

OCT 16 2013

Notice of Determination

BY FREDDIE OAKLEY, CLERK  
*[Signature]*  
DEPUTY

Appendix D

TO:

Office of Planning and Research  
P.O. Box 3044  
Sacramento, CA 95812-3044

County Clerk  
County of Yolo  
625 Court Street, Room B01  
Woodland, CA 95695

FROM: LINDA SMITH

Woodland-Davis Clean Water Agency  
c/o Davis Public Works  
1717 5th Street  
Davis, Ca 95616  
(530) 757-5673

Subject: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2006042175

Project Title: Davis-Woodland Water Supply Project ("DWWSP")

Project Location (include county): Yolo County (see 2007 DWWSP EIR for more-detailed description)

Project Description: Sacramento River diversion, conveyance pipelines, water treatment plant and distribution pipelines (see 2007 DWWSP EIR for more-detailed project description).

This is to advise that on October 10, 2013, the Woodland-Davis Clean Water Agency ("WDCWA"), acting as CEQA lead agency, approved addendum #5 to the EIR for the DWWSP that the City of Davis (then acting as CEQA lead agency) certified on October 16, 2007. In its Resolution No. 2013-12, WDCWA approved addendum #5 and found and determined that, considering the changes in the project are described in addendum #5, the 2007 EIR remains adequate and no subsequent EIR or further CEQA review is required for the DWWSP.

This is to certify that copies of WDCWA Resolution No. 2013-12 and the approved CEQA addendum are available to the General Public at: Woodland-Davis Clean Water Agency, c/o Davis Public Works, 1717 5th Street, Davis, CA 95616.

Signature (Public Agency) *Dennis M. Diemer* Title: General Manager  
(Mr. Dennis M. Diemer)  
Date: 10-16-13 Date Received filing at OPR: 10-16-2013

RECEIVED  
OCT 16 2013  
STATE CLEARING HOUSE

OCT 16 2013

Notice of Determination

BY Freddie Oakley, Clerk  
*Linda Smith*  
DEPUTY

Appendix D

LINDA SMITH

TO:

Office of Planning and Research  
P.O. Box 3044  
Sacramento, CA 95812-3044

County Clerk  
County of Yolo  
625 Court Street, Room B01  
Woodland, CA 95695

FROM:

Woodland-Davis Clean Water Agency  
c/o Davis Public Works  
1717 5th Street  
Davis, Ca 95616  
(530) 757-5673

**Subject:** Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

State Clearinghouse Number (if submitted to State Clearinghouse): 2006042175

Project Title: Davis-Woodland Water Supply Project ("DWWSP")

Project Location (include county): Yolo County (see 2007 DWWSP EIR for more-detailed description)

Project Description: Sacramento River diversion, conveyance pipelines, water treatment plant and distribution pipelines (see 2007 DWWSP EIR for more-detailed project description).

This is to advise that on October 10, 2013, the Woodland-Davis Clean Water Agency ("WDCWA"), acting as CEQA lead agency, approved addendum #5 to the EIR for the DWWSP that the City of Davis (then acting as CEQA lead agency) certified on October 16, 2007. In its Resolution No. 2013-12, WDCWA approved addendum #5 and found and determined that, considering the changes in the project are described in addendum #5, the 2007 EIR remains adequate and no subsequent EIR or further CEQA review is required for the DWWSP.

This is to certify that copies of WDCWA Resolution No. 2013-12 and the approved CEQA addendum are available to the General Public at: Woodland-Davis Clean Water Agency, c/o Davis Public Works, 1717 5th Street, Davis, CA 95616.

Signature (Public Agency) *Dennis M. Diemer* Title: General Manager  
(Mr. Dennis M. Diemer)

Date: 10-16-13 Date Received filing at OPR: \_\_\_\_\_

POSTED OCT 16 2013 TO 12/16/13

N 13-72

**RESOLUTION NO. 2013 - 12**

**A RESOLUTION OF THE BOARD OF DIRECTORS  
OF THE WOODLAND-DAVIS CLEAN WATER AGENCY  
APPROVING CEQA ADDENDUM NO. 5 TO PROJECT FINAL EIR,  
APPROVING UPDATE TO AIR QUALITY EMISSIONS MODELING,  
AND MAKING RELATED FINDINGS**

WHEREAS, in 2007, prior to formation of the Woodland-Davis Clean Water Agency (“Agency”), the City of Davis certified the Davis-Woodland Water Supply Project Final Environmental Impact Report (“Final EIR”) and the Cities of Davis and Woodland approved the Project;

WHEREAS, the Cities of Davis and Woodland approved a Joint Powers Agreement forming the Agency in 2009, in order for the Agency to pursue the development of the Davis-Woodland Water Supply Project (“Project”) and, pursuant to the Joint Powers Agreement, the Agency has assumed the California Environmental Quality Act (“CEQA”) lead agency role for the Project;

WHEREAS, in 2011, the Agency approved Final EIR Addendum No. 1 concerning changes in the water/aquatic resources regulatory setting and relating to a water right purchase agreement;

WHEREAS, in 2012, the Agency approved Final EIR Addendum No. 2 concerning changes to the location of the proposed Regional Water Treatment Facility;

WHEREAS, in 2012, the Agency approved Final EIR Addendum No. 3 concerning changes to the project raw water and Woodland finished water pipeline alignments;

WHEREAS, in 2012, the Agency approved Final EIR Addendum No. 4 concerning changes to the Davis finished water pipeline alignment;

WHEREAS, since certification of the Final EIR, the Agency has sought funding through a loan from the State Revolving Fund Loan program which requires an update to the air quality emissions modeling prepared for the Final EIR;

WHEREAS, in light of this proposed update to the air quality emissions modeling, the Agency has prepared Addendum No. 5 to the Final EIR (“Addendum No. 5”) pursuant to CEQA Guidelines section 15164 to evaluate whether this change results in new significant impacts beyond those already identified and mitigated for in the Final EIR or results in substantially more severe impacts than disclosed in the Final EIR;

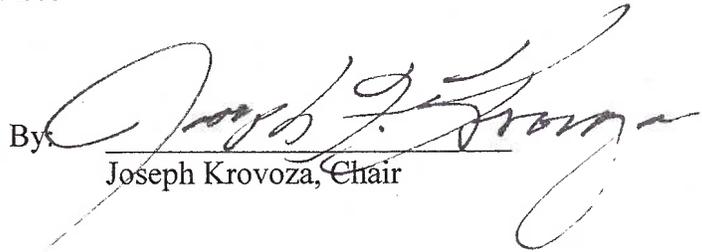
WHEREAS, Addendum No. 5 prepared by Agency environmental consultants and staff concludes that “the changes in the regulatory environment related to Air Quality since certification of the 2007 DWWSP EIR will not result in any new or more severe impacts than those discussed in the 2007 DWWSP EIR. None of the conditions or circumstances that would require preparation of a subsequent or supplemental EIR pursuant to Public Resources Code Section 21166 exists for the proposed project with these changes;”

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Woodland-Davis Clean Water Agency as follows:

1. The Board approves Addendum No. 5 in the form presented at this meeting.
2. The Board has reviewed and considered Addendum No. 5 in light of the 2007 Final EIR.
3. In accordance with Public Resources Code section 21166 and CEQA Guidelines section 15162, and based on the Final EIR and Addendum No. 5, the Board finds and determines as follows:
  - a. The potential environmental effects of the Project have been analyzed, considered and mitigated through the Final EIR.
  - b. In Addendum No. 5, the Agency has evaluated and considered the update to the air quality emissions modeling. Addendum No. 5 analyzed the change and concluded that it does not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects, and the changes with respect to the Project circumstances do not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
  - c. The Board is not aware of any other new information of substantial importance that discloses that the Project will have other or more severe significant environmental effects not previously discussed or that previously rejected or other mitigation measures or alternatives are now feasible and effective.
  - d. Therefore, the Final EIR remains adequate and no subsequent EIR or further CEQA environmental analysis is required for the Project.
4. The Board authorizes and directs the General Manager to prepare and file a CEQA Notice of Determination reflecting this determination.

PASSED AND ADOPTED by the Board of Directors of the Woodland-Davis Clean Water Agency on this 10<sup>th</sup> day of October 2013 by the following vote:

AYES: J. Krovoza, W. Marble, S. Davies, B. Lee  
NOES: none  
ABSTAIN: none  
ABSENT: none

By   
Joseph Krovoza, Chair

Attest:

  
Lyianne Mehlhaff, Secretary



Central Valley Regional Water Quality Control Board

RECEIVED

27 September 2013

SEP 30 2013

Dennis Diemer  
Woodland-Davis Clean Water Agency  
Davis Public Works  
1717 5<sup>th</sup> Street  
Davis, CA 95616

WOODLAND DAVIS  
CLEAN WATER AGENCY

CERTIFIED MAIL  
7013 1090 0001 3130 2809

**COMMENTS TO REQUEST FOR REVIEW FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT ADDENDUM NO. 5, DAVIS-WOODLAND WATER SUPPLY PROJECT, SCH NO. 2006042175, YOLO COUNTY**

Pursuant to the State Clearinghouse's 18 September 2013 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Draft Environmental Impact Report Addendum No. 5* for the Davis-Woodland Water Supply Project, located in Yolo County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

**Construction Storm Water General Permit**

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

[http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/constpermits.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml).

### **Phase I and II Municipal Separate Storm Sewer System (MS4) Permits<sup>1</sup>**

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:

[http://www.waterboards.ca.gov/centralvalley/water\\_issues/storm\\_water/municipal\\_permits/](http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/).

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:

[http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/phase\\_ii\\_municipal.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml)

### **Industrial Storm Water General Permit**

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:

[http://www.waterboards.ca.gov/centralvalley/water\\_issues/storm\\_water/industrial\\_general\\_permits/index.shtml](http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml).

### **Clean Water Act Section 404 Permit**

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

---

<sup>1</sup> Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

**Clean Water Act Section 401 Permit – Water Quality Certification**

If an USACOE permit, or any other federal permit, is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

**Waste Discharge Requirements**

If USACOE determines that only non-jurisdictional waters of the State (i.e., “non-federal” waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:

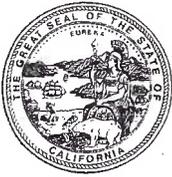
[http://www.waterboards.ca.gov/centralvalley/help/business\\_help/permit2.shtml](http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml).

If you have questions regarding these comments, please contact me at (916) 464-4684 or [tcleak@waterboards.ca.gov](mailto:tcleak@waterboards.ca.gov).



*for* Trevor Cleak  
Environmental Scientist

cc: State Clearinghouse Unit, Governor's Office of Planning and Research, Sacramento



EDMUND G. BROWN JR.  
GOVERNOR

STATE OF CALIFORNIA  
GOVERNOR'S OFFICE of PLANNING AND RESEARCH  
STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX  
DIRECTOR

October 4, 2013

RECEIVED

OCT 07 2013

WOODLAND DAVIS  
CLEAN WATER AGENCY

Dennis Diemer  
Woodland Davis Clean Water Agency (WDCWA)  
1717 Fifth Street  
Davis, CA 95616

Subject: Davis Woodland Water Supply Project (DWWSP) Amendment No. 5  
SCH#: 2006042175

Dear Dennis Diemer:

The State Clearinghouse submitted the above named Addendum to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on October 3, 2013, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan  
Director, State Clearinghouse

Enclosures  
cc: Resources Agency

**Document Details Report  
State Clearinghouse Data Base**

**SCH#** 2006042175  
**Project Title** Davis Woodland Water Supply Project (DWWSP) Amendment No. 5  
**Lead Agency** Davis, City of

---

**Type** ADM Addendum

**Description** Note: Addendum

---

Since certification of the Final DWWSP EIR in 2007 the WDCWA has sought funding through a loan from the State Water Resource Control Board (SWRCB) State Revolving Fund Loan program which requires compliance with the General Conformity Rule for the Clean Air Act. In order to demonstrate compliance with the General Conformity Rule, the WDCWA has prepared this addendum #5, which provides an update to the air quality emissions modeling prepared for the 2007 DWWSP EIR.

---

**Lead Agency Contact**

**Name** Dennis Diemer  
**Agency** Woodland Davis Clean Water Agency (WDCWA)  
**Phone** 530 757-5673 **Fax**  
**email**  
**Address** 1717 Fifth Street  
**City** Davis **State** CA **Zip** 95616

---

**Project Location**

**County** Yolo  
**City** Woodland, Davis  
**Region**  
**Lat / Long**  
**Cross Streets** Various  
**Parcel No.** Multiple parcels  
**Township** **Range** **Section** **Base**

---

**Proximity to:**

**Highways** I-5  
**Airports** Sacramento Int'l  
**Railways** Sierra Northern  
**Waterways** Sacramento River, Cache Creek, Willow Slough, Willow Slough Bypass  
**Schools**  
**Land Use** Multiple land use designations.

---

**Project Issues** Air Quality

---

**Reviewing Agencies** Resources Agency; Office of Emergency Management Agency, California; Department of Fish and Wildlife, Region 2; Office of Historic Preservation; Department of Parks and Recreation; Central Valley Flood Protection Board; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 3 S; CA Department of Public Health; State Water Resources Control Board, Division of Water Rights; Regional Water Quality Control Bd., Region 5 (Sacramento); Native American Heritage Commission; State Lands Commission

---

**Date Received** 09/18/2013 **Start of Review** 09/18/2013 **End of Review** 10/03/2013



EDMUND G. BROWN, JR.  
GOVERNOR

MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

27 September 2013

RECEIVED

clear  
10/3/13  
c

SEP 30 2013

Dennis Diemer  
Woodland-Davis Clean Water Agency  
Davis Public Works  
1717 5<sup>th</sup> Street  
Davis, CA 95616

STATE CLEARING HOUSE

CERTIFIED MAIL

7013 1090 0001 3130 2809

**COMMENTS TO REQUEST FOR REVIEW FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT ADDENDUM NO. 5, DAVIS-WOODLAND WATER SUPPLY PROJECT, SCH NO. 2006042175, YOLO COUNTY**

Pursuant to the State Clearinghouse's 18 September 2013 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Draft Environmental Impact Report Addendum No. 5* for the Davis-Woodland Water Supply Project, located in Yolo County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

**Construction Storm Water General Permit**

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

[http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/constpermits.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml).

