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<b>Organization:</b>	Jacobs
<b>Submitter Role:</b>	Applicant Consultant
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<b>Docketed Date:</b>	4/4/2022

# **San José City Data Center (19-SPPE-04)**

## **Opening Testimony**

Submitted to  
California Energy Commission

Prepared by  
Microsoft Corporation

with technical assistance from

**JACOBS**<sup>®</sup>

April 2022



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Appendix A: Resumes

# Project Description

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## I. Introduction

- A. **Names:** Jerry Salamy, Sarah Madams, Sieu Quan
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Final Environmental Impact Report (FEIR) TN 241977-1 and 241977-2 and agree that it adequately describes the project including both on-site and off-site components is sufficient detail to enable a thorough analysis of the potential impacts.

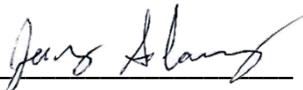
**DECLARATION OF  
JERRY SALAMY**

I, Jerry Salamy, declare as follows:

1. I am presently employed by Jacobs Engineering Group Inc. as Project Manager.
2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.
3. The testimony on Introduction, Project Description, Air Quality, Greenhouse Gas, Land Use and Planning, Noise, Transportation, and Environmental Justice for the San José City Data Center (19-SPPE-04) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.
5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 3/14/2022

Signed: 

**DECLARATION OF  
SARAH MADAMS**

I, Sarah Madams, declare as follows:

1. I am presently employed by Jacobs Engineering Group Inc. as Project Manager.
2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.
3. The testimony on Introduction, Project Description, Aesthetics, Agriculture and Forestry, Biological Resources, Energy, Geology and Soils, Hazards and Hazardous Materials, Mineral Resources, Population and Housing, Public Services, Recreation, Utilities and Service Systems, and Wildfire for the San José City Data Center (19-SPPE-04) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.
5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: March 14, 2022

Signed: 

**DECLARATION OF  
SIEU QUAN**

I, Sieu Quan, declare as follows:

1. I am presently employed by Microsoft as Design Manager, AMER West Region.
2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.
3. The testimony on Introduction and Project Description for the San José City Data Center (19-SPPE-04) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.
5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: Mar 10, 2022

Signed:   
Sieu Quan (Mar 10, 2022 11:00 PST)

# Aesthetics

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## I. Introduction

- A. **Names:** Megan Sebra, Sarah Madams
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Aesthetics Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that with implementation of the project design features described in the *Small Power Plant Exemption Application for the San José City Data Center* docketed on November 15, 2019, the project's potential impacts related to Aesthetics, including potential cumulative impacts, will be less than significant.

**DECLARATION OF  
MEGAN SEBRA**

I, Megan Sebra, declare as follows:

1. I am presently employed by Jacobs Engineering Group Inc. as a Project Manager.
2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.
3. The testimony on Aesthetics, Agriculture and Forestry, Energy, Geology and Soils, and Mineral Resources for the San José City Data Center (19-SPPE-04) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.
5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: March 14, 2022

Signed: *Megan Sebra*

# Agriculture and Forestry

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## I. Introduction

- A. **Names:** Megan Sebra, Sarah Madams
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Agriculture and Forestry Resources Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that the project's potential impacts related to Agricultural and Forestry Resources, including potential cumulative impacts, will be less than significant.

# Air Quality

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## I. Introduction

- A. **Names:** Elyse Engel, Jerry Salamy
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Air Quality Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that with implementation of the project design features described in the *Small Power Plant Exemption Application for the San José City Data Center* docketed on November 15, 2019 and Mitigation Measure AQ-1, the project's potential impacts related to Air Quality, including potential cumulative impacts, will be less than significant.

**DECLARATION OF  
ELYSE ENGEL**

I, Elyse Engel, declare as follows:

1. I am presently employed by Jacobs Engineering Group Inc. as an Air Quality Specialist.
2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.
3. The testimony on Air Quality and Greenhouse Gas for the San José City Data Center (19-SPPE-04) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.
5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: March 14, 2022



Signed: \_\_\_\_\_

# Biological Resources

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## I. Introduction

- A. **Names:** Scott Lindemann, Dave Rasmussen, Sarah Madams
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Biological Resources Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that with implementation of the project design features described in the *Small Power Plant Exemption Application for the San José City Data Center* docketed on November 15, 2019 and Mitigation Measures BIO-1 through BIO-20, the project's potential impacts related to Biological Resources, including potential cumulative impacts, will be less than significant.

**DECLARATION OF  
DAVE RASMUSSEN**

I, Dave Rasmussen, declare as follows:

1. I am presently employed by Jacobs Engineering Group Inc. as a Career Biologist/Talent Supervisor.
2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.
3. The testimony on Biological Resources for the San José City Data Center (19-SPPE-04) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.
5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 03/14/2022

Signed: 

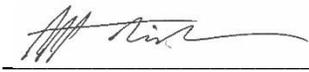
**DECLARATION OF  
SCOTT LINDEMANN**

I, Scott Lindemann, declare as follows:

1. I am presently employed by Jacobs Engineering Group Inc. as Biologist.
2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.
3. The testimony on Biological Resources for the San José City Data Center (19-SPPE-04) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.
5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: March 14, 2022

Signed:  \_\_\_\_\_

# Cultural and Tribal Resources

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## I. Introduction

- A. **Names:** Jeremy Hollins
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Cultural and Tribal Resources Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that with implementation of the project design features described in the *Small Power Plant Exemption Application for the San José City Data Center* docketed on November 15, 2019 and Mitigation Measures CUL-1 through CUL-6, the project's potential impacts related to Cultural and Tribal Cultural, including potential cumulative impacts, will be less than significant.

