	<b>27.3</b>
<b>De Minimis Level 1,100 MT CO<sub>2</sub>e/yr</b>			

Source: Placer County Air Pollution Control District 2016b.

The PCAPCD document *Placer County Air Pollution Control District Policy – California Environmental Quality Act Thresholds of Significance* (Placer County Air Pollution Control District 2016b) notes the following in describing how each of the thresholds in **Table 5** should be applied.

1. “Bright - line Threshold of 10,000 metric tons of CO<sub>2</sub>e per year for the construction and operational phases of land use projects as well as the stationary source projects
2. “Efficiency Matrix for the operational phase of land use development projects when emissions exceed the De Minimis Level, and
3. “De Minimis Level for the operational phases of 1,100 metric tons of CO<sub>2</sub>e per year.”

The *Placer County Air Pollution Control District Policy – California Environmental Quality Act Thresholds of Significance* notes the following in describing how each of the thresholds should be used in determining the significance of GHG emissions:

- “GHG emissions from projects that exceed 10,000 MT CO<sub>2</sub>e/yr would be deemed to have a cumulatively considerable contribution to global climate change.”
- “The De Minimis Level for the operational phases of 1,100 MT CO<sub>2</sub>e/yr represents an emissions level which can be considered as less than cumulatively considerable and be excluded from the further GHG impact analysis.”
- “Projects with GHG emissions which exceed the De Minimis Level of 1,100 MT CO<sub>2</sub>e/yr, but less than 10,000 MT CO<sub>2</sub>e/yr can still be found less than cumulatively considerable when the result of project related efficiency analysis would meet one of conditions in the efficiency matrix for the applicable land use setting and land use type provided.”

Implementation of the proposed project would contribute to increases of GHG emissions that are associated with global climate change. Estimated GHG emissions attributable to future development would be primarily associated with increases of CO<sub>2</sub> and other GHG pollutants, such as methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O), from mobile sources and utility usage. The proposed project’s short-term construction-related and long-term operational GHG emissions were estimated using the CalEEMod software (California Air Pollution Control Officers Association 2016). CalEEMod is a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify GHG emissions from land use projects. The model quantifies direct GHG emissions from construction and operation (including vehicle use), as well as indirect GHG emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. Emissions are expressed in annual metric tons of CO<sub>2</sub> equivalent units of measure (MT CO<sub>2</sub>e).

#### **4.1.1 Short-Term GHG Emissions**

As shown in **Table 6**, short-term GHG emissions associated with construction of the Rocklin Self Storage Project are estimated to be 416.52 MT CO<sub>2</sub>e per year. This amount is less than the 10,000 MT CO<sub>2</sub>e per year Bright-line Threshold adopted by the PCAPCD. Therefore, this impact is considered to be less than significant and no mitigation measures are required.

#### **4.1.2 Long-Term GHG Emissions**

The long-term operational GHG emissions estimates incorporate potential area source and vehicle emissions, emissions associated with utility and water usage, and the generation of wastewater and solid waste. As shown in **Table 6**, operational emissions associated with the Rocklin Self Storage Project are estimated to be 451.69 MT CO<sub>2</sub>e per year. This amount is less than the 1,100 MT CO<sub>2</sub>e per year De Minimis Level significance threshold adopted by the



PCAPCD. Therefore, this impact is considered to be less than significant and no mitigation measures are required.

**Table 6. Greenhouse Gas Emissions**

<b>Emissions Category</b>	<b>Carbon Dioxide (CO<sub>2</sub>)</b>	<b>Methane (CH<sub>4</sub>)</b>	<b>Nitrous Oxide (N<sub>2</sub>O)</b>	<b>Carbon Dioxide Equivalent (CO<sub>2</sub>e)</b>
<u>Construction-Related Emissions</u>				
2019 Construction Emissions	414.50	0.08	0.00	416.52
<u>Operational Emissions</u>				
Area Source	0.00	0.00	0.00	0.00
Energy	103.20	0.01	0.00	103.96
Mobile Source	244.63	0.01	0.00	244.89
Waste	20.37	1.20	0.00	50.47
Water	26.44	0.81	0.02	52.36
<b>Total Operational Emissions</b>	<b>394.63</b>	<b>2.03</b>	<b>0.02</b>	<b>451.69</b>
<p>Source: Emissions values are from the CalEEMod Emissions Model (<a href="http://www.caleemod.com">http://www.caleemod.com</a>)</p> <p>Notes: All values are in metric tons per year (MT/yr).</p> <p>Total may not equal sum of components due to rounding.</p>				

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## **REFERENCES**

### **Publications Cited**

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### **Personal Communications**

Inthavong, Carter. Domum. October 22, 2018 E-mail message to Wayne Shijo, KD Anderson & Associates.

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## **TECHNICAL APPENDIX**

### **CalEEMod MODEL OUTPUT FILES**