### **Phase I and II Municipal Separate Storm Sewer System (MS4) Permits<sup>1</sup>**

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:

[http://www.waterboards.ca.gov/centralvalley/water\\_issues/storm\\_water/municipal\\_permits/](http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/).

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:

[http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/phase\\_ii\\_municipal.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml)

### **Industrial Storm Water General Permit**

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:

[http://www.waterboards.ca.gov/centralvalley/water\\_issues/storm\\_water/industrial\\_general\\_permits/index.shtml](http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml).

### **Clean Water Act Section 404 Permit**

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

---

<sup>1</sup> Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

**Clean Water Act Section 401 Permit – Water Quality Certification**

If an USACOE permit, or any other federal permit, is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

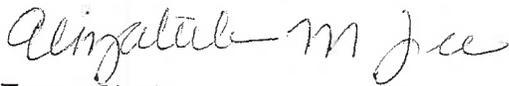
**Waste Discharge Requirements**

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:

[http://www.waterboards.ca.gov/centralvalley/help/business\\_help/permit2.shtml](http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml).

If you have questions regarding these comments, please contact me at (916) 464-4684 or [tleak@waterboards.ca.gov](mailto:tleak@waterboards.ca.gov).



*for* Trevor Cleak  
Environmental Scientist

cc: State Clearinghouse Unit, Governor's Office of Planning and Research, Sacramento

# DAVIS-WOODLAND WATER SUPPLY PROJECT

## Environmental Impact Report Addendum No. 5

State Clearinghouse No. 2006042175

Prepared for  
Woodland-Davis Clean Water Agency

September 2013



# DAVIS-WOODLAND WATER SUPPLY PROJECT

## Environmental Impact Report Addendum No. 5

State Clearinghouse No. 2006042175

Prepared for  
Woodland-Davis Clean Water Agency

September 2013

2600 Capitol Avenue  
Suite 200  
Sacramento, CA 95816  
916.564.4500  
[www.esassoc.com](http://www.esassoc.com)

Los Angeles

Oakland

Orlando

Palm Springs

Petaluma

Portland

San Diego

San Francisco

Santa Cruz

Seattle

Tampa

Woodland Hills

210676

# TABLE OF CONTENTS

---

## Davis Woodland Water Supply Project EIR Addendum #5

|  | <u>Page</u> |
|--|-------------|
| <b>1. Background and Purpose of this Addendum</b>  | <b>1-1</b>  |
| 1.1 Background   | 1-1         |
| 1.2 Purpose of the EIR Addendum  | 1-2         |
| <b>2. Description of Project Changes</b>   | <b>2-1</b>  |
| 2.1 Project Overview   | 2-1         |
| 2.2 Air Quality Emissions Modeling Update  | 2-1         |
| <b>3. Analysis of Potential Environmental Effects</b>                                      | <b>3-1</b>  |
| 3.1 Introduction   | 3-1         |
| 3.2 Air Quality  | 3-1         |
| 3.2.1 2007 DWWSP EIR Air Quality Impact Summary  | 3-1         |
| 3.2.2 Updated Yolo County Attainment Status  | 3-2         |
| 3.2.3 General Conformity   | 3-3         |
| 3.2.4 Updated Air Quality Modeling Analysis – Methodology, Results,<br>Mitigation Measures | 3-4         |
| 3.2.5 Updated Air Quality Modeling Analysis – Conclusions                                  | 3-6         |
| 3.2.6 Cumulative and Growth Inducing Effects   | 3-6         |
| 3.3 Conclusion   | 3-6         |
| 3.4 References   | 3-6         |

### Appendix

#### A. Air Quality Technical Appendix

#### List of Tables

|  |     |
|--|-----|
| 1. 2007 DWWSP EIR Table 3.8-7 Construction Emissions Estimates | 3-2 |
| 2. 2007 DWWSP EIR Table 3.8-8 Operations Emissions Estimates   | 3-2 |
| 3. Yolo County Attainment Status                               | 3-3 |
| 4. Construction Emissions Estimates                            | 3-4 |

# SECTION 1

## Background and Purpose of this Addendum

---

### 1.1 Background

The Cities of Davis, Woodland, and the University of California, Davis (UC Davis) (Project Partners) proposes to implement the Davis Woodland Water Supply Project (DWWSP or proposed project). The proposed project involves development of a new surface water supply for the Project Partners and consists of: an intake/diversion structure on the Sacramento River, a raw water conveyance pipeline between the intake/diversion structure to a new regional water treatment facility (RWTF), with distribution pipelines conveying treated surface water from the water treatment plant to each of the three Project Partners. Other local improvements such as local distribution pipelines and storage facilities will be constructed independently by each Project Partner. The project also includes the acquisition of a new water right permit for the diversion and use of surface water from the Sacramento River and the transfer and acquisition of existing water right licenses and possibly one or more other water transfers to authorize the DWWSP to divert water during periods when surface water diversions from the Sacramento River under the DWWSP's water right permit will be constrained.

With the City of Davis as the lead agency, the Project Partners prepared an Environmental Impact Report (EIR) on the DWWSP (State Clearinghouse (SCH) # 2006042175) in accordance with the requirements of the California Environmental Quality Act (CEQA). The Notice of Preparation (NOP) for the EIR was published on April 28, 2006 and circulated to the public, local, state and federal agencies, and other interested parties. In addition to the 45-day public and agency comment period, public scoping sessions were held on May 18, 2006 in Woodland and May 22, 2006 in Davis. The Draft EIR was published on April 9, 2007 and circulated for public and agency review for a 76-day public review period ending June 25, 2007. Two public meetings on the Draft EIR were held by City of Davis on April 23 and May 2, 2007 and one public meeting was held by the City of Woodland on May 16, 2007. On October 16, 2007, the City of Davis, as acting CEQA lead agency, adopted Resolution No. 07-168, Series 2007, which certified the final EIR, adopted CEQA findings, a statement of overriding considerations and a mitigation monitoring and reporting program, and approved the DWWSP. On November 6, 2007, the City of Woodland, acting as a CEQA responsible agency, adopted Resolution No. 4878, which adopted CEQA findings and the mitigation monitoring and reporting program and approved the DWWSP.

Since the certification of the EIR, the Cities of Woodland and Davis have formed the Woodland Davis Clean Water Agency (WDCWA), a joint powers authority (JPA), to implement the DWWSP. WDCWA has proceeded with implementation of the DWWSP, including additional project planning in support of the engineering design and project construction phases, financial planning, property acquisition, and acquisition of project permits and approvals. On April 21, 2011, the WDCWA, acting

as CEQA lead agency, approved an addendum (addendum #1) to the EIR for the DWWSP that the City of Davis (then acting as CEQA lead agency) certified on October 16, 2007. Addendum #1 provided an assessment of changes to Delta water and aquatic resources since the 2007 DWWSP EIR as well as minor refinements to an element of the DWWSP involving the proposed water transfer from the Conway Preservation Group (CPG) to the DWWSP. In its Resolution No. 2011-03, WDCWA approved addendum #1 and found and determined that no subsequent EIR or further CEQA review was required. On June 21, 2012, WDCWA approved addendum #2 to the EIR, which provided an assessment of changes to the location of the proposed RWTF. The WDCWA approved Resolution No. 2012-01 and found and determined that no subsequent EIR or further CEQA review was required. On October 18, 2012, WDCWA approved Addendum #3 with Resolution No. 2012-03, related to revisions the project raw water and Woodland finished water pipeline alignments, which concluded that no subsequent EIR or further CEQA review was required. On December 20, 2012, WDCWA approved Addendum #4 with Resolution No. 2012-04, related to revisions the Davis finished water pipeline alignment, which concluded that no subsequent EIR or further CEQA review was required.

Since certification of the Final DWWSP EIR in 2007, and approval of addenda #1 through #4, the WDCWA has sought funding through a loan from the State Water Resources Control Board (SWRCB) State Revolving Fund (SRF) Loan program which requires compliance with the General Conformity Rule for the Clean Air Act (CAA). The City of Woodland and WDCWA are also seeking a California Department of Public Health (CDPH) Safe Drinking Water State Revolving Fund (SDWSRF) loan for the City of Woodland's portion of the proposed project. In order to demonstrate compliance with the General Conformity Rule, the WDCWA has prepared this addendum #5, which provides an update to the air quality emissions modeling prepared for the 2007 DWWSP EIR.

## **1.2 Purpose of the EIR Addendum**

According to Section 15164(a) of the CEQA Guidelines, the lead agency or a responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 requiring preparation of a subsequent EIR have occurred. Section 15162 of the Guidelines lists the conditions that would require the preparation of a subsequent EIR rather than an addendum. These include the following:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time of the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
  - a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

- b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;
- c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

This Addendum documents that the updated air quality emissions modeling does not trigger any of the Section 15162 conditions described above, and that the preparation of an addendum therefore is appropriate.

## **SECTION 2**

---

# **Description of Project Changes**

## **2.1 Project Overview**

The DWWSP involves development of a new surface water supply for the Project Partners and consists of: an intake/diversion structure on the Sacramento River, a raw water conveyance pipeline between the intake/diversion structure and a new RWTF with distribution pipelines conveying treated surface water from the water treatment plant to each of the three Project Partners. Other local improvements such as local distribution pipelines will be required by each Project Partner.

## **2.2 Air Quality Emissions Modeling Update**

Since certification of the Final DWWSP EIR in 2007, the WDCWA has sought funding through a loan from SRF loan programs. As part of the terms of the loan, project construction and operation must demonstrate compliance with the General Conformity Rule for the CAA. To demonstrate compliance with the General Conformity Rule, the WDCWA has prepared an update to the air quality emissions modeling that was completed for the 2007 DWWSP EIR. Generally, the assumptions used for the air quality emissions modeling analysis in the 2007 DWWSP EIR, including equipment type, equipment quantities, and worker truck trips, are the same for the revised air quality emissions modeling update. The amount of total land area to be disturbed was revised down from 200 acres to 40 acres, as this more accurately reflects the total acreage of land to be disturbed for the project. Lastly, project construction emissions estimates conservatively assume that all components of the Project (WTP, Intake, raw and treated water pipelines) would overlap during construction, which presents a worse case construction emissions scenario. Section 3 of this document evaluates the environmental effects of the updated air quality emissions modeling in comparison to the impacts analyzed in the 2007 DWWSP EIR. The overall conclusions of the analysis are presented in Section 3.3. A detailed technical air quality emissions modeling appendix is provided in Appendix A.

## **SECTION 3**

---

# **Analysis of Potential Environmental Effects**

### **3.1 Introduction**

The 2007 DWWSP EIR evaluated the following environmental issues: surface and groundwater resources, hydrology and water quality, land use and agriculture, geology, soils, and seismicity, air quality, noise, hazards and hazardous materials, public health, transportation, public services and utilities, cultural resources, recreation, aesthetics, growth inducing effects, and cumulative effects. Because the project changes discussed in this addendum are related specifically to air quality, the analysis contained in this addendum is focused only on air quality resources. This addendum serves to provide an update to the air quality analysis that was done for the 2007 DWWSP EIR consistent with the requirements of SRF Loan Programs. Because the updated air quality emissions modeling would have no effect on the physical location of project facilities or assumptions related to project construction and operation, all impacts related to the other CEQA resource topic areas remain unchanged from the 2007 DWWSP EIR and are not discussed further in this addendum.

### **3.2 Air Quality**

#### **3.2.1 2007 DWWSP EIR Air Quality Impact Summary**

Section 3.8 of the 2007 DWWSP EIR concluded that project construction activities would result in potentially significant unavoidable construction-related air emissions consisting of exhaust emissions including reactive organic gas (ROG) and nitrogen oxides (NO<sub>x</sub>) from vehicles and other equipment, and fugitive dust emissions, including PM<sub>10</sub> (particulate matter that is 10 microns in diameter), associated with trenching, excavation, and grading (Table 1). Air quality emissions associated with construction activities would be reduced, but not to less than significant, with the incorporation of 2007 DWWSP EIR Mitigation Measure 3.8-1a through 3.8-1d which includes measures to reduce construction related exhaust and particulate emissions consistent with the Yolo-Solano Air Quality Management District. Impacts related to odor were determined to be less than significant given that water supply facilities are not a typical odor generating use.

**TABLE 1  
2007 DWWSP EIR TABLE 3.8-7  
CONSTRUCTION EMISSIONS ESTIMATES**

| Project Construction                           | Unmitigated Criteria Pollutant Emissions (lbs/day) –<br>Year 2012 |            |      |
|--|---|------------|------|
|  | ROG   | NOx        | PM10 |
| Off-road Equipment <sup>1</sup>                | 78  | <b>468</b> | 115  |
| On-road Truck and Worker Vehicles <sup>2</sup> | 2   | 24         | 9    |
| Total Construction Emissions                   | 80  | <b>492</b> | 124  |
| YSAQMD Significance Threshold                  | 82  | 82         | 150  |

1. Project construction emissions estimates for off-road equipment were made using URBEMIS 2002, version 8.7. The emissions listed above are for a worse-case day, where it was assumed that all components of the Project (WTP, Intake, raw and treated water pipelines) would overlap during Phase I construction. See Appendix D for more details.
2. EMFAC2007 emission factors were used to calculate on-road vehicle emissions from truck and worker vehicles. Refer to Appendix D for more details.

NOTE: Values in **bold** are in excess of the applicable YSAQMD significance threshold.

SOURCE: ESA, 2006.