**DECLARATION OF  
JEREMY HOLLINS**

I, Jeremy Hollins, declare as follows:

1. I am presently employed by Jacobs Engineering Group, Inc. as Senior Architectural Historian.
2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.
3. The testimony on Cultural Resources and Tribal Cultural Resources for the San José City Data Center (19-SPPE-04) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.
5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 3/14/2022

Signed:  \_\_\_\_\_

# Energy

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## I. Introduction

- A. **Names:** Megan Sebra, Jordan Grace, Sarah Madams
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Energy and Energy Resources Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that with implementation of the project design features described in the *Small Power Plant Exemption Application for the San José City Data Center* docketed on November 15, 2019, the project's potential impacts related to Energy and Energy Resources, including potential cumulative impacts, will be less than significant.

**DECLARATION OF  
JORDAN GRACE**

I, Jordan Grace, declare as follows:

1. I am presently employed by Jacobs Engineering Group Inc. as Environmental Planner.
2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.
3. The testimony on Energy, Population and Housing, and Public Services for the San José City Data Center (19-SPPE-04) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.
5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 3/14/2022

Signed: \_\_\_\_\_

A handwritten signature in black ink, appearing to be 'JG', written over a horizontal line.

# Geology and Soils

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## I. Introduction

- A. **Names:** Megan Sebra, Sarah Madams
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Geology and Soils Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that with implementation of the project design features described in the *Small Power Plant Exemption Application for the San José City Data Center* docketed on November 15, 2019 and Mitigation Measure GEO-1, the project's potential impacts related to Geology and Soils, including potential cumulative impacts, will be less than significant.

# Greenhouse Gas

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## I. Introduction

- A. **Names:** Elyse Engel, Jerry Salamy
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Greenhouse Gas Emissions Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that with implementation of the project design features described in the *Small Power Plant Exemption Application for the San José City Data Center* docketed on November 15, 2019 and Mitigation Measures GHG-1 through GHG-3, the project's potential impacts related to Greenhouse Gas Emissions, including potential cumulative impacts, will be less than significant.

# Hazards and Hazardous Materials

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## I. Introduction

- A. **Names:** Steve Long, Sarah Madams
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Hazardous Materials Section of the Final Environmental Impact Report (TN 241977-1 and 241977-2), the Addendum to the Final Environmental Impact Report Part 1 for the San José Data Center SPPE Proceeding (242489) and agree with its analysis and conclusion that with implementation of the project design features described in the *Small Power Plant Exemption Application for the San José City Data Center* docketed on November 15, 2019 and Mitigation Measure HAZ-1, the project's potential impacts related to Hazards and Hazardous Materials, including potential cumulative impacts, will be less than significant.

**DECLARATION OF  
STEVE LONG**

I, Steve Long, declare as follows:

1. I am presently employed by Jacobs Engineering Group Inc. as Environmental Scientist Professional Career Level.
2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.
3. The testimony on Hazards and Hazardous Materials and Wildfire for the San José City Data Center (19-SPPE-04) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.
5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: Mar 14, 2022

Signed: 

# Hydrology and Water Quality

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## I. Introduction

- A. **Names:** Matt Franck, Sam Schoevaars
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Hydrology and Water Quality Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that with implementation of the project design features described in the *Small Power Plant Exemption Application for the San José City Data Center* docketed on November 15, 2019, the project's potential impacts related to Hydrology and Water Quality, including potential cumulative impacts, will be less than significant.

**DECLARATION OF  
MATT FRANCK**

I, Matt Franck, declare as follows:

1. I am presently employed by Jacobs Engineering Group Inc. as a Senior Planner.
2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.
3. The testimony on Hydrology and Water Quality for the San José City Data Center (19-SPPE-04) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.
5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: March 14, 2022

Signed: M Franck

**DECLARATION OF  
SAM SCHOEVAARS**

I, Sam Schoevaars, declare as follows:

1. I am presently employed by Jacobs Engineering Group Inc. as Environmental Planner.
2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.
3. The testimony on Hydrology and Water Quality for the San José City Data Center (19-SPPE-04) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.
5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: March 14, 2022

Signed: 

# Land Use and Planning

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## I. Introduction

- A. **Names:** Jerry Salamy
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Land Use and Planning Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that with implementation of the project design features described in the *Small Power Plant Exemption Application for the San José City Data Center* docketed on November 15, 2019, the project's potential impacts related to Land Use and Planning, including potential cumulative impacts, will be less than significant.

# Mineral Resources

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## I. Introduction

- A. **Names:** Megan Sebra, Sarah Madams
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Mineral Resources Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that the project's potential impacts related to Mineral Resources, including potential cumulative impacts, will be less than significant.

# Noise

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## I. Introduction

- A. **Names:** Mark Bastasch, Jerry Salamy
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

With implementation of the project design features described in the *Small Power Plant Exemption Application for the San José City Data Center* docketed on November 15, 2019, and as further described [and modified] in the Applicants Exhibits identified in the PreHearing Conference Statements, the project's potential impacts on Noise will be less than significant. We also conclude that with implementation of the project design features the project complies with all applicable laws, ordinances, regulations and standards.

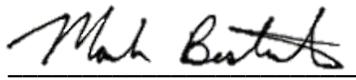
**DECLARATION OF  
MARK BASTASCH**

I, Mark Bastasch, declare as follows:

1. I am presently employed by Jacobs Engineering Group Inc. as an Acoustical Engineer.
2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.
3. The testimony on Noise for the San José City Data Center (19-SPPE-04) was reviewed by me.
4. It is my professional opinion that the prepared testimony conclusions are valid and accurate with respect to the issue(s) addressed herein.
5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: March 14, 2022

Signed: 

# Population and Housing

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## I. Introduction

- A. **Names:** Jordan Grace, Sarah Madams
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Population and Housing Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that the project's potential impacts related to Population and Housing, including potential cumulative impacts, will be less than significant.