Operational emissions for the project would be generated primarily from on-road vehicular traffic. As shown in Table 2, addition of project traffic emissions would be less-than-significant without mitigation. Because operational emissions are well below the significance thresholds they were not modeled as part of the air quality emissions modeling update and are not discussed further in this addendum.

**TABLE 2  
2007 DWWSP EIR TABLE 3.8-8  
OPERATIONS EMISSIONS ESTIMATES**

| Project Operation                                | Unmitigated Criteria Pollutant Emissions (lbs/day) –<br>Year 2015 |     |     |      |
|--|---|-----|-----|------|
|  | ROG   | NOx | CO  | PM10 |
| On-road Truck and Employee Vehicles <sup>1</sup> | 0   | 0   | 2   | 1    |
| YSAQMD Significance Threshold                    | 82  | 82  | 550 | 150  |

1. EMFAC2007 emission factors were used to calculate on-road vehicle emissions from truck and employee vehicles. Refer to Appendix D for more details.

SOURCE: ESA, 2006.

### 3.2.2 Updated Yolo County Attainment Status

The federal Clean Air Act (FCAA) requires the EPA to identify National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. National standards have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, respirable particulate matter (particulate matter less than 10 microns in diameter, PM10), and lead. Pursuant to the 1990

Federal Clean Air Act Amendments, the EPA classifies air basins (or portions thereof) as “in attainment” or “nonattainment” for each criteria air pollutant, based on whether or not the NAAQS had been achieved. Under the California Clean Air Act (CCAA), patterned after the FCAA, areas have been designated as in attainment or nonattainment with respect to the state standards. Table 3 depicts the current attainment status of the project area, which has been revised to incorporate updated designations since the 2007 DWWSP EIR (See Table 3.8-3 from 2007 DWWSP EIR).

**TABLE 3  
YOLO COUNTY ATTAINMENT STATUS**

| Criteria Pollutant <sup>1</sup> | Designation/Classification       |                                   |
|---------------------------------|----------------------------------|-----------------------------------|
|                                 | Federal Standards                | State Standards                   |
| Ozone – one hour                | No Federal Standard <sup>2</sup> | Nonattainment                     |
| Ozone – eight hour              | Nonattainment/ <b>Severe</b>     | <b>Nonattainment-Transitional</b> |
| PM10                            | Unclassified/Attainment          | Nonattainment                     |
| PM2.5                           | <b>Nonattainment</b>             | Unclassified <sup>3</sup>         |
| CO                              | Unclassified/Attainment          | Attainment                        |
| Nitrogen Dioxide                | Unclassified/Attainment          | Attainment                        |
| Sulfur Dioxide                  | Unclassified/Attainment          | Attainment                        |
| Lead (particulate)              | Unclassified/Attainment          | Attainment                        |
| Hydrogen Sulfide                | No Federal Standard              | Unclassified                      |
| Sulfates                        | No Federal Standard              | Attainment                        |
| Visibility-Reducing Particles   | No Federal Standard              | Unclassified                      |

1. TACs are regulated separately from criteria pollutants on both the state and federal levels.

2. Federal One Hour Ozone National Ambient Air Quality Standard was revoked on June 15, 2005

3. “Unclassified” is used as the designation for any area that cannot be classified, on the basis of available information, as meeting or not meeting the national or state air quality standard for the specified pollutant.

NOTE: **Bold** text indicates change in standard from 2007 DWWSP EIR.

SOURCE: California Air Resources Board, 2013. *Area Designation Maps*, <http://www.arb.ca.gov/deg/adm/adm.htm>, page reviewed April 2013.

### 3.2.3 General Conformity

The EPA promulgated the General Conformity Rule on November 30, 1993 in Volume 58 of the Federal Register (58 FR 63214) to implement the conformity provision of Title I, section 176(c)(1) of the Clean Air Act (CAA). Section 176(c)(1) requires that the Federal government not engage in, support, or provide financial assistance for licensing, permitting, or approving any activity not conforming to an approved CAA implementation plan. The approved implementation plan could be a Federal, State, or Tribal Implementation Plan (i.e., FIP, SIP, or TIP). The General Conformity Rule is codified in Title 40 of the Code of Federal Regulations (CFR) Part 51, Subpart W and Part 93, Subpart B, “Determining Conformity of General Federal Actions to State or Federal Implementation Plans.” The General Conformity Rule applies to all Federal actions except highway and transit programs. The latter must comply with the conformity requirements for transportation plans in 40 CFR Part 93, Subpart A. As described above, the WDCWA has sought funding through a loan from the SWRCB SRF Loan program which requires demonstrated compliance with the General Conformity Rule.

Development under the DWWSP would occur in Yolo County and would be subject to the General Conformity Rule, given that the County is a severe nonattainment area for the national 8 hour ozone standard, as well as nonattainment for the national PM2.5 standard (as shown above in Table 1). The applicable de minimis thresholds for Yolo County are 25 tons per year of volatile organic compounds (VOC), 25 tons per year of nitrogen oxides (NOx), and 100 tons per year of PM2.5.

### 3.2.4 Updated Air Quality Emissions Modeling Analysis – Methodology, Results, Mitigation Measures

Project-related, short-term construction air quality impacts were re-modeled with CalEEMod (version 2013.2) in order to determine compliance with the federal General Conformity Rule. The 2007 DWWSP EIR utilized the CARB Urban Emissions (URBEMIS) 2002 model, version 8.7, to quantify off-road equipment construction emissions. The 2007 DWWSP EIR also utilized the EMFAC2007 emission factors to estimate emissions from on-road worker vehicles and haul trucks. The YSAQMD, similar to most air districts, is now transitioning the suggested model from the URBEMIS to the CalEEMod software. The CalEEMod 2013.2 version incorporates the latest OFFROAD2011 and EMFAC2011 emission factors, whereas the URBEMIS model used for the 2007 DWWSP EIR incorporates the older OFFROAD2007 and EMFAC2007 emission factors.

A total of 40 acres was assumed to be disturbed during Project construction (Down from 200 acres assumed in the 2007 DWWSP EIR). Equipment types and quantities, as well as worker and truck trips, were based on assumptions included in the 2007 DWWSP EIR. The results of the revised modeling are depicted below in Table 4. The updated model input and output sheets are presented in Appendix A.

**TABLE 4  
CONSTRUCTION EMISSIONS ESTIMATES**

| Project Construction                     | Criteria Pollutant Emissions (tons/year) – Year 2015 |             |       |       |                   |
|--|--|-------------|-------|-------|-------------------|
|  | ROG  | NOx         | CO    | PM2.5 | PM10              |
| Total Unmitigated Construction Emissions | 4.7  | <b>45.6</b> | 19.43 | 4.5   | 7.31              |
| Total Mitigated Construction Emissions   | 2.1  | <b>22.3</b> | 24.97 | 2.6   | 7.29              |
| General Conformity de minimis Threshold  | 25   | 25          | n/a   | 100   | n/a               |
| YSAQMD Threshold                         | 10   | 10          | n/a   | n/a   | 14.6 <sup>1</sup> |

1. Value converted to Tons/Year. YSAQMD Standard is expressed in lbs/day.

NOTE: Project construction emissions estimates were made using CalEEMod and conservatively assume that all components of the Project (WTP, Intake, raw and treated water pipelines) would overlap during construction. See Appendix A for more details.

Values in bold are in excess of the applicable significance threshold.

SOURCE: ESA, 2013.

Note that CO is a localized pollutant of concern. The majority of substantial, prolonged construction activities for all project facilities would not occur within one half mile of existing sensitive uses. As a result, construction activities for the proposed project would be temporary and would not emit CO in quantities that could pose health concerns. Additionally, project operations would not result in or contribute to CO concentrations that exceed the California 1-hour ambient air quality standard of 20 ppm or the 8-hour standard of 9 ppm because of the negligible amount of project-generated trips and equipment activity for operation and maintenance of project facilities. As a result, increases in mobile-source emissions of CO associated with project operations would not be anticipated to result in or contribute substantially to an air quality violation and construction and operation of the proposed project would not result in significant localized concentrations of criteria pollutants.

As shown in Table 4 above, annual emissions of unmitigated ROG and PM2.5 would not exceed the federal General Conformity de minimis thresholds. Annual unmitigated emissions of NOx would exceed the de minimis threshold. However, with incorporation of revised Mitigation Measure 3.8-1a (see below), the Project would result in less than significant emissions of NOx related to the General Conformity de minimis threshold. When compared with the YSAQMD threshold for NOx, air quality emissions associated with construction activities would be reduced, but not to less than significant, even with the incorporation of mitigation. This is consistent with the significant and unavoidable findings of the 2007 DWWSP EIR.

**Mitigation Measures.** The 4<sup>th</sup> bullet of Mitigation Measure 3.8-1a included in the 2007 DWWSP EIR has been revised to reflect the most current standards as shown below. Modifications to the following mitigation are included as **bold underlined** text and text removed from the document is indicated by ~~striketrough~~:

**Mitigation Measure 3.8-1a:** During construction, the Project partners shall require feasible<sup>1</sup> NOx mitigation measures, which include:

- All construction diesel engines, which have a rating of 50 hp or more, shall meet, at a minimum, the ~~Tier 2~~ **Tier 3** California Emission Standards for Off-road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, § 2423 (b)(1) unless certified by the onsite AQCMM that such engine is not available for a particular item of equipment. In the event a ~~Tier 2~~ **Tier 3** engine is not available for any off-road engine larger than 50 hp, that engine shall be a **Tier 2** ~~or~~ Tier 1 engine.

Note that the change in this mitigation measure reflects a change in the non-road engine standards from Tier 2 to Tier 3 that have occurred since the certification of the 2007 DWWSP EIR and does not represent a new mitigation measure. The 1998 non-road engine regulations were structured as a 3-tiered progression<sup>2</sup>. Each tier involved a phase-in (by horsepower rating) over several years. Tier 1 standards were phased-in from 1996 to 2000. The more stringent Tier 2 standards took effect from 2001 to 2006, and yet more stringent Tier 3 standards phased-in from 2006 to 2008 (Tier 3

<sup>1</sup> CEQA Public Resource Code §21061.1 defines "feasible" meaning capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

<sup>2</sup> <http://dieselnet.com/standards/us/nonroad.php>

standards applied only for engines from 37-560 kW). As described above for the implementation schedule for EPA Tier Non-road Diesel Engine Emission Standards, Tier 3 standards for non-road engines have been phased-in for several of the engine power categories that had not applied at the time of the 2007 DWWSP EIR.

### **3.2.5 Updated Air Quality Modeling Analysis – Conclusions**

As shown with the updated air quality emissions modeling update, construction and operation of the DWWSP would result in similar potentially significant and unavoidable construction air quality impacts as described in the 2007 DWWSP EIR. Implementation of 2007 DWWSP EIR Mitigation Measure 3.8-1a through 3.8-1d, as updated, would reduce potential construction emissions impacts. Additionally, project construction and operation would not exceed the federal General Conformity de minimis thresholds and no new mitigation measures are required. Therefore, the results of the updated air quality emissions modeling would not alter the conclusions of the 2007 DWWSP EIR, result in any new significant impacts, or substantially increase the severity of the previously identified air quality impacts.

### **3.2.6 Cumulative and Growth Inducing Effects**

The changes in the regulatory environment related to air quality since certification of the 2007 DWWSP EIR do not alter the underlying impact conclusions or growth assumptions of the 2007 DWWSP EIR. Therefore, there would be no change in the cumulative or growth inducing effects of the proposed project. None of the significance conclusions or findings in the Final EIR would be altered, no new significant impact would occur, and none of the previously identified significant impacts would be substantially worsened.

## **3.3 Conclusion**

This addendum documents that the changes associated with the changes in the regulatory environment related to Air Quality since certification of the 2007 DWWSP EIR will not result in any new or more severe impacts than those discussed in the 2007 DWWSP EIR. None of the conditions or circumstances that would require preparation of a subsequent or supplemental EIR pursuant to Public Resources Code Section 21166 exists for the proposed project with these changes.

## **3.4 References**

Environmental Science Associates (ESA). 2007a. Davis Woodland Water Supply Project Draft Environmental Impact Report. Prepared for the City of Davis, U.C. Davis and the City of Woodland, April 2007.

Environmental Science Associates (ESA). 2007b. Davis Woodland Water Supply Project Final Environmental Impact Report. Prepared for the City of Davis, U.C. Davis and the City of Woodland, October 2007.