# Public Services

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## I. Introduction

- A. **Names:** Jordan Grace, Sarah Madams
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Public Services Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that the project's potential impacts related to Public Services, including potential cumulative impacts, will be less than significant.

# Recreation

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## I. Introduction

- A. **Names:** Maliheh Rostami, Sarah Madams
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Recreation Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that with implementation of the project design features described in the *Small Power Plant Exemption Application for the San José City Data Center* docketed on November 15, 2019, the project's potential impacts related to Recreation, including potential cumulative impacts, will be less than significant.

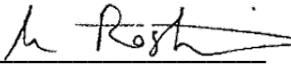
**DECLARATION OF  
MALIHEH ROSTAMI**

I, Maliheh Rostami, declare as follows:

1. I am presently employed by Jacobs Engineering Group Inc. as Environmental Planner.
2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.
3. The testimony on Recreation and Utilities and Service Systems for the San José City Data Center (19-SPPE-04) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.
5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: March 14, 2022

Signed: 

# Transportation

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## I. Introduction

- A. **Names:** Loren Bloomberg, Jerry Salamy
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Transportation Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that with implementation of the project design features described in the *Small Power Plant Exemption Application for the San José City Data Center* docketed on November 15, 2019 and Mitigation Measure TRA-1, the project's potential impacts related to Transportation, including potential cumulative impacts, will be less than significant.

**DECLARATION OF  
LOREN BLOOMBERG**

I, Loren Bloomberg, declare as follows:

1. I am presently employed by Jacobs Engineering Group Inc. as the Global Traffic Engineering/Operations Technology Leader.
2. A copy of my professional qualifications and experience are attached hereto and incorporated herein by reference.
3. The testimony on Transportation for the San José City Data Center (19-SPPE-04) was prepared either by me or under my supervision, and is based on my independent analysis, data from reliable sources, and my professional experience and knowledge.
4. It is my professional opinion that the prepared testimony is valid and accurate with respect to the issue(s) addressed herein.
5. I am personally familiar with the facts and conclusions presented in the testimony and if called as a witness could testify competently thereto.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to the best of my knowledge and belief.

Dated: 3/14/22

Signed: 

# Utilities and Service Systems

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## I. Introduction

- A. **Names:** Maliheh Rostami, Sarah Madams
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Utilities and Service Systems Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that the project's potential impacts related to Utilities and Service Systems, including potential cumulative impacts, will be less than significant.

# Wildfire

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## I. Introduction

- A. **Names:** Steve Long, Sarah Madams
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Wildfire Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that the project's potential impacts related to Wildfire, including potential cumulative impacts, will be less than significant.

# Environmental Justice

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## I. Introduction

- A. **Names:** Jerry Salamy
- B. **Qualifications:** The panel's qualifications are as noted in their resumes contained in Appendix A.
- C. **Exhibits:** In addition to the statements herein, this testimony incorporates by reference the Exhibits identified in the Applicant's PreHearing Conference Statements.

The facts contained in this testimony are true and correct to the best of our knowledge and belief. To the extent this testimony contains opinions, such opinions reflect our best professional judgment. We make these statements and render these opinions freely and under oath for the purpose of constituting sworn testimony in this proceeding.

## II. Summary of Testimony

We have reviewed the Environmental Justice Section of the Final Environmental Impact Report (FEIR), TN 241977-1 and 241977-2, and agree with its analysis and conclusion that with implementation of the project design features described in the *Small Power Plant Exemption Application for the San José City Data Center* docketed on November 15, 2019, the project's potential impacts related to Environmental Justice, including potential cumulative impacts, will be less than significant.

# **Appendix A**

## **Resumes**

## Jerry Salamy | PRINCIPAL PROJECT MANAGER

### Profile

Mr. Salamy has 30 years of experience, including assignments as Project Manager for 19 Applications for Certification (AFC) before the California Energy Commission (CEC). Mr. Salamy has also been the Deputy Project Manager or Technical Lead on an additional 13 AFCs. He has assisted clients in satisfying the CEC construction compliance requirements for numerous projects, has prepared over 32 petitions to amend CEC licenses, and has prepared and provided expert witness testimony in CEC hearings.

#### Education | Qualifications

B.A., Chemistry, Holy Names College, Oakland

#### Areas of Expertise

- Over 30 years of experience in energy development and environmental compliance support throughout California and the western US.
- Development of CEQA compliant documents utilizing teams composed of internal/external members
- Permitting, licensing, and construction of fossil and renewable energy projects and associated linear facilities throughout California and Nevada
- Skilled in data collection and permit analysis for complex projects.
- Technical expertise in air quality permitting and compliance assessments.

### RELEVANT PROJECT EXPERIENCE

Application for Certification; Alamitos Energy Center, Long Beach, CA, September 2012 – June 2020

**Client:** AES Southland Development LLC

**Title:** Program Manager and Air Quality Lead

Planned and executed the preparation of an AFC for a 1,040-MW repower of the existing Alamitos Beach Generating Station located within the coastal zone of Long Beach, CA. The project required the preparation of numerous studies and a Prevention of Significant Deterioration (PSD) permit application submitted to the South Coast Air Quality Management District. The AFC was required to demonstrate conformance with the City of Long Beach’s Local Coastal Program. The Coastal Commission has been consulted by the CEC and indicated they are not expecting to comment of the CEC’s license. The CEC issued the final decision for the project in May 2017.

Application for Certification; Redondo Beach Energy Project, Redondo Beach, CA, September 2012 – June 2016

**Client:** AES Southland Development LLC

**Title:** Program Manager and Air Quality Lead

Managed the preparation of the air quality section of an AFC for a 546-MW combined cycle repower of the existing Redondo Beach Generating Station. The project required the preparation of numerous studies and a Prevention of Significant Deterioration (PSD) permit application submitted to the South Coast Air Quality Management District. Air permitting required extensive document preparation to demonstrate the project was employing the Best Available Control Technology to control greenhouse gas emissions. The project was actively opposed by several public groups and the City of Redondo Beach. Project permitting was suspended until a Power Purchase Agreement can be secured from the electric utility through the Request for Offer process.