# Appendix A

## Air Quality Technical Appendix



### Davis Regional Water Construction Yolo County, Annual

#### 1.0 Project Characteristics

---

##### 1.1 Land Usage

| Land Uses               | Size  | Metric            | Lot Acreage | Floor Surface Area | Population |
|-------------------------|-------|-------------------|-------------|--------------------|------------|
| User Defined Industrial | 40.00 | User Defined Unit | 40.00       | 0.00               | 0          |

##### 1.2 Other Project Characteristics

|                                |                                |                                |       |                                  |       |
|--------------------------------|--------------------------------|--------------------------------|-------|----------------------------------|-------|
| <b>Urbanization</b>            | Rural                          | <b>Wind Speed (m/s)</b>        | 6.8   | <b>Precipitation Freq (Days)</b> | 54    |
| <b>Climate Zone</b>            | 2                              |                                |       | <b>Operational Year</b>          | 2015  |
| <b>Utility Company</b>         | Pacific Gas & Electric Company |                                |       |                                  |       |
| <b>CO2 Intensity (lb/MWhr)</b> | 641.35                         | <b>CH4 Intensity (lb/MWhr)</b> | 0.029 | <b>N2O Intensity (lb/MWhr)</b>   | 0.006 |

##### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -  
 Land Use - Assumed 40 acres disturbed  
 Construction Phase - Assumes 2015 worse-case construction year. Used Grading phase to include disturbed area/fugitive dust.  
 Off-road Equipment - Equip type/# from EIR.  
 Trips and VMT - Matched EIR trip assumptions: 45 workers and 224 haul trucks (vendor and soil) daily  
 Grading - Assumed 40 acres disturbed annually; 17,600 CY soil assumed to be imported  
 Construction Off-road Equipment Mitigation - Tier 3 engine minimum and basic fugitive dust controls

| Table Name              | Column Name                | Default Value | New Value |
|-------------------------|----------------------------|---------------|-----------|
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00          | 2.00      |
| tblConstEquipMitigation | NumberOfEquipmentMitigated | 0.00          | 8.00      |

|                           |                            |           |           |
|---------------------------|----------------------------|-----------|-----------|
| tblConstEquipMitigation   | NumberOfEquipmentMitigated | 0.00      | 2.00      |
| tblConstEquipMitigation   | NumberOfEquipmentMitigated | 0.00      | 4.00      |
| tblConstEquipMitigation   | NumberOfEquipmentMitigated | 0.00      | 4.00      |
| tblConstEquipMitigation   | NumberOfEquipmentMitigated | 0.00      | 4.00      |
| tblConstEquipMitigation   | NumberOfEquipmentMitigated | 0.00      | 6.00      |
| tblConstEquipMitigation   | NumberOfEquipmentMitigated | 0.00      | 4.00      |
| tblConstEquipMitigation   | NumberOfEquipmentMitigated | 0.00      | 6.00      |
| tblConstEquipMitigation   | Tier                       | No Change | Tier 3    |
| tblConstEquipMitigation   | Tier                       | No Change | Tier 3    |
| tblConstEquipMitigation   | Tier                       | No Change | Tier 3    |
| tblConstEquipMitigation   | Tier                       | No Change | Tier 3    |
| tblConstEquipMitigation   | Tier                       | No Change | Tier 3    |
| tblConstEquipMitigation   | Tier                       | No Change | Tier 3    |
| tblConstEquipMitigation   | Tier                       | No Change | Tier 3    |
| tblConstEquipMitigation   | Tier                       | No Change | Tier 3    |
| tblConstEquipMitigation   | Tier                       | No Change | Tier 3    |
| tblConstructionPhase      | NumDays                    | 75.00     | 261.00    |
| tblGrading                | AcresOfGrading             | 1,305.00  | 40.00     |
| tblGrading                | MaterialImported           | 0.00      | 17,600.00 |
| tblLandUse                | LotAcreage                 | 0.00      | 40.00     |
| tblOffRoadEquipment       | OffRoadEquipmentUnitAmount | 2.00      | 8.00      |
| tblOffRoadEquipment       | OffRoadEquipmentUnitAmount | 1.00      | 2.00      |
| tblOffRoadEquipment       | OffRoadEquipmentUnitAmount | 2.00      | 4.00      |
| tblOffRoadEquipment       | OffRoadEquipmentUnitAmount | 2.00      | 6.00      |
| tblProjectCharacteristics | OperationalYear            | 2014      | 2015      |
| tblProjectCharacteristics | UrbanizationLevel          | Urban     | Rural     |
| tblTripsAndVMT            | HaulingTripNumber          | 2,200.00  | 0.00      |
| tblTripsAndVMT            | VendorTripNumber           | 0.00      | 224.00    |

|                |                  |        |       |
|----------------|------------------|--------|-------|
| tblTripsAndVMT | WorkerTripNumber | 103.00 | 45.00 |
|----------------|------------------|--------|-------|

## 2.0 Emissions Summary

### 2.1 Overall Construction

#### Unmitigated Construction

|              | ROG           | NOx            | CO             | SO2           | Fugitive PM10  | Exhaust PM10  | PM10 Total     | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O           | CO2e              |
|--------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Year         | tons/yr       |                |                |               |                |               |                |                |               |               | MT/yr         |                   |                   |               |               |                   |
| 2015         | 4.7041        | 45.6240        | 28.8505        | 0.0446        | 22.9851        | 2.0138        | 24.9989        | 2.6902         | 1.8527        | 4.5428        | 0.0000        | 4,206.4038        | 4,206.4038        | 1.0695        | 0.0000        | 4,228.8638        |
| <b>Total</b> | <b>4.7041</b> | <b>45.6240</b> | <b>28.8505</b> | <b>0.0446</b> | <b>22.9851</b> | <b>2.0138</b> | <b>24.9989</b> | <b>2.6902</b>  | <b>1.8527</b> | <b>4.5428</b> | <b>0.0000</b> | <b>4,206.4038</b> | <b>4,206.4038</b> | <b>1.0695</b> | <b>0.0000</b> | <b>4,228.8638</b> |

#### Mitigated Construction

|              | ROG           | NOx            | CO             | SO2           | Fugitive PM10  | Exhaust PM10  | PM10 Total     | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O           | CO2e              |
|--------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Year         | tons/yr       |                |                |               |                |               |                |                |               |               | MT/yr         |                   |                   |               |               |                   |
| 2015         | 2.1433        | 22.2609        | 29.6859        | 0.0445        | 14.0322        | 0.8873        | 14.9195        | 1.6003         | 0.9789        | 2.5792        | 0.0000        | 4,202.1771        | 4,202.1771        | 1.0683        | 0.0000        | 4,224.6106        |
| <b>Total</b> | <b>2.1433</b> | <b>22.2609</b> | <b>29.6859</b> | <b>0.0445</b> | <b>14.0322</b> | <b>0.8873</b> | <b>14.9195</b> | <b>1.6003</b>  | <b>0.9789</b> | <b>2.5792</b> | <b>0.0000</b> | <b>4,202.1771</b> | <b>4,202.1771</b> | <b>1.0683</b> | <b>0.0000</b> | <b>4,224.6106</b> |

|                   | ROG     | NOx     | CO      | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|-------------------|---------|---------|---------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|--------|--------|--------|
| Percent Reduction | 54.4379 | 51.2079 | -2.8957 | 0.0897 | 38.9509       | 55.9375      | 40.3192    | 40.5128        | 47.1616       | 43.2242     | 0.0000   | 0.1005   | 0.1005    | 0.1187 | 0.0000 | 0.1006 |

## 2.2 Overall Operational

### Unmitigated Operational

|              | ROG                | NOx           | CO                 | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2          | Total CO2          | CH4           | N2O           | CO2e               |
|--------------|--------------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Category     | tons/yr            |               |                    |               |               |               |               |                |               |               | MT/yr         |                    |                    |               |               |                    |
| Area         | 4.0000e-005        | 0.0000        | 3.8000e-004        | 0.0000        |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 7.1000e-004        | 7.1000e-004        | 0.0000        | 0.0000        | 7.6000e-004        |
| Energy       | 0.0000             | 0.0000        | 0.0000             | 0.0000        |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000             |
| Mobile       | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000         | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000             |
| Waste        |                    |               |                    |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000             |
| Water        |                    |               |                    |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000             |
| <b>Total</b> | <b>4.0000e-005</b> | <b>0.0000</b> | <b>3.8000e-004</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b>  | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>7.1000e-004</b> | <b>7.1000e-004</b> | <b>0.0000</b> | <b>0.0000</b> | <b>7.6000e-004</b> |

**2.2 Overall Operational**

**Mitigated Operational**

|              | ROG                | NOx           | CO                 | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2          | Total CO2          | CH4           | N2O           | CO2e               |
|--------------|--------------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| Category     | tons/yr            |               |                    |               |               |               |               |                |               |               | MT/yr         |                    |                    |               |               |                    |
| Area         | 4.0000e-005        | 0.0000        | 3.8000e-004        | 0.0000        |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 7.1000e-004        | 7.1000e-004        | 0.0000        | 0.0000        | 7.6000e-004        |
| Energy       | 0.0000             | 0.0000        | 0.0000             | 0.0000        |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000             |
| Mobile       | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000         | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000             |
| Waste        |                    |               |                    |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000             |
| Water        |                    |               |                    |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000             |
| <b>Total</b> | <b>4.0000e-005</b> | <b>0.0000</b> | <b>3.8000e-004</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b>  | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>7.1000e-004</b> | <b>7.1000e-004</b> | <b>0.0000</b> | <b>0.0000</b> | <b>7.6000e-004</b> |

|                          | ROG           | NOx           | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2     | Total CO2     | CH4           | N2O           | CO2e          |
|--------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Percent Reduction</b> | <b>0.0000</b>  | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> |

**3.0 Construction Detail**

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date   | Num Days Week | Num Days | Phase Description |
|--------------|------------|------------|------------|------------|---------------|----------|-------------------|
| 1            | Grading    | Grading    | 1/1/2015   | 12/31/2015 | 5             | 261      |                   |

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type       | Amount | Usage Hours | Horse Power | Load Factor |
|------------|------------------------------|--------|-------------|-------------|-------------|
| Grading    | Cranes                       | 2      | 8.00        | 226         | 0.29        |
| Grading    | Excavators                   | 8      | 8.00        | 162         | 0.38        |
| Grading    | Graders                      | 2      | 8.00        | 174         | 0.41        |
| Grading    | Off-Highway Tractors         | 4      | 8.00        | 122         | 0.44        |
| Grading    | Off-Highway Trucks           | 4      | 8.00        | 400         | 0.38        |
| Grading    | Other Construction Equipment | 4      | 8.00        | 171         | 0.42        |
| Grading    | Rubber Tired Dozers          | 1      | 8.00        | 255         | 0.40        |
| Grading    | Rubber Tired Loaders         | 6      | 8.00        | 199         | 0.36        |
| Grading    | Scrapers                     | 4      | 8.00        | 361         | 0.48        |
| Grading    | Tractors/Loaders/Backhoes    | 6      | 8.00        | 97          | 0.37        |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Grading    | 41                      | 45.00              | 224.00             | 0.00                | 16.80              | 6.60               | 20.00               | LD_Mix               | HDT_Mix              | HHDT                  |

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

**3.2 Grading - 2015**

**Unmitigated Construction On-Site**

**Acres of Grading: 0**

|               | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O           | CO2e              |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Category      | tons/yr       |                |                |               |               |               |               |                |               |               | MT/yr         |                   |                   |               |               |                   |
| Fugitive Dust |               |                |                |               | 0.8114        | 0.0000        | 0.8114        | 0.4349         | 0.0000        | 0.4349        | 0.0000        | 0.0000            | 0.0000            | 0.0000        | 0.0000        | 0.0000            |
| Off-Road      | 3.6136        | 42.5908        | 23.2291        | 0.0373        |               | 1.9627        | 1.9627        |                | 1.8057        | 1.8057        | 0.0000        | 3,553.0335        | 3,553.0335        | 1.0607        | 0.0000        | 3,575.3088        |
| <b>Total</b>  | <b>3.6136</b> | <b>42.5908</b> | <b>23.2291</b> | <b>0.0373</b> | <b>0.8114</b> | <b>1.9627</b> | <b>2.7741</b> | <b>0.4349</b>  | <b>1.8057</b> | <b>2.2406</b> | <b>0.0000</b> | <b>3,553.0335</b> | <b>3,553.0335</b> | <b>1.0607</b> | <b>0.0000</b> | <b>3,575.3088</b> |

**Unmitigated Construction Off-Site**

|              | ROG           | NOx           | CO            | SO2                | Fugitive PM10  | Exhaust PM10  | PM10 Total     | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4                | N2O           | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|----------------|---------------|----------------|----------------|---------------|---------------|---------------|-----------------|-----------------|--------------------|---------------|-----------------|
| Category     | tons/yr       |               |               |                    |                |               |                |                |               |               | MT/yr         |                 |                 |                    |               |                 |
| Hauling      | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000         | 0.0000        | 0.0000         | 0.0000         | 0.0000        | 0.0000        | 0.0000        | 0.0000          | 0.0000          | 0.0000             | 0.0000        | 0.0000          |
| Vendor       | 0.9436        | 2.9894        | 5.1963        | 6.4200e-003        | 14.6815        | 0.0506        | 14.7321        | 1.4962         | 0.0465        | 1.5427        | 0.0000        | 587.0695        | 587.0695        | 5.2400e-003        | 0.0000        | 587.1795        |
| Worker       | 0.1469        | 0.0438        | 0.4250        | 8.5000e-004        | 7.4921         | 5.4000e-004   | 7.4927         | 0.7591         | 4.9000e-004   | 0.7596        | 0.0000        | 66.3009         | 66.3009         | 3.5500e-003        | 0.0000        | 66.3755         |
| <b>Total</b> | <b>1.0906</b> | <b>3.0332</b> | <b>5.6213</b> | <b>7.2700e-003</b> | <b>22.1737</b> | <b>0.0512</b> | <b>22.2248</b> | <b>2.2553</b>  | <b>0.0470</b> | <b>2.3023</b> | <b>0.0000</b> | <b>653.3703</b> | <b>653.3703</b> | <b>8.7900e-003</b> | <b>0.0000</b> | <b>653.5550</b> |

### 3.2 Grading - 2015

#### Mitigated Construction On-Site

Acres of Grading: 0

|               | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O           | CO2e              |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Category      | tons/yr       |                |                |               |               |               |               |                |               |               | MT/yr         |                   |                   |               |               |                   |
| Fugitive Dust |               |                |                |               | 0.3651        | 0.0000        | 0.3651        | 0.1957         | 0.0000        | 0.1957        | 0.0000        | 0.0000            | 0.0000            | 0.0000        | 0.0000        | 0.0000            |
| Off-Road      | 1.0527        | 19.2277        | 24.0646        | 0.0373        |               | 0.8362        | 0.8362        |                | 0.9319        | 0.9319        | 0.0000        | 3,548.8068        | 3,548.8068        | 1.0595        | 0.0000        | 3,571.0556        |
| <b>Total</b>  | <b>1.0527</b> | <b>19.2277</b> | <b>24.0646</b> | <b>0.0373</b> | <b>0.3651</b> | <b>0.8362</b> | <b>1.2013</b> | <b>0.1957</b>  | <b>0.9319</b> | <b>1.1276</b> | <b>0.0000</b> | <b>3,548.8068</b> | <b>3,548.8068</b> | <b>1.0595</b> | <b>0.0000</b> | <b>3,571.0556</b> |

#### Mitigated Construction Off-Site

|              | ROG           | NOx           | CO            | SO2                | Fugitive PM10  | Exhaust PM10  | PM10 Total     | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4                | N2O           | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|----------------|---------------|----------------|----------------|---------------|---------------|---------------|-----------------|-----------------|--------------------|---------------|-----------------|
| Category     | tons/yr       |               |               |                    |                |               |                |                |               |               | MT/yr         |                 |                 |                    |               |                 |
| Hauling      | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000         | 0.0000        | 0.0000         | 0.0000         | 0.0000        | 0.0000        | 0.0000        | 0.0000          | 0.0000          | 0.0000             | 0.0000        | 0.0000          |
| Vendor       | 0.9436        | 2.9894        | 5.1963        | 6.4200e-003        | 9.0531         | 0.0506        | 9.1037         | 0.9334         | 0.0465        | 0.9798        | 0.0000        | 587.0695        | 587.0695        | 5.2400e-003        | 0.0000        | 587.1795        |
| Worker       | 0.1469        | 0.0438        | 0.4250        | 8.5000e-004        | 4.6139         | 5.4000e-004   | 4.6145         | 0.4713         | 4.9000e-004   | 0.4718        | 0.0000        | 66.3009         | 66.3009         | 3.5500e-003        | 0.0000        | 66.3755         |
| <b>Total</b> | <b>1.0906</b> | <b>3.0332</b> | <b>5.6213</b> | <b>7.2700e-003</b> | <b>13.6670</b> | <b>0.0512</b> | <b>13.7182</b> | <b>1.4046</b>  | <b>0.0470</b> | <b>1.4516</b> | <b>0.0000</b> | <b>653.3703</b> | <b>653.3703</b> | <b>8.7900e-003</b> | <b>0.0000</b> | <b>653.5550</b> |

### 4.0 Operational Detail - Mobile

#### 4.1 Mitigation Measures Mobile

|             | ROG     | NOx    | CO     | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4    | N2O    | CO2e   |
|-------------|---------|--------|--------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|--------|--------|--------|
| Category    | tons/yr |        |        |        |               |              |            |                |               |             | MT/yr    |           |           |        |        |        |
| Mitigated   | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000  | 0.0000 | 0.0000 | 0.0000 | 0.0000        | 0.0000       | 0.0000     | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

#### 4.2 Trip Summary Information

| Land Use                | Average Daily Trip Rate |          |        | Unmitigated | Mitigated  |
|-------------------------|-------------------------|----------|--------|-------------|------------|
|                         | Weekday                 | Saturday | Sunday | Annual VMT  | Annual VMT |
| User Defined Industrial | 0.00                    | 0.00     | 0.00   |             |            |
| Total                   | 0.00                    | 0.00     | 0.00   |             |            |

#### 4.3 Trip Type Information

| Land Use                | Miles      |            |             | Trip %     |            |             | Trip Purpose % |          |         |
|-------------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|
|                         | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary        | Diverted | Pass-by |
| User Defined Industrial | 14.70      | 6.60       | 6.60        | 0.00       | 0.00       | 0.00        | 0              | 0        | 0       |

#### 4.4 Fleet Mix

| LDA      | LDT1     | LDT2     | MDV      | LHD1     | LHD2     | MHD      | HHD      | OBUS     | UBUS     | MCY      | SBUS     | MH       |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 0.480297 | 0.068108 | 0.152696 | 0.151211 | 0.060189 | 0.006855 | 0.034541 | 0.032901 | 0.000938 | 0.001917 | 0.007586 | 0.000677 | 0.002085 |

#### 5.0 Energy Detail

Historical Energy Use: N

#### 5.1 Mitigation Measures Energy



**5.2 Energy by Land Use - Natural Gas**

**Mitigated**

|                         | Natural Gas Use | ROG           | NOx           | CO            | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2     | Total CO2     | CH4           | N2O           | CO2e          |
|-------------------------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Land Use                | kBTU/yr         | tons/yr       |               |               |               |               |               |               |                |               |               | MT/yr         |               |               |               |               |               |
| User Defined Industrial | 0               | 0.0000        | 0.0000        | 0.0000        | 0.0000        |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        | 0.0000        |
| <b>Total</b>            |                 | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> |               | <b>0.0000</b> | <b>0.0000</b> |                | <b>0.0000</b> |

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

|                         | Electricity Use | Total CO2     | CH4           | N2O           | CO2e          |
|-------------------------|-----------------|---------------|---------------|---------------|---------------|
| Land Use                | kWh/yr          | MT/yr         |               |               |               |
| User Defined Industrial | 0               | 0.0000        | 0.0000        | 0.0000        | 0.0000        |
| <b>Total</b>            |                 | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> |

### 5.3 Energy by Land Use - Electricity

#### Mitigated

|                         | Electricity Use | Total CO2     | CH4           | N2O           | CO2e          |
|-------------------------|-----------------|---------------|---------------|---------------|---------------|
| Land Use                | kWh/yr          | MT/yr         |               |               |               |
| User Defined Industrial | 0               | 0.0000        | 0.0000        | 0.0000        | 0.0000        |
| <b>Total</b>            |                 | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> |

### 6.0 Area Detail

#### 6.1 Mitigation Measures Area

|             | ROG         | NOx    | CO          | SO2    | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2   | Total CO2   | CH4    | N2O    | CO2e        |
|-------------|-------------|--------|-------------|--------|---------------|--------------|------------|----------------|---------------|-------------|----------|-------------|-------------|--------|--------|-------------|
| Category    | tons/yr     |        |             |        |               |              |            |                |               |             | MT/yr    |             |             |        |        |             |
| Mitigated   | 4.0000e-005 | 0.0000 | 3.8000e-004 | 0.0000 |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      | 0.0000   | 7.1000e-004 | 7.1000e-004 | 0.0000 | 0.0000 | 7.6000e-004 |
| Unmitigated | 4.0000e-005 | 0.0000 | 3.8000e-004 | 0.0000 |               | 0.0000       | 0.0000     |                | 0.0000        | 0.0000      | 0.0000   | 7.1000e-004 | 7.1000e-004 | 0.0000 | 0.0000 | 7.6000e-004 |

### 6.2 Area by SubCategory

#### Unmitigated

|                       | ROG                | NOx           | CO                 | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2          | Total CO2          | CH4           | N2O           | CO2e               |        |
|-----------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|--------|
| SubCategory           | tons/yr            |               |                    |               |               |               |               |                |               |               | MT/yr         |                    |                    |               |               |                    |        |
| Architectural Coating | 0.0000             |               |                    |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000             | 0.0000 |
| Consumer Products     | 0.0000             |               |                    |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000             | 0.0000 |
| Landscaping           | 4.0000e-005        | 0.0000        | 3.8000e-004        | 0.0000        |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 7.1000e-004        | 7.1000e-004        | 0.0000        | 0.0000        | 7.6000e-004        |        |
| <b>Total</b>          | <b>4.0000e-005</b> | <b>0.0000</b> | <b>3.8000e-004</b> | <b>0.0000</b> |               | <b>0.0000</b> | <b>0.0000</b> |                | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>7.1000e-004</b> | <b>7.1000e-004</b> | <b>0.0000</b> | <b>0.0000</b> | <b>7.6000e-004</b> |        |

#### Mitigated

|                       | ROG                | NOx           | CO                 | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2          | Total CO2          | CH4           | N2O           | CO2e               |
|-----------------------|--------------------|---------------|--------------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|
| SubCategory           | tons/yr            |               |                    |               |               |               |               |                |               |               | MT/yr         |                    |                    |               |               |                    |
| Architectural Coating | 0.0000             |               |                    |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000             |
| Consumer Products     | 0.0000             |               |                    |               |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000             |
| Landscaping           | 4.0000e-005        | 0.0000        | 3.8000e-004        | 0.0000        |               | 0.0000        | 0.0000        |                | 0.0000        | 0.0000        | 0.0000        | 7.1000e-004        | 7.1000e-004        | 0.0000        | 0.0000        | 7.6000e-004        |
| <b>Total</b>          | <b>4.0000e-005</b> | <b>0.0000</b> | <b>3.8000e-004</b> | <b>0.0000</b> |               | <b>0.0000</b> | <b>0.0000</b> |                | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>7.1000e-004</b> | <b>7.1000e-004</b> | <b>0.0000</b> | <b>0.0000</b> | <b>7.6000e-004</b> |

### 7.0 Water Detail

#### 7.1 Mitigation Measures Water

|             | Total CO2 | CH4    | N2O    | CO2e   |
|-------------|-----------|--------|--------|--------|
| Category    | MT/yr     |        |        |        |
| Mitigated   | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

## 7.2 Water by Land Use

### Unmitigated

|                         | Indoor/Outdoor Use | Total CO2     | CH4           | N2O           | CO2e          |
|-------------------------|--------------------|---------------|---------------|---------------|---------------|
| Land Use                | Mgal               | MT/yr         |               |               |               |
| User Defined Industrial | 0 / 0              | 0.0000        | 0.0000        | 0.0000        | 0.0000        |
| <b>Total</b>            |                    | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> |

## 7.2 Water by Land Use

### Mitigated

|                         | Indoor/Outdoor Use | Total CO2     | CH4           | N2O           | CO2e          |
|-------------------------|--------------------|---------------|---------------|---------------|---------------|
| Land Use                | Mgal               | MT/yr         |               |               |               |
| User Defined Industrial | 0 / 0              | 0.0000        | 0.0000        | 0.0000        | 0.0000        |
| <b>Total</b>            |                    | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> |

## 8.0 Waste Detail

---

### 8.1 Mitigation Measures Waste

#### Category/Year

|             | Total CO2 | CH4    | N2O    | CO2e   |
|-------------|-----------|--------|--------|--------|
|             | MT/yr     |        |        |        |
| Mitigated   | 0.0000    | 0.0000 | 0.0000 | 0.0000 |
| Unmitigated | 0.0000    | 0.0000 | 0.0000 | 0.0000 |

### 8.2 Waste by Land Use

#### Unmitigated

|                         | Waste Disposed | Total CO2     | CH4           | N2O           | CO2e          |
|-------------------------|----------------|---------------|---------------|---------------|---------------|
| Land Use                | tons           | MT/yr         |               |               |               |
| User Defined Industrial | 0              | 0.0000        | 0.0000        | 0.0000        | 0.0000        |
| <b>Total</b>            |                | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> |

#### Mitigated

|                         | Waste Disposed | Total CO2     | CH4           | N2O           | CO2e          |
|-------------------------|----------------|---------------|---------------|---------------|---------------|
| Land Use                | tons           | MT/yr         |               |               |               |
| User Defined Industrial | 0              | 0.0000        | 0.0000        | 0.0000        | 0.0000        |
| <b>Total</b>            |                | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> | <b>0.0000</b> |

### 9.0 Operational Offroad

---

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|
|----------------|--------|-----------|-----------|-------------|-------------|-----------|

### 10.0 Vegetation

---

### Davis Regional Water Construction Yolo County, Mitigation Report

#### Construction Mitigation Summary

| Phase             | ROG  | NOx  | CO    | SO2  | Exhaust PM10 | Exhaust PM2.5 | Bio- CO2 | NBio- CO2 | Total CO2 | CH4  | N2O  | CO2e |
|-------------------|------|------|-------|------|--------------|---------------|----------|-----------|-----------|------|------|------|
| Percent Reduction |      |      |       |      |              |               |          |           |           |      |      |      |
| Grading           | 0.54 | 0.51 | -0.03 | 0.00 | 0.56         | 0.47          | 0.00     | 0.00      | 0.00      | 0.00 | 0.00 | 0.00 |