Application for Certification; Huntington Beach Energy Project, Huntington Beach, CA, September 2012 – June 2020

**Client:** AES Southland Development LLC

**Title:** Program Manager and Air Quality Lead

Planned and executed the preparation of the AFC for a 840-MW repower of the existing Huntington Beach Generating Station located within the coastal zone of Huntington Beach, CA. The AFC was required to demonstrate conformance with the City of Huntington Beach's Local Coastal Program (LCP). The Coastal Commission issued a report to the CEC defining areas where, in its opinion, the project did not conform to the LCP requirements. Mr. Salamy mobilized a team to prepare a rebuttal to the Coastal Commission's assertions, which was adopted by the CEC in its license. The CEC issued the final decision for the project in May 2017.

Application for Certification, Mariposa Energy Project, Tracy, CA, January 2009 – June 2013

**Client:** Diamond Generating Corporation

**Title:** Air Quality Lead

Managed the preparation of the air quality section of an AFC for a 200-MW peaking power plant near Tracy, CA. The project required the preparation of numerous other studies and a permit application submitted to the Bay Area Air Quality Management District. Air permitting required extensive document preparation to demonstrate the project was employing the Best Available Control Technology to control air emissions. The project was highly contested with a significant level of public involvement.

Application for Certification and Construction Compliance Support, Los Esteros Critical Energy Facility, San Jose, CA, May 2001 – July 2003

**Client:** Calpine C\*Power

**Title:** Project Manager

Managed the preparation of the AFC for a 180-MW power plant in San Jose. The project required the preparation of numerous other studies/documents to satisfy CEC staff requests. These studies/documents included the preparation of a General Plan amendment and planned development zoning applications, archaeological and paleontological survey reports, and biological resource protection permits, including a CDFW Section 1600 lake and streambed Alteration application, a Corp of Engineers Section 404 application, and Regional Water Quality Control Board Section 401 application.

Mr. Salamy also managed the development and implementation of biological, cultural, and paleontological resource monitoring programs; risk management plan; traffic and transportation management plan; waste reduction program; and an electromagnetic force evaluation for project construction.

Application for Certification, East Altamont Energy Center, Tracy, CA, November 2000 – August 2003

**Client:** Calpine Corp.

**Title:** Project Manager

Managed the preparation of the East Altamont Energy Center AFC for a 1,100-MW power plant in Tracy. Mr. Salamy also prepared the alternative site and generating technologies analyses, ammonia risk assessments, and provided general licensing support. This project included a 4 mile transmission line to interconnect the project to the Western Tracy Substation.

Application for Certification, Metcalf Energy Center, San Jose, CA, November 1998 – November 2001

**Client:** Calpine Corp.

**Title:** Deputy Project Manager

Assisted in the management of the preparation of the Metcalf Energy Center AFC. Mr. Salamy was responsible for the development and tracking of data response submittals requested by the CEC. Mr. Salamy also authored data responses for hazardous materials management.

Walnut Energy Center, Turlock, CA, June 2002 – February 2004

**Client:** Turlock Irrigation District

**Title:** Deputy Project Manager

Assistant project manager for the licensing of this 250-MW combined-cycle generating facility configured using two natural-gas-fired combustion turbines and one steam turbine. Managed the ammonia risk assessment, preparing a detailed analysis showing the probability of and potential effects of an accidental release on nearby residential receptors. Also assisted in responding to numerous hazardous materials handling issues.

Vernon Power Plant, City of Vernon, California, February 2006 – September 2009

**Client:** City of Vernon

**Title:** Deputy Project Manager and Air Quality Lead

Prepared the air quality permit and Application for Certification for 913 megawatt (MW) base load facility consisting of three natural-gas-fired turbines and heat recovery steam generators, one steam turbine, and associated equipment. The project will employ Siemen combustion turbine generators (CTG) that integrate new "fast start" technology to decrease the combustion turbine's start up duration and air emissions.

Application for Certification, Salton Sea Unit 6 Geothermal Power Plant, Imperial County, CA, August 2002 – December 2003

**Client:** Mid American Energy Holding Company

**Title:** Project Manager

Mr. Salamy managed the licensing of a 185-MW geothermal power plant in Imperial County, California. The power plant design was based on the flash geothermal power plant process, which produces both solid and liquid byproducts (brine cake and spent brine) that required disposal. The project site was located in a rural area of Imperial County, but was adjacent to a National Wildlife Refuge that supports significant populations of avian species. The licensing process involved the review of all environmental areas, specifically focused on waste disposal, air quality, hazardous materials handling, and biological resources. Mr. Salamy managed preparation of over 500 data responses to requests submitted by the State and the public. The project was successfully completed, with a license issued by the California Energy Commission.

In addition to the power plant license, a Biological Assessment (BA) was submitted to United States Fish and Wildlife Service for the Section 7 consultation due to potential wildlife impacts. The primary wildlife species addressed in the BA were Yuma Clapper rails, Burrowing Owls, Mountain Plover, and California Brown Pelicans. Extensive Yuma Clapper rail protocol surveys were performed to support the BA development and subsequent compliance with the Biological Opinion. Project components required the fill of a small portion of the Salton Sea and several ephemeral streams associated with the 31 mile transmission lines. These fill activities required the preparation of a Bureau of Land Management (BLM) Plan of Development and wetland delineations that were submitted to the Corp of Engineers in support of the Section 404 permit applications and California Department of Fish and Wildlife Section (CDFW) 1600 Lake and Streambed Alteration permit.

Mr. Salamy also prepared an amendment to the California Energy Commission license to allow for the generation of an additional 35 megawatts of electricity through increased geothermal fluid extraction combined with the use of an organic rankin cycle (ORC) system. The ORC was designed to use waste heat from the geothermal fluid after passing through the steam generation portion of the binary type geothermal process. The modification to the project required CH2M to complete the reanalysis of the impacts to all environmental areas.

## Sarah Madams | SENIOR PROJECT MANAGER

### Profile

Over nineteen years of professional experience including project management, regulatory compliance, permitting, data collection and analysis, audits, and technical writing.

#### Education | Qualifications

B.S., Environmental Toxicology, UC Davis

#### Areas of Expertise

- Over 19 years of experience in project management and environmental compliance for multiple utilities throughout California.
- Expert ability for development of CEQA compliant documents utilizing large multidisciplinary teams composed of internal and external team members
- Experience with permitting, licensing, and construction of natural gas, nuclear, solar, wind, and hydroelectric facilities and associated linear facilities throughout California
- Skilled in data collection and permit analysis for large multifaceted facilities.
- Technical expertise in multimedia compliance audits.

### RELEVANT PROJECT EXPERIENCE

Laurelwood Data Center, Santa Clara County, California

**Client:** Edgcore

**Title:** Deputy Project Manager

Deputy Project Manager for the Small Power Plant Exemption (SPPE) before the California Energy Commission for a data center within the City of Santa Clara. Oversaw the preparation of several technical discussions including Geology, Population & Housing, and Utilities. Prepared the Hazardous Materials and Energy sections of the SPPE. Coordinated biological and cultural surveys of the project area. Addressed multidisciplinary issues received from state and local agencies.

Almond 2 Power Plant, January 2009 – June 2012

**Client:** Turlock Irrigation District

**Title:** Project Manager

Preparation of license application and construction oversight for a 174-megawatt simple-cycle power plant, including construction and permitting of an 11.6-mile-long Pacific Gas and Electric Company natural gas pipeline, and 2.9-mile-long rerated transmission line within Stanislaus County, CA. Managed a multidisciplinary team of scientists, planners, and engineers in preparing and filing the license application before the California Energy Commission and preconstruction and construction compliance documents including biological, cultural, paleontological, worker safety, stormwater, water resources, and waste management. Coordinated efforts between CEC project management, local and state agencies and project staff. The plant is currently in operation.

Redondo Beach Energy Project, Redondo Beach, California

**Client:** AES

**Title:** Project Manager

Managed the preparation of the Redondo Beach Energy Project AFC for a 546-MW combined cycle repower of the existing Redondo Beach Generating Station located in a densely populated area of Redondo Beach, CA. The project is actively opposed by several public groups and the City of Redondo Beach. Managed a multidisciplinary team of

scientists, planners, and engineers in preparing and filing the license application. Coordinated biological, cultural, paleontological, visual and noise surveys of the project area. Attended public workshops and hearings.

Lodi Energy Center, January 2008 – November 2012

**Client:** Northern California Power Agency

**Title:** Project Manager

Preparation of license application and construction oversight for a 255-megawatt combined-cycle power plant including a 1.6 mile-long Pacific Gas and Electric Company natural gas pipeline within San Joaquin County, CA. Managed a multidisciplinary team of scientists, planners, and engineers in preparing and filing the license application and preconstruction and construction compliance documents for the California Energy Commission. Coordinated efforts between California Energy Commission project management, local and state agencies and project staff. Conducted FAA airspace analysis for construction of facility and gas line. The Plant is currently in operation.

Application for Certification; Alamitos Energy Center, Long Beach, California

**Client:** AES Southland Development LLC

**Title:** Deputy Project Manager

Deputy project manager for the licensing for a 1,950-MW combined cycle repower of the existing Alamitos Beach Generating Station located in Long Beach, CA. The project includes a 1,000-foot-long pipeline. Assisted with managing a team of planners and scientists preparing documents in support of the California Energy Commission Application for Certification. Addressed multidisciplinary issues received from state and local agencies.

Russell City Energy Center Amendment, Alameda County, California

**Client:** Calpine

**Title:** Deputy Project Manager

Deputy Project Manager for the Application for Certification before the California Energy Commission for a 600-megawatt power plant. Prepared and provided written testimony for the waste management, alternatives, worker health and safety and hazardous waste sections of the Application for Certification. Coordinated biological and cultural surveys of the project area. Addressed multidisciplinary issues received from state and local agencies. Attended public workshops and hearings. The plant is currently in operation.

Los Esteros Critical Energy Facility, San Jose, California

**Client:** Phase 2 Construction Calpine

**Title:** Project Manager

Project Manager for 180-megawatt conversion to combined cycle. The project required the preparation of numerous studies and documents to satisfy California Energy Commission Conditions of Certification. These studies/documents included the preparation of archaeological and paleontological survey reports, and biological resource protection permits. Assisted with the development and implementation of biological, cultural, and paleontological resource monitoring programs; risk management plan; and traffic and transportation management plan. The plant is currently in operation.

Pahnamid Wind Energy Project, October 2011 - December 2013

**Client:** Confidential Client

**Title:** Project Manager

Preparation of studies and documents to satisfy Kern County, California Environmental Quality Act and National Environmental Policy Act processes for a 411-megawatt wind power project adjacent to the Tehachapi wind

resource area. Project manager for the environmental permitting and Project included conducting paleontological, cultural and biological resources surveys, evaluating potential project impacts and identifying mitigation measures through consultations with local, state and federal agencies including Kern County, California Department of Fish and Game and the U.S. Fish and Wildlife Service.