#### OFFROAD Equipment Mitigation

| Equipment Type               | Fuel Type | Tier      | Number Mitigated | Total Number of Equipment | DPF       | Oxidation Catalyst |
|------------------------------|-----------|-----------|------------------|---------------------------|-----------|--------------------|
| Cranes                       | Diesel    | Tier 3    | 2                | 2                         | No Change | 0.00               |
| Excavators                   | Diesel    | Tier 3    | 8                | 8                         | No Change | 0.00               |
| Graders                      | Diesel    | Tier 3    | 2                | 2                         | No Change | 0.00               |
| Off-Highway Tractors         | Diesel    | Tier 3    | 4                | 4                         | No Change | 0.00               |
| Off-Highway Trucks           | Diesel    | Tier 3    | 4                | 4                         | No Change | 0.00               |
| Other Construction Equipment | Diesel    | Tier 3    | 4                | 4                         | No Change | 0.00               |
| Rubber Tired Dozers          | Diesel    | No Change | 0                | 1                         | No Change | 0.00               |
| Rubber Tired Loaders         | Diesel    | Tier 3    | 6                | 6                         | No Change | 0.00               |
| Scrapers                     | Diesel    | Tier 3    | 4                | 4                         | No Change | 0.00               |
| Tractors/Loaders/Backhoes    | Diesel    | Tier 3    | 6                | 6                         | No Change | 0.00               |

| Equipment Type               | ROG          | NOx          | CO           | SO2          | Exhaust PM10 | Exhaust PM2.5 | Bio- CO2          | NBio- CO2    | Total CO2    | CH4          | N2O          | CO2e         |
|------------------------------|--------------|--------------|--------------|--------------|--------------|---------------|-------------------|--------------|--------------|--------------|--------------|--------------|
| Unmitigated tons/yr          |              |              |              |              |              |               | Unmitigated mt/yr |              |              |              |              |              |
| Cranes                       | 1.93740E-001 | 2.29940E+000 | 8.00500E-001 | 1.47000E-003 | 1.04970E-001 | 9.65800E-002  | 0.00000E+000      | 1.40255E+002 | 1.40255E+002 | 4.18700E-002 | 0.00000E+000 | 1.41134E+002 |
| Excavators                   | 4.34890E-001 | 5.07890E+000 | 3.59051E+000 | 5.53000E-003 | 2.50690E-001 | 2.30630E-001  | 0.00000E+000      | 5.26167E+002 | 5.26167E+002 | 1.57080E-001 | 0.00000E+000 | 5.29465E+002 |
| Graders                      | 2.77140E-001 | 2.83649E+000 | 1.29995E+000 | 1.63000E-003 | 1.59490E-001 | 1.46730E-001  | 0.00000E+000      | 1.55577E+002 | 1.55577E+002 | 4.64500E-002 | 0.00000E+000 | 1.56552E+002 |
| Off-Highway Tractors         | 1.98530E-001 | 2.33445E+000 | 1.61318E+000 | 2.41000E-003 | 1.18250E-001 | 1.08790E-001  | 0.00000E+000      | 2.29820E+002 | 2.29820E+002 | 6.86100E-002 | 0.00000E+000 | 2.31261E+002 |
| Off-Highway Trucks           | 5.38030E-001 | 6.33635E+000 | 2.85014E+000 | 6.88000E-003 | 2.42030E-001 | 2.22660E-001  | 0.00000E+000      | 6.54863E+002 | 6.54863E+002 | 1.95500E-001 | 0.00000E+000 | 6.58969E+002 |
| Other Construction Equipment | 3.68370E-001 | 4.11968E+000 | 2.23610E+000 | 3.21000E-003 | 2.15830E-001 | 1.98570E-001  | 0.00000E+000      | 3.05503E+002 | 3.05503E+002 | 9.12100E-002 | 0.00000E+000 | 3.07418E+002 |
| Rubber Tired Dozers          | 1.66150E-001 | 1.87751E+000 | 1.43243E+000 | 1.16000E-003 | 8.76000E-002 | 8.05900E-002  | 0.00000E+000      | 1.10566E+002 | 1.10566E+002 | 3.30100E-002 | 0.00000E+000 | 1.11259E+002 |
| Rubber Tired Loaders         | 4.01230E-001 | 5.31199E+000 | 1.46407E+000 | 4.80000E-003 | 1.81360E-001 | 1.66850E-001  | 0.00000E+000      | 4.56752E+002 | 4.56752E+002 | 1.36360E-001 | 0.00000E+000 | 4.59616E+002 |
| Scrapers                     | 7.53320E-001 | 9.70865E+000 | 6.04300E+000 | 7.78000E-003 | 3.92110E-001 | 3.60740E-001  | 0.00000E+000      | 7.40908E+002 | 7.40908E+002 | 2.21190E-001 | 0.00000E+000 | 7.45553E+002 |
| Tractors/Loaders/Backhoes    | 2.82170E-001 | 2.68737E+000 | 1.89925E+000 | 2.44000E-003 | 2.10340E-001 | 1.93520E-001  | 0.00000E+000      | 2.32623E+002 | 2.32623E+002 | 6.94500E-002 | 0.00000E+000 | 2.34081E+002 |

| Equipment Type               | ROG          | NOx          | CO           | SO2          | Exhaust PM10 | Exhaust PM2.5 | Bio- CO2        | NBio- CO2    | Total CO2    | CH4          | N2O          | CO2e         |
|------------------------------|--------------|--------------|--------------|--------------|--------------|---------------|-----------------|--------------|--------------|--------------|--------------|--------------|
| Mitigated tons/yr            |              |              |              |              |              |               | Mitigated mt/yr |              |              |              |              |              |
| Cranes                       | 3.61600E-002 | 6.99100E-001 | 7.83480E-001 | 1.47000E-003 | 2.65200E-002 | 3.37500E-002  | 0.00000E+000    | 1.40088E+002 | 1.40088E+002 | 4.18200E-002 | 0.00000E+000 | 1.40966E+002 |
| Excavators                   | 1.35860E-001 | 2.62660E+000 | 4.18898E+000 | 5.52000E-003 | 1.26800E-001 | 1.26800E-001  | 0.00000E+000    | 5.25541E+002 | 5.25541E+002 | 1.56900E-001 | 0.00000E+000 | 5.28836E+002 |
| Graders                      | 3.93600E-002 | 7.60970E-001 | 1.21362E+000 | 1.63000E-003 | 3.67400E-002 | 3.67400E-002  | 0.00000E+000    | 1.55392E+002 | 1.55392E+002 | 4.63900E-002 | 0.00000E+000 | 1.56366E+002 |
| Off-Highway Tractors         | 5.92300E-002 | 1.14519E+000 | 1.82638E+000 | 2.41000E-003 | 5.52900E-002 | 5.52900E-002  | 0.00000E+000    | 2.29547E+002 | 2.29547E+002 | 6.85300E-002 | 0.00000E+000 | 2.30986E+002 |
| Off-Highway Trucks           | 1.67730E-001 | 3.24272E+000 | 3.63408E+000 | 6.87000E-003 | 1.23000E-001 | 1.56550E-001  | 0.00000E+000    | 6.54084E+002 | 6.54084E+002 | 1.95270E-001 | 0.00000E+000 | 6.58185E+002 |
| Other Construction Equipment | 7.92500E-002 | 1.53218E+000 | 2.44357E+000 | 3.20000E-003 | 7.39700E-002 | 7.39700E-002  | 0.00000E+000    | 3.05140E+002 | 3.05140E+002 | 9.11000E-002 | 0.00000E+000 | 3.07053E+002 |
| Rubber Tired Dozers          | 1.65950E-001 | 1.87527E+000 | 1.43072E+000 | 1.16000E-003 | 8.74900E-002 | 8.04900E-002  | 0.00000E+000    | 1.10434E+002 | 1.10434E+002 | 3.29700E-002 | 0.00000E+000 | 1.11127E+002 |
| Rubber Tired Loaders         | 1.18580E-001 | 2.29252E+000 | 2.56920E+000 | 4.79000E-003 | 8.69600E-002 | 1.10670E-001  | 0.00000E+000    | 4.56209E+002 | 4.56209E+002 | 1.36200E-001 | 0.00000E+000 | 4.59069E+002 |
| Scrapers                     | 1.91210E-001 | 3.69670E+000 | 4.14285E+000 | 7.77000E-003 | 1.40220E-001 | 1.78460E-001  | 0.00000E+000    | 7.40026E+002 | 7.40026E+002 | 2.20930E-001 | 0.00000E+000 | 7.44666E+002 |
| Tractors/Loaders/Balckhoes   | 5.94100E-002 | 1.35642E+000 | 1.83166E+000 | 2.44000E-003 | 7.92100E-002 | 7.92100E-002  | 0.00000E+000    | 2.32346E+002 | 2.32346E+002 | 6.93700E-002 | 0.00000E+000 | 2.33803E+002 |

| Equipment Type               | ROG          | NOx          | CO            | SO2          | Exhaust PM10 | Exhaust PM2.5 | Bio- CO2     | NBio- CO2    | Total CO2    | CH4          | N2O          | CO2e         |
|------------------------------|--------------|--------------|---------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Percent Reduction            |              |              |               |              |              |               |              |              |              |              |              |              |
| Cranes                       | 8.13358E-001 | 6.95964E-001 | 2.12617E-002  | 0.00000E+000 | 7.47356E-001 | 6.50549E-001  | 0.00000E+000 | 1.18962E-003 | 1.18962E-003 | 1.19417E-003 | 0.00000E+000 | 1.18965E-003 |
| Excavators                   | 6.87599E-001 | 4.82841E-001 | -1.66681E-001 | 1.80832E-003 | 4.94196E-001 | 4.50202E-001  | 0.00000E+000 | 1.18960E-003 | 1.18960E-003 | 1.14591E-003 | 0.00000E+000 | 1.18961E-003 |
| Graders                      | 8.57978E-001 | 7.31721E-001 | 6.64102E-002  | 0.00000E+000 | 7.69641E-001 | 7.49608E-001  | 0.00000E+000 | 1.18964E-003 | 1.18964E-003 | 1.29171E-003 | 0.00000E+000 | 1.18963E-003 |
| Off-Highway Tractors         | 7.01657E-001 | 5.09439E-001 | -1.32161E-001 | 0.00000E+000 | 5.32431E-001 | 4.91773E-001  | 0.00000E+000 | 1.18958E-003 | 1.18958E-003 | 1.16601E-003 | 0.00000E+000 | 1.18961E-003 |
| Off-Highway Trucks           | 6.88252E-001 | 4.88235E-001 | -2.75053E-001 | 1.45349E-003 | 4.91799E-001 | 2.96910E-001  | 0.00000E+000 | 1.18959E-003 | 1.18959E-003 | 1.17647E-003 | 0.00000E+000 | 1.18960E-003 |
| Other Construction Equipment | 7.84863E-001 | 6.28083E-001 | -9.27821E-002 | 3.11526E-003 | 6.57277E-001 | 6.27487E-001  | 0.00000E+000 | 1.18958E-003 | 1.18958E-003 | 1.20601E-003 | 0.00000E+000 | 1.18962E-003 |
| Rubber Tired Dozers          | 1.20373E-003 | 1.19307E-003 | 1.19378E-003  | 0.00000E+000 | 1.25571E-003 | 1.24085E-003  | 0.00000E+000 | 1.18961E-003 | 1.18961E-003 | 1.21175E-003 | 0.00000E+000 | 1.18966E-003 |
| Rubber Tired Loaders         | 7.04459E-001 | 5.68425E-001 | -7.54834E-001 | 2.08333E-003 | 5.20512E-001 | 3.36710E-001  | 0.00000E+000 | 1.18959E-003 | 1.18959E-003 | 1.17336E-003 | 0.00000E+000 | 1.18960E-003 |
| Scrapers                     | 7.46177E-001 | 6.19236E-001 | 3.14438E-001  | 1.28535E-003 | 6.42396E-001 | 5.05295E-001  | 0.00000E+000 | 1.18960E-003 | 1.18960E-003 | 1.17546E-003 | 0.00000E+000 | 1.18960E-003 |
| Tractors/Loaders/Balckhoes   | 7.89453E-001 | 4.95261E-001 | 3.55877E-002  | 0.00000E+000 | 6.23419E-001 | 5.90688E-001  | 0.00000E+000 | 1.18961E-003 | 1.18961E-003 | 1.15191E-003 | 0.00000E+000 | 1.18963E-003 |

**Fugitive Dust Mitigation**

| Yes/No | Mitigation Measure                     | Mitigation Input    | Mitigation Input | Mitigation Input                                  |
|--------|--|---------------------|------------------|---|
| No     | Soil Stabilizer for unpaved Roads      | PM10 Reduction      | 0.00             | PM2.5 Reduction: 0.00                             |
| No     | Replace Ground Cover of Area Disturbed | PM10 Reduction      | 0.00             | PM2.5 Reduction: 0.00                             |
| Yes    | Water Exposed Area                     | PM10 Reduction      | 55.00            | PM2.5 Reduction: 55.00; Frequency (per day): 2.00 |
| No     | Unpaved Road Mitigation                | Moisture Content: % | 0.00             | Vehicle Speed (mph): 15.00                        |
| Yes    | Clean Paved Road                       | % PM Reduction      | 0.00             |   |

| Phase   | Source        | Unmitigated |       | Mitigated |       | Percent Reduction |       |
|---------|---------------|-------------|-------|-----------|-------|-------------------|-------|
|         |               | PM10        | PM2.5 | PM10      | PM2.5 | PM10              | PM2.5 |
| Grading | Fugitive Dust | 0.81        | 0.43  | 0.37      | 0.20  | 0.55              | 0.55  |
| Grading | Roads         | 22.17       | 2.26  | 13.67     | 1.40  | 0.38              | 0.38  |

**Operational Percent Reduction Summary**

| Category              | ROG  | NOx  | CO   | SO2  | Exhaust PM10 | Exhaust PM2.5 | Bio- CO2 | NBio- CO2 | Total CO2 | CH4  | N2O  | CO2e |
|-----------------------|------|------|------|------|--------------|---------------|----------|-----------|-----------|------|------|------|
| Percent Reduction     |      |      |      |      |              |               |          |           |           |      |      |      |
| Architectural Coating | 0.00 | 0.00 | 0.00 | 0.00 | 0.00         | 0.00          | 0.00     | 0.00      | 0.00      | 0.00 | 0.00 | 0.00 |
| Consumer Products     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00         | 0.00          | 0.00     | 0.00      | 0.00      | 0.00 | 0.00 | 0.00 |
| Electricity           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00         | 0.00          | 0.00     | 0.00      | 0.00      | 0.00 | 0.00 | 0.00 |
| Hearth                | 0.00 | 0.00 | 0.00 | 0.00 | 0.00         | 0.00          | 0.00     | 0.00      | 0.00      | 0.00 | 0.00 | 0.00 |
| Landscaping           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00         | 0.00          | 0.00     | 0.00      | 0.00      | 0.00 | 0.00 | 0.00 |
| Mobile                | 0.00 | 0.00 | 0.00 | 0.00 | 0.00         | 0.00          | 0.00     | 0.00      | 0.00      | 0.00 | 0.00 | 0.00 |
| Natural Gas           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00         | 0.00          | 0.00     | 0.00      | 0.00      | 0.00 | 0.00 | 0.00 |
| Water Indoor          | 0.00 | 0.00 | 0.00 | 0.00 | 0.00         | 0.00          | 0.00     | 0.00      | 0.00      | 0.00 | 0.00 | 0.00 |
| Water Outdoor         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00         | 0.00          | 0.00     | 0.00      | 0.00      | 0.00 | 0.00 | 0.00 |