Rice Solar Energy Project Licensing and Preconstruction Compliance, Riverside County, California

**Client:** SolarReserve, LLC

**Title:** Deputy Project Manager

Deputy project manager for licensing and preconstruction compliance for a 150-megawatt concentrating solar energy project featuring a mirror field of 17,500 heliostats, solar receiver tower, and integral thermal storage using a liquefied salt mixture. The project design includes a 1,410-acre project site, air-cooled condenser, steam turbine generator, hot and warm salt storage tanks, and 9.2-mile-long 230-kilovolt transmission line. Assisted with managing a team of planners and scientists preparing documents in support of the California Energy Commission Application for Certification. Managed preparation of preconstruction compliance documents under review by the CEC and other agencies, including Bureau of Land Management, Western Area Power Administration, U.S. Fish and Wildlife Service, California Department of Fish and Game, and other agencies.

MW Solar PV Program San Joaquin County, June 2010 – September 2010

**Client:** PG&E

**Title:** Task Lead

Preparation of Project Environmental Assessment Reports for four separate solar photovoltaic farms located throughout San Joaquin County. Involved complete CEQA analysis for each facility and coordination with local, state, and federal agencies.

Diablo Valley Power Plant, January 2018 – May 2018

**Client:** PG&E

**Title:** Task Lead

Prepared analysis of discretionary and ministerial permits currently in place at the DCPD and assisted with development of a Project Management Plan for the Future Land Use Plan related to the decommissioning of the DCPD. Involved review of existing permits, leases, and future permits needed after DCPD shutdown, as well as anticipated schedule for future decommissioning activities.

Upper American River Project FERC License Recreation Implementation, Sacramento, California, November 2015 - January 2018

**Client:** Sacramento Municipal Utility District

**Title:** Project Manager

Project Manager on the UARP Recreation Implementation team. Duties included the management of multiple recreation project improvement and construction projects on US Forest Service land within the Eldorado National Forest. Permitting, engineering, and contracting for multiple recreation facilities within the Eldorado National Forest including the reconstruction of the 100+ site Sunset campground; a 9.3-mile-long back country trail, composting toilet installation, and a 1.6-mile-long Class II bike trail. Also prepared the UARP Safety During Construction Plan for recreation implementation and developed contractor safety documents for working in remote locations. Conducted regular project reviews with project teams (both internal staff and contractors). Coordinated multiple meetings with USFS and agency staff to gain concurrence on project design and schedule.



## Sieu Quan | PE, LEED AP

Design Manager, Datacenter Engineering, AMER West Region

### PROFILE

Sieu has over 26 years of experience in design and project management, who has developed a reputation for delivering exceptional project management service for both public and private clients. He currently serves as Design Manager for Microsoft's Datacenter Engineering group, overseeing Architect/Engineering teams for datacenter design and construction in the America West Region. Sieu is a licensed Professional Engineer who has successfully managed multiple large concurrent design and construction projects for key clients, including The Boeing Company, US Navy, US Corps of Engineer, US Coast Guard, and US Air Force. He brings experience from a diverse background of projects, including management of multidisciplinary teams for commercial, military, aviation, industrial, and hyperscale projects.

#### Education | Qualifications Areas of Expertise

M.S. Civil Engineering, University of Washington, Seattle, WA

- Managed multidisciplinary design teams and project delivery
- Managed multiple large concurrent projects with overlapping deliverable schedules
- Managed design and construction support phases for large-scale projects

### RELEVANT PROJECT EXPERIENCE

#### **SJC02 Datacenter** | San Jose, CA

Microsoft Design Manager, managing a multidisciplinary Architect/Engineering team for the campus design of a datacenter located in San Jose, CA.

#### **SJC04 Datacenter** | San Jose, CA

Microsoft Design Manager, managing a multidisciplinary Architect/Engineering team for the campus design of a datacenter located in San Jose, CA.

#### **CYS13 Datacenter** | Cheyenne, WY

Microsoft Design Manager, managing a multidisciplinary Architect/Engineering team for the construction support of a datacenter campus located in Cheyenne, WY.

#### **CYS17 Datacenter** | Cheyenne, WY

Microsoft Design Manager, managing a multidisciplinary Architect/Engineering team for the construction support of a datacenter campus located in Cheyenne, WY.

#### **CYS01-08 Campus Telecommunication Infrastructure Upgrade** | Cheyenne, WY

Microsoft Design Manager, managing a multidisciplinary Architect/Engineering team for the design of campus-wide telecommunication infrastructure upgrades to accommodate future expansion.

**Megan Sebra** | PROJECT MANAGER

## Profile

Over fourteen years of professional experience including project management, regulatory compliance, permitting, data collection and analysis and technical writing.

## Education | Qualifications

B.S. Geological Sciences, UC Santa Barbara

**RELEVANT PROJECT EXPERIENCE**

Confidential, Ohio, January 2020 – present

**Client:** Confidential

**Title:** Project Manager

Siting and public engagement services for approximately three miles of new transmission line within the City of Columbus.

Initial Study, California, October 2019 – July 2020

**Client:** Confidential

**Title:** Task Lead

Preparation of an Initial Study (IS) for a proposed site excavation in rural Shasta County. The IS evaluated all environmental resources and identified mitigation for significant impacts.

Bloodlines Vineyard Environmental Impact Report, Napa County, October 2017 – March 2019

**Client:** Bloodlines Vineyard LLC.

**Title:** Project Manager

Preparation of Project Environmental Assessment Reports for the 278-acre Bloodlines Vineyard Erosion Control Plan EIR. Involved complete CEQA analysis for the 278-acre property and coordination with local, state, and federal agencies.

Heiser-West Lane Vineyard Environmental Impact Report, Napa County, October 2017 – March 2019

**Client:** Napa County

**Title:** Project Manager

Preparation of Project Environmental Assessment Reports for the 5-acre Heiser-West Lane Vineyard Erosion Control Plan EIR. Involved complete CEQA analysis for the 21-acre property and coordination with local, state, and federal agencies.

LeColline Vineyard Environmental Impact Report, Napa County, October 2017 – March 2019

**Client:** Napa County

**Title:** Project Manager

Preparation of Project Environmental Assessment Reports for the 33-acre Heiser-West Lane Vineyard Erosion Control Plan EIR. Involved complete CEQA analysis for the 88-acre property and coordination with local, state, and federal agencies.

Application for Certification, Mariposa Energy Project, Alameda County, California, 2009 – 2011

**Client:** Mariposa Energy, LLC

**Title:** Project Coordinator

Project Coordinator for the AFC for a 200-MW power plant. The project required the preparation of numerous other studies/documents to satisfy the CEC staff request. She reviewed applications, coordinated multidisciplinary data requests and responses, attended public workshops, and prepared a site investigation report for the process water route. Assisted in preparation of Hazardous Materials, and Worker Health and Safety sections of the AFC, and authored the Construction and Operational Waste Management Plans. In addition, she served as liaison and coordinated efforts between CEC project management and staff and completed FAA Notice of Proposed Construction or Alteration (Form 7460-1) as required.

Application for Certification, Oakley Generating Station, Oakley, California, 2009 – 2011

**Client:** Contra Costa Generating Station LLC

**Title:** Task Manager

Assisted with several aspects of the AFC for a 500-MW combined-cycle power plant. Assisted in preparation of Geology Section for the AFC and prepared the Construction Waste Management Plan.

Almond 2 Power Plant, Stanislaus County, California, January 2009 – June 2011

**Client:** Turlock Irrigation District

**Title:** Task Manager

Preparation of license application and construction oversight for a 174-megawatt simple-cycle power plant within Stanislaus County, CA. Review of applications, coordination of multidisciplinary data requests and responses, attend public workshops, and preparation a site investigation report for the process water route. Assisted in preparation of Alternatives Sections for the AFC and prepared the Construction Waste Management Plan. Served as liaison and coordinated efforts between CEC project management and staff and completion of the FAA Notice of Proposed Construction or Alteration (Form 7460-1) as required.

Lodi Energy Center, San Joaquin County, California, January 2008 – November 2012

**Client:** Northern California Power Agency

**Title:** Task Manager

Preparation of license application and construction oversight for a 255-megawatt combined-cycle power plant within San Joaquin County, CA. Managed a multidisciplinary team of scientists, planners, and engineers in preparing and filing the license application and preconstruction and construction compliance documents for the California Energy Commission. Coordinated efforts between California Energy Commission project management, local and state agencies and project staff. Conducted FAA airspace analysis for construction of facility and gas line. The Plant is currently in operation.

Carlsbad Energy Center Project, Carlsbad, CA, 2007 – 2011

**Client:** NRG Energy

**Title:** Deputy Project Manager

Preparation of the AFC for a 558-MW simple-cycle power plant. Review of applications, coordination of multidisciplinary data requests and responses, and served as liaison and coordinated efforts between CEC project management and staff. Completion of FAA Notice of Proposed Construction or Alteration (Form 7460-1) as required.

GWF Tracy Combined Cycle Power Plant Project, Tracy, CA, 2008

**Client:** GWF Energy

**Title:** Task Lead

Assisted with several aspects of the Application for Certification for a 314-MW combined-cycle power plant. Review of applications, coordination of multidisciplinary data requests and responses, and served as liaison and coordinated efforts between CEC project management and staff. Completion of the FAA Notice of Proposed Construction or Alteration (Form 7460-1) as required.

Union Pacific Train Derailment, San Timoteo and Wendel, San Timoteo and Wendel, California, 2007 – 2008

**Client:** Union Pacific Railroad

**Title:** Geologist

Perform task management for the preparation of field events to support site closure. Tasks include data analysis, field work, and planning activities for derailment sites at San Timoteo and Wendel, California. Fieldwork included soil, and groundwater sampling, the installation of groundwater monitoring wells. These tasks aided in the preparation of RI reports and delineation of contamination.

## Elyse Engel | PROJECT MANAGER; AIR QUALITY SPECIALIST

### Profile

Elyse Engel is a chemical process engineer, specializing in air quality. She is experienced in air quality compliance, including preparing greenhouse gas (GHG) emissions inventories, construction and operational air emissions estimates in support of California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) evaluations, air dispersion modeling, human health risk assessments (HHRAs), and risk management plans (RMPs). Elyse has prepared CEQA and NEPA permitting documentation using both URBEMIS2007 and CalEEMod to estimate construction and operation-related emissions for purposes of demonstrating a project's less-than-significant impacts relative to the available thresholds.

Education   Qualifications	BS Chemical Engineering, Massachusetts Institute of Technology (MIT), 2007
Registrations   Certifications	Engineer in Training, California
Areas of Expertise	<ul style="list-style-type: none"> <li>• Experience managing multi-media compliance projects</li> <li>• Experience preparing CEQA/NEPA Air Quality Analyses</li> <li>• Air permitting experience</li> <li>• GHG reporting experience</li> </ul>

### RELEVANT PROJECT EXPERIENCE

Small Power Plant Exemption (SPPE) Application Preparation, California, 2019 – present

**Client:** Various clients

**Title:** Task Lead

Estimated short- and long-term emissions associated with construction and operation, respectively, of data centers using CalEEMod methodology and emission factors from EMFAC. Drafted and revised the Air Quality and Greenhouse Gas sections of the SPPEs and the accompanying appendices, including evaluations of applicable federal, state, and local air and GHG regulations. Supported preparation of HHRAs to evaluate potential risk of short- and long-term exposure to emitted toxic air contaminants. As part of the California Energy Commission (CEC) review process, prepared additional technical evaluations to respond to CEC Staff inquiries, including evaluation of the projects' ability to comply with the Bay Area Air Quality Management District's (BAAQMD) new policy regarding the potential to emit for emergency backup power generators.