**Operational Mobile Mitigation**

Project Setting:

| Mitigation | Category | Measure            | % Reduction | Input Value 1 | Input Value 2 | Input Value |
|------------|----------|--------------------|-------------|---------------|---------------|-------------|
| No         | Land Use | Increase Density   | 0.00        |               |               |             |
| No         | Land Use | Increase Diversity | 0.00        | 0.15          |               |             |

|    |                           |  |      |  |  |
|----|---------------------------|--|------|--|--|
| No | Land Use                  | Improve Walkability Design             | 0.00 |  |  |
| No | Land Use                  | Improve Destination Accessibility      | 0.00 |  |  |
| No | Land Use                  | Increase Transit Accessibility         | 0.25 |  |  |
| No | Land Use                  | Integrate Below Market Rate Housing    | 0.00 |  |  |
|    | Land Use                  | Land Use SubTotal                      | 0.00 |  |  |
| No | Neighborhood Enhancements | Improve Pedestrian Network             |      |  |  |
| No | Neighborhood Enhancements | Provide Traffic Calming Measures       |      |  |  |
| No | Neighborhood Enhancements | Implement NEV Network                  | 0.00 |  |  |
|    | Neighborhood Enhancements | Neighborhood Enhancements Subtotal     | 0.00 |  |  |
| No | Parking Policy Pricing    | Limit Parking Supply                   | 0.00 |  |  |
| No | Parking Policy Pricing    | Unbundle Parking Costs                 | 0.00 |  |  |
| No | Parking Policy Pricing    | On-street Market Pricing               | 0.00 |  |  |
|    | Parking Policy Pricing    | Parking Policy Pricing Subtotal        | 0.00 |  |  |
| No | Transit Improvements      | Provide BRT System                     | 0.00 |  |  |
| No | Transit Improvements      | Expand Transit Network                 | 0.00 |  |  |
| No | Transit Improvements      | Increase Transit Frequency             | 0.00 |  |  |
|    | Transit Improvements      | Transit Improvements Subtotal          | 0.00 |  |  |
|    |                           | Land Use and Site Enhancement Subtotal | 0.00 |  |  |
| No | Commute                   | Implement Trip Reduction Program       |      |  |  |
| No | Commute                   | Transit Subsidy                        |      |  |  |
| No | Commute                   | Implement Employee Parking "Cash Out"  |      |  |  |
| No | Commute                   | Workplace Parking Charge               |      |  |  |

|    |             |  |      |  |      |
|----|-------------|--|------|--|------|
| No | Commute     | Encourage Telecommuting and Alternative Work Schedules | 0.00 |  |      |
| No | Commute     | Market Commute Trip Reduction Option                   | 0.00 |  |      |
| No | Commute     | Employee Vanpool/Shuttle                               | 0.00 |  | 2.00 |
| No | Commute     | Provide Ride Sharing Program                           |      |  |      |
|    | Commute     | Commute Subtotal                                       | 0.00 |  |      |
| No | School Trip | Implement School Bus Program                           | 0.00 |  |      |
|    |             | Total VMT Reduction                                    | 0.00 |  |      |

**Area Mitigation**

| Measure Implemented | Mitigation Measure                           | Input Value |
|---------------------|--|-------------|
| No                  | Only Natural Gas Hearth                      |             |
| No                  | No Hearth                                    |             |
| No                  | Use Low VOC Cleaning Supplies                |             |
| No                  | Use Low VOC Paint (Residential Interior)     | 100.00      |
| No                  | Use Low VOC Paint (Residential Exterior)     | 100.00      |
| No                  | Use Low VOC Paint (Non-residential Interior) | 150.00      |
| No                  | Use Low VOC Paint (Non-residential Exterior) | 150.00      |
| No                  | % Electric Lawnmower                         |             |
| No                  | % Electric Leafblower                        |             |
| No                  | % Electric Chainsaw                          |             |

**Energy Mitigation Measures**

| Measure Implemented | Mitigation Measure | Input Value 1 | Input Value 2 |
|---------------------|--------------------|---------------|---------------|
|---------------------|--------------------|---------------|---------------|

|    |                                  |  |  |
|----|----------------------------------|--|--|
| No | Exceed Title 24                  |  |  |
| No | Install High Efficiency Lighting |  |  |
| No | On-site Renewable                |  |  |

| Appliance Type | Land Use Subtype | % Improvement |
|----------------|------------------|---------------|
| ClothWasher    |                  | 30.00         |
| DishWasher     |                  | 15.00         |
| Fan            |                  | 50.00         |
| Refrigerator   |                  | 15.00         |

**Water Mitigation Measures**

| Measure Implemented | Mitigation Measure                     | Input Value 1 | Input Value 2 |
|---------------------|--|---------------|---------------|
| No                  | Apply Water Conservation on Strategy   |               |               |
| No                  | Use Reclaimed Water                    |               |               |
| No                  | Use Grey Water                         |               |               |
| No                  | Install low-flow bathroom faucet       | 32.00         |               |
| No                  | Install low-flow Kitchen faucet        | 18.00         |               |
| No                  | Install low-flow Toilet                | 20.00         |               |
| No                  | Install low-flow Shower                | 20.00         |               |
| No                  | Turf Reduction                         |               |               |
| No                  | Use Water Efficient Irrigation Systems | 6.10          |               |
| No                  | Water Efficient Landscape              |               |               |

**Solid Waste Mitigation**

| Mitigation Measures  | Input Value |
|--|-------------|
| Institute Recycling and Composting Services<br>Percent Reduction in Waste Disposed |             |

## Davis Regional Water Construction Yolo County, Annual

### 1.0 Project Characteristics

---

#### 1.1 Land Usage

| Land Uses               | Size | Metric            |
|-------------------------|------|-------------------|
| User Defined Industrial | 40   | User Defined Unit |

#### 1.2 Other Project Characteristics

|                     |       |                                  |     |                        |                                |
|---------------------|-------|----------------------------------|-----|------------------------|--------------------------------|
| <b>Urbanization</b> | Rural | <b>Wind Speed (m/s)</b>          | 2.2 | <b>Utility Company</b> | Pacific Gas & Electric Company |
| <b>Climate Zone</b> | 2     | <b>Precipitation Freq (Days)</b> | 54  |                        |                                |

#### 1.3 User Entered Comments

Project Characteristics - Worse-case annual construction model results

Land Use - Assumed 40 acres disturbed

Construction Phase - Assumes 2015 worse-case construction year. Used Grading phase to include disturbed area/fugitive dust.

Off-road Equipment - Equip type/# from EIR. Updated Load Factor to ARBs latest

Grading - Assumed 40 acres disturbed annually

Trips and VMT - Matched EIR trip assumptions: 45 workers and 224 haul trucks (vendor and soil) daily

Construction Off-road Equipment Mitigation - Mitigation: Tier 3 engine minimum and basic fugitive dust controls

## 2.0 Emissions Summary

---

### 2.1 Overall Construction

#### Unmitigated Construction

|              | ROG         | NOx          | CO           | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2    | NBio-CO2        | Total CO2       | CH4         | N2O         | CO2e            |
|--------------|-------------|--------------|--------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|-----------------|-----------------|-------------|-------------|-----------------|
| Year         | tons/yr     |              |              |             |               |              |             |                |               |             | MT/yr       |                 |                 |             |             |                 |
| 2015         | 4.12        | 32.34        | 19.43        | 0.05        | 5.81          | 1.49         | 7.31        | 0.03           | 1.49          | 1.52        | 0.00        | 4,566.77        | 4,566.77        | 0.32        | 0.00        | 4,573.51        |
| <b>Total</b> | <b>4.12</b> | <b>32.34</b> | <b>19.43</b> | <b>0.05</b> | <b>5.81</b>   | <b>1.49</b>  | <b>7.31</b> | <b>0.03</b>    | <b>1.49</b>   | <b>1.52</b> | <b>0.00</b> | <b>4,566.77</b> | <b>4,566.77</b> | <b>0.32</b> | <b>0.00</b> | <b>4,573.51</b> |

#### Mitigated Construction

|              | ROG         | NOx          | CO           | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2    | NBio-CO2        | Total CO2       | CH4         | N2O         | CO2e            |
|--------------|-------------|--------------|--------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|-----------------|-----------------|-------------|-------------|-----------------|
| Year         | tons/yr     |              |              |             |               |              |             |                |               |             | MT/yr       |                 |                 |             |             |                 |
| 2015         | 3.40        | 23.41        | 24.97        | 0.05        | 5.80          | 1.49         | 7.29        | 0.03           | 1.49          | 1.51        | 0.00        | 4,566.77        | 4,566.77        | 0.32        | 0.00        | 4,573.51        |
| <b>Total</b> | <b>3.40</b> | <b>23.41</b> | <b>24.97</b> | <b>0.05</b> | <b>5.80</b>   | <b>1.49</b>  | <b>7.29</b> | <b>0.03</b>    | <b>1.49</b>   | <b>1.51</b> | <b>0.00</b> | <b>4,566.77</b> | <b>4,566.77</b> | <b>0.32</b> | <b>0.00</b> | <b>4,573.51</b> |

## 2.2 Overall Operational

### Unmitigated Operational

|              | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2    | NBio-CO2    | Total CO2   | CH4         | N2O         | CO2e        |
|--------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Category     | tons/yr     |             |             |             |               |              |             |                |               |             | MT/yr       |             |             |             |             |             |
| Area         | 0.00        | 0.00        | 0.00        | 0.00        |               | 0.00         | 0.00        |                | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| Energy       | 0.00        | 0.00        | 0.00        | 0.00        |               | 0.00         | 0.00        |                | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| Mobile       | 0.00        | 0.00        | 0.00        | 0.00        | 0.00          | 0.00         | 0.00        | 0.00           | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| Waste        |             |             |             |             |               | 0.00         | 0.00        |                | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| Water        |             |             |             |             |               | 0.00         | 0.00        |                | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>Total</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b>   | <b>0.00</b>  | <b>0.00</b> | <b>0.00</b>    | <b>0.00</b>   | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |

## 2.2 Overall Operational

### Mitigated Operational

|              | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2    | NBio-CO2    | Total CO2   | CH4         | N2O         | CO2e        |
|--------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Category     | tons/yr     |             |             |             |               |              |             |                |               |             | MT/yr       |             |             |             |             |             |
| Area         | 0.00        | 0.00        | 0.00        | 0.00        |               | 0.00         | 0.00        |                | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| Energy       | 0.00        | 0.00        | 0.00        | 0.00        |               | 0.00         | 0.00        |                | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| Mobile       | 0.00        | 0.00        | 0.00        | 0.00        | 0.00          | 0.00         | 0.00        | 0.00           | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| Waste        |             |             |             |             |               | 0.00         | 0.00        |                | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| Water        |             |             |             |             |               | 0.00         | 0.00        |                | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>Total</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b>   | <b>0.00</b>  | <b>0.00</b> | <b>0.00</b>    | <b>0.00</b>   | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |

## 3.0 Construction Detail

---

### 3.1 Mitigation Measures Construction

- Use Cleaner Engines for Construction Equipment
- Use DPF for Construction Equipment
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

### 3.2 Grading - 2015

#### Unmitigated Construction On-Site

|               | ROG         | NOx          | CO           | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2    | NBio- CO2       | Total CO2       | CH4         | N2O         | CO2e            |
|---------------|-------------|--------------|--------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|-----------------|-----------------|-------------|-------------|-----------------|
| Category      | tons/yr     |              |              |             |               |              |             |                |               |             | MT/yr       |                 |                 |             |             |                 |
| Fugitive Dust |             |              |              |             | 0.02          | 0.00         | 0.02        | 0.00           | 0.00          | 0.00        | 0.00        | 0.00            | 0.00            | 0.00        | 0.00        | 0.00            |
| Off-Road      | 3.72        | 28.26        | 16.61        | 0.04        |               | 1.37         | 1.37        |                | 1.37          | 1.37        | 0.00        | 3,766.12        | 3,766.12        | 0.30        | 0.00        | 3,772.45        |
| <b>Total</b>  | <b>3.72</b> | <b>28.26</b> | <b>16.61</b> | <b>0.04</b> | <b>0.02</b>   | <b>1.37</b>  | <b>1.39</b> | <b>0.00</b>    | <b>1.37</b>   | <b>1.37</b> | <b>0.00</b> | <b>3,766.12</b> | <b>3,766.12</b> | <b>0.30</b> | <b>0.00</b> | <b>3,772.45</b> |

#### Unmitigated Construction Off-Site

|              | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2    | NBio- CO2     | Total CO2     | CH4         | N2O         | CO2e          |
|--------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|---------------|---------------|-------------|-------------|---------------|
| Category     | tons/yr     |             |             |             |               |              |             |                |               |             | MT/yr       |               |               |             |             |               |
| Hauling      | 0.04        | 0.48        | 0.24        | 0.00        | 5.50          | 0.02         | 5.51        | 0.00           | 0.02          | 0.02        | 0.00        | 83.37         | 83.37         | 0.00        | 0.00        | 83.41         |
| Vendor       | 0.31        | 3.56        | 2.15        | 0.01        | 0.20          | 0.11         | 0.30        | 0.02           | 0.11          | 0.12        | 0.00        | 643.59        | 643.59        | 0.01        | 0.00        | 643.88        |
| Worker       | 0.04        | 0.05        | 0.44        | 0.00        | 0.10          | 0.00         | 0.10        | 0.00           | 0.00          | 0.01        | 0.00        | 73.69         | 73.69         | 0.00        | 0.00        | 73.77         |
| <b>Total</b> | <b>0.39</b> | <b>4.09</b> | <b>2.83</b> | <b>0.01</b> | <b>5.80</b>   | <b>0.13</b>  | <b>5.91</b> | <b>0.02</b>    | <b>0.13</b>   | <b>0.15</b> | <b>0.00</b> | <b>800.65</b> | <b>800.65</b> | <b>0.01</b> | <b>0.00</b> | <b>801.06</b> |

### 3.2 Grading - 2015

#### Mitigated Construction On-Site

|               | ROG         | NOx          | CO           | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2    | NBio- CO2       | Total CO2       | CH4         | N2O         | CO2e            |
|---------------|-------------|--------------|--------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|-----------------|-----------------|-------------|-------------|-----------------|
| Category      | tons/yr     |              |              |             |               |              |             |                |               |             | MT/yr       |                 |                 |             |             |                 |
| Fugitive Dust |             |              |              |             | 0.01          | 0.00         | 0.01        | 0.00           | 0.00          | 0.00        | 0.00        | 0.00            | 0.00            | 0.00        | 0.00        | 0.00            |
| Off-Road      | 3.00        | 19.32        | 22.14        | 0.04        |               | 1.36         | 1.36        |                | 1.36          | 1.36        | 0.00        | 3,766.12        | 3,766.12        | 0.30        | 0.00        | 3,772.45        |
| <b>Total</b>  | <b>3.00</b> | <b>19.32</b> | <b>22.14</b> | <b>0.04</b> | <b>0.01</b>   | <b>1.36</b>  | <b>1.37</b> | <b>0.00</b>    | <b>1.36</b>   | <b>1.36</b> | <b>0.00</b> | <b>3,766.12</b> | <b>3,766.12</b> | <b>0.30</b> | <b>0.00</b> | <b>3,772.45</b> |

#### Mitigated Construction Off-Site

|              | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2    | NBio- CO2     | Total CO2     | CH4         | N2O         | CO2e          |
|--------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|---------------|---------------|-------------|-------------|---------------|
| Category     | tons/yr     |             |             |             |               |              |             |                |               |             | MT/yr       |               |               |             |             |               |
| Hauling      | 0.04        | 0.48        | 0.24        | 0.00        | 5.50          | 0.02         | 5.51        | 0.00           | 0.02          | 0.02        | 0.00        | 83.37         | 83.37         | 0.00        | 0.00        | 83.41         |
| Vendor       | 0.31        | 3.56        | 2.15        | 0.01        | 0.20          | 0.11         | 0.30        | 0.02           | 0.11          | 0.12        | 0.00        | 643.59        | 643.59        | 0.01        | 0.00        | 643.88        |
| Worker       | 0.04        | 0.05        | 0.44        | 0.00        | 0.10          | 0.00         | 0.10        | 0.00           | 0.00          | 0.01        | 0.00        | 73.69         | 73.69         | 0.00        | 0.00        | 73.77         |
| <b>Total</b> | <b>0.39</b> | <b>4.09</b> | <b>2.83</b> | <b>0.01</b> | <b>5.80</b>   | <b>0.13</b>  | <b>5.91</b> | <b>0.02</b>    | <b>0.13</b>   | <b>0.15</b> | <b>0.00</b> | <b>800.65</b> | <b>800.65</b> | <b>0.01</b> | <b>0.00</b> | <b>801.06</b> |

### 4.0 Mobile Detail

#### 4.1 Mitigation Measures Mobile

|              | ROG       | NOx       | CO        | SO2       | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2  | NBio- CO2 | Total CO2 | CH4       | N2O       | CO2e      |
|--------------|-----------|-----------|-----------|-----------|---------------|--------------|------------|----------------|---------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Category     | tons/yr   |           |           |           |               |              |            |                |               |             | MT/yr     |           |           |           |           |           |
| Mitigated    | 0.00      | 0.00      | 0.00      | 0.00      | 0.00          | 0.00         | 0.00       | 0.00           | 0.00          | 0.00        | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| Unmitigated  | 0.00      | 0.00      | 0.00      | 0.00      | 0.00          | 0.00         | 0.00       | 0.00           | 0.00          | 0.00        | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>Total</b> | <b>NA</b> | <b>NA</b> | <b>NA</b> | <b>NA</b> | <b>NA</b>     | <b>NA</b>    | <b>NA</b>  | <b>NA</b>      | <b>NA</b>     | <b>NA</b>   | <b>NA</b> | <b>NA</b> | <b>NA</b> | <b>NA</b> | <b>NA</b> | <b>NA</b> |

#### 4.2 Trip Summary Information

| Land Use                | Average Daily Trip Rate |             |             | Unmitigated | Mitigated  |
|-------------------------|-------------------------|-------------|-------------|-------------|------------|
|                         | Weekday                 | Saturday    | Sunday      | Annual VMT  | Annual VMT |
| User Defined Industrial | 0.00                    | 0.00        | 0.00        |             |            |
| <b>Total</b>            | <b>0.00</b>             | <b>0.00</b> | <b>0.00</b> |             |            |

#### 4.3 Trip Type Information

| Land Use                | Miles      |            |             | Trip %     |            |             |
|-------------------------|------------|------------|-------------|------------|------------|-------------|
|                         | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW |
| User Defined Industrial | 14.70      | 6.60       | 6.60        | 0.00       | 0.00       | 0.00        |

### 5.0 Energy Detail

---

### 5.1 Mitigation Measures Energy

|                         | ROG       | NOx       | CO        | SO2       | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2  | NBio- CO2 | Total CO2 | CH4       | N2O       | CO2e      |
|-------------------------|-----------|-----------|-----------|-----------|---------------|--------------|------------|----------------|---------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Category                | tons/yr   |           |           |           |               |              |            |                |               |             | MT/yr     |           |           |           |           |           |
| Electricity Mitigated   |           |           |           |           |               | 0.00         | 0.00       |                | 0.00          | 0.00        | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| Electricity Unmitigated |           |           |           |           |               | 0.00         | 0.00       |                | 0.00          | 0.00        | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| NaturalGas Mitigated    | 0.00      | 0.00      | 0.00      | 0.00      |               | 0.00         | 0.00       |                | 0.00          | 0.00        | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| NaturalGas Unmitigated  | 0.00      | 0.00      | 0.00      | 0.00      |               | 0.00         | 0.00       |                | 0.00          | 0.00        | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>Total</b>            | <b>NA</b> | <b>NA</b> | <b>NA</b> | <b>NA</b> | <b>NA</b>     | <b>NA</b>    | <b>NA</b>  | <b>NA</b>      | <b>NA</b>     | <b>NA</b>   | <b>NA</b> | <b>NA</b> | <b>NA</b> | <b>NA</b> | <b>NA</b> | <b>NA</b> |

### 5.2 Energy by Land Use - NaturalGas

#### Unmitigated

|                         | NaturalGas Use | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2    | NBio- CO2   | Total CO2   | CH4         | N2O         | CO2e        |
|-------------------------|----------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Land Use                | kBTU           | tons/yr     |             |             |             |               |              |             |                |               |             | MT/yr       |             |             |             |             |             |
| User Defined Industrial | 0              | 0.00        | 0.00        | 0.00        | 0.00        |               | 0.00         | 0.00        |                | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>Total</b>            |                | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |               | <b>0.00</b>  | <b>0.00</b> |                | <b>0.00</b>   | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |

## 5.2 Energy by Land Use - NaturalGas

### Mitigated

|                         | NaturalGas Use | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2    | NBio- CO2   | Total CO2   | CH4         | N2O         | CO2e        |
|-------------------------|----------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Land Use                | kBTU           | tons/yr     |             |             |             |               |              |             |                |               |             | MT/yr       |             |             |             |             |             |
| User Defined Industrial | 0              | 0.00        | 0.00        | 0.00        | 0.00        |               | 0.00         | 0.00        |                | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>Total</b>            |                | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |               | <b>0.00</b>  | <b>0.00</b> |                | <b>0.00</b>   | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |

## 5.3 Energy by Land Use - Electricity

### Unmitigated

|                         | Electricity Use | ROG     | NOx | CO | SO2 | Total CO2   | CH4         | N2O         | CO2e        |
|-------------------------|-----------------|---------|-----|----|-----|-------------|-------------|-------------|-------------|
| Land Use                | kWh             | tons/yr |     |    |     | MT/yr       |             |             |             |
| User Defined Industrial | 0               |         |     |    |     | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>Total</b>            |                 |         |     |    |     | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |

### 5.3 Energy by Land Use - Electricity

#### Mitigated

|                         | Electricity Use | ROG     | NOx | CO | SO2 | Total CO2   | CH4         | N2O         | CO2e        |
|-------------------------|-----------------|---------|-----|----|-----|-------------|-------------|-------------|-------------|
| Land Use                | kWh             | tons/yr |     |    |     | MT/yr       |             |             |             |
| User Defined Industrial | 0               |         |     |    |     | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>Total</b>            |                 |         |     |    |     | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |

### 6.0 Area Detail

---

#### 6.1 Mitigation Measures Area

|              | ROG       | NOx       | CO        | SO2       | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2  | NBio- CO2 | Total CO2 | CH4       | N2O       | CO2e      |
|--------------|-----------|-----------|-----------|-----------|---------------|--------------|------------|----------------|---------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Category     | tons/yr   |           |           |           |               |              |            |                |               |             | MT/yr     |           |           |           |           |           |
| Mitigated    | 0.00      | 0.00      | 0.00      | 0.00      |               | 0.00         | 0.00       |                | 0.00          | 0.00        | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| Unmitigated  | 0.00      | 0.00      | 0.00      | 0.00      |               | 0.00         | 0.00       |                | 0.00          | 0.00        | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>Total</b> | <b>NA</b> | <b>NA</b> | <b>NA</b> | <b>NA</b> | <b>NA</b>     | <b>NA</b>    | <b>NA</b>  | <b>NA</b>      | <b>NA</b>     | <b>NA</b>   | <b>NA</b> | <b>NA</b> | <b>NA</b> | <b>NA</b> | <b>NA</b> | <b>NA</b> |

## 6.2 Area by SubCategory

### Unmitigated

|                       | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2    | NBio- CO2   | Total CO2   | CH4         | N2O         | CO2e        |             |
|-----------------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| SubCategory           | tons/yr     |             |             |             |               |              |             |                |               |             | MT/yr       |             |             |             |             |             |             |
| Architectural Coating | 0.00        |             |             |             |               | 0.00         | 0.00        |                | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| Consumer Products     | 0.00        |             |             |             |               | 0.00         | 0.00        |                | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| Landscaping           | 0.00        | 0.00        | 0.00        | 0.00        |               | 0.00         | 0.00        |                | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>Total</b>          | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |               | <b>0.00</b>  | <b>0.00</b> |                | <b>0.00</b>   | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |

### Mitigated

|                       | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2    | NBio- CO2   | Total CO2   | CH4         | N2O         | CO2e        |             |
|-----------------------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| SubCategory           | tons/yr     |             |             |             |               |              |             |                |               |             | MT/yr       |             |             |             |             |             |             |
| Architectural Coating | 0.00        |             |             |             |               | 0.00         | 0.00        |                | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| Consumer Products     | 0.00        |             |             |             |               | 0.00         | 0.00        |                | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| Landscaping           | 0.00        | 0.00        | 0.00        | 0.00        |               | 0.00         | 0.00        |                | 0.00          | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>Total</b>          | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |               | <b>0.00</b>  | <b>0.00</b> |                | <b>0.00</b>   | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

|              | ROG       | NOx       | CO        | SO2       | Total CO2 | CH4       | N2O       | CO2e      |
|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Category     | tons/yr   |           |           |           | MT/yr     |           |           |           |
| Mitigated    |           |           |           |           | 0.00      | 0.00      | 0.00      | 0.00      |
| Unmitigated  |           |           |           |           | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>Total</b> | <b>NA</b> |

## 7.2 Water by Land Use

### Unmitigated

|                         | Indoor/Outdoor Use | ROG     | NOx | CO | SO2 | Total CO2   | CH4         | N2O         | CO2e        |
|-------------------------|--------------------|---------|-----|----|-----|-------------|-------------|-------------|-------------|
| Land Use                | Mgal               | tons/yr |     |    |     | MT/yr       |             |             |             |
| User Defined Industrial | 0 / 0              |         |     |    |     | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>Total</b>            |                    |         |     |    |     | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |

## 7.2 Water by Land Use

### Mitigated

|                         | Indoor/Outdoor Use | ROG     | NOx | CO | SO2 | Total CO2   | CH4         | N2O         | CO2e        |
|-------------------------|--------------------|---------|-----|----|-----|-------------|-------------|-------------|-------------|
| Land Use                | Mgal               | tons/yr |     |    |     | MT/yr       |             |             |             |
| User Defined Industrial | 0 / 0              |         |     |    |     | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>Total</b>            |                    |         |     |    |     | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |

## 8.0 Waste Detail

---

### 8.1 Mitigation Measures Waste

#### Category/Year

|              | ROG       | NOx       | CO        | SO2       | Total CO2 | CH4       | N2O       | CO2e      |
|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|              | tons/yr   |           |           |           | MT/yr     |           |           |           |
| Mitigated    |           |           |           |           | 0.00      | 0.00      | 0.00      | 0.00      |
| Unmitigated  |           |           |           |           | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>Total</b> | <b>NA</b> |

## 8.2 Waste by Land Use

### Unmitigated

|                         | Waste Disposed | ROG     | NOx | CO | SO2 | Total CO2   | CH4         | N2O         | CO2e        |
|-------------------------|----------------|---------|-----|----|-----|-------------|-------------|-------------|-------------|
| Land Use                | tons           | tons/yr |     |    |     | MT/yr       |             |             |             |
| User Defined Industrial | 0              |         |     |    |     | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>Total</b>            |                |         |     |    |     | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |

### Mitigated

|                         | Waste Disposed | ROG     | NOx | CO | SO2 | Total CO2   | CH4         | N2O         | CO2e        |
|-------------------------|----------------|---------|-----|----|-----|-------------|-------------|-------------|-------------|
| Land Use                | tons           | tons/yr |     |    |     | MT/yr       |             |             |             |
| User Defined Industrial | 0              |         |     |    |     | 0.00        | 0.00        | 0.00        | 0.00        |
| <b>Total</b>            |                |         |     |    |     | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |

## 9.0 Vegetation

---