Compliance Assistance, Santa Clara, California, 2016 – present

**Client:** Intel

**Title:** Task Lead

Provided multi-media compliance support to Intel's Bowers campus, coordinating with technical experts within Jacobs as needed. Topics evaluated include the shelf-life and ongoing effectiveness of activated carbon, waste discharge requirements, storm water program requirements, and hazardous materials reporting requirements. Completed numerous regulatory reviews to determine whether Intel's existing processes and systems require permitting through the BAAQMD. Supported renewal of Intel's existing BAAQMD air permit by analyzing the site's annual chemical usage. Prepared an Authority to Construct and Permit to Operate Application for the installation of several new emission sources. Researched Assembly Bill 617 requirements for relevance to Intel, including determination of Intel's prioritization score through a health risk screening analysis. Worked closely with Intel personnel to understand site nuances and environmental compliance needs.

Compliance Assistance, Vernon, California, 2008 – present

**Client:** Vernon Public Utilities (VPU)

**Title:** Project Manager

Collected site data and prepared GHG emissions inventories for VPU, including emissions from fleet vehicles, city offices and buildings, the power plant, and transmission lines. Performed emissions calculations according to the California Climate Action Registry (CCAR), The Climate Registry (TCR), California Air Resources Board (ARB), and U.S. Environmental Protection Agency (EPA) protocols. Established and supported maintenance of a compliance calendar, which captures VPU's air quality, industrial wastewater and storm water, hazardous materials, and GHG reporting requirements. Coordinated preparation and submittal of various compliance reports, including Quarterly Certification of Emissions Reports and Annual Permit Emissions Program Reports for the South Coast Air Quality Management District (SCAQMD). Prepared a Title V Permit Renewal Application for VPU, which was submitted to the SCAQMD and successfully resulted in issuance of a new Title V Permit. Researched developments to the ARB's Cap-and-Trade Program for relevance to VPU and provided assistance in preparing for the first allowance auction. Researched the SCAQMD's plans to sunset the Regional Clean Air Incentives Market (RECLAIM) Program, and communicated how the regulations replacing the RECLAIM Program may affect VPU's operations. Received written, positive feedback from VPU regarding successful management of and commitment to quality for the Compliance Assistance Project.

## Air Issues and Regulations (AIR) Committee, Oakland, California, 2013 – 2017

**Client:** Bay Area Clean Water Agencies (BACWA)**Title:** Project Manager

Managed regulatory services to BACWA's AIR Committee, which includes agencies that own and operate publicly-owned treatment works (POTWs) in the San Francisco Bay Area. Conducted bi-monthly meetings to inform agencies of local, state, and federal air quality and climate change regulations impacting their operations. Advocated on behalf of the AIR Committee to the ARB, BAAQMD, and other regulatory agencies, including preparation of comment letters addressing agency concerns with proposed regulatory changes.

## Application for Certification (AFC) Preparation, California, 2012 – present

**Client:** AES**Title:** Task Lead

Estimated short- and long-term emissions associated with repowering a natural gas-fired power plant using CalEEMod methodology and emission factors from EMFAC. Drafted and revised the Air Quality and Public Health sections of the AFC and the accompanying appendices, including evaluations of applicable federal, state, and local air and GHG regulations. Interfaced with client and regulatory agencies during this effort to resolve disagreements surrounding appropriate mitigation, potentially significant impacts, methodology, etc. Led team members to complete tasks for multiple sites simultaneously with very truncated delivery schedules. As part of the CEC licensing process, participated in evidentiary hearings as an air quality and public health technical expert.

## GHG Emissions Inventory, nationwide, 2008 – 2011

**Client:** Confidential**Title:** Task Lead

Prepared GHG emissions inventories for California-operated petroleum refineries of a major petroleum industry client. Performed emission calculations according to the CCAR and ARB protocols. Provided verification assistance for one facility, which included a site visit and communication with a third-party verifier. Prepared a template by which each refinery belonging to this nationwide company could estimate and report GHG emissions according to the EPA's Mandatory Reporting Regulation, documented in 40 Code of Federal Regulations Part 98. Hosted two training sessions, guiding refinery personnel through the process of entering emissions data electronically for EPA reporting.

## David Rasmussen | SENIOR BIOLOGIST

### Profile

David excels as an experienced biologist, project manager, and consultant SME who applies his expertise as a Regulatory Specialist to serve a variety of environmental projects. Interacting with numerous regulatory agencies, he prepares effective CDFW Streambed Alteration Agreements and Incidental Take Permits, USFWS and NMFS Biological Assessments and Letters of Concurrence, HCPs, USACE Section 404 Nationwide Permits and Individual Permits, RWQCB Board Section 401 Certifications, and BCDC Permits.

<b>Education   Qualifications</b>	MS, with Distinction, Biological Sciences, Marine and Freshwater Fisheries, California Polytechnic State University BS, Ecology and Systematic Biology, Environmental Studies Minor and Biotechnology Minor, California Polytechnic State University
<b>Areas of Expertise</b>	<ul style="list-style-type: none"> <li>• Resource Agency Permitting and Development of Permitting Strategy</li> <li>• Fisheries, Estuarine, and Marine Biology</li> <li>• Habitat Assessments and Focused Surveys for Special-Status Species</li> </ul>

### RELEVANT PROJECT EXPERIENCE

Oakland J- East Shore 115 kV Reconductoring Project, Oakland, CA, March 2016 – present

**Client:** PG&E

**Title:** Project Manager and Lead Biologist

Managing project and serving as lead biologist for project involving reconductoring, re-routing lines, and providing structural upgrades for a 115-kV transmission line running along the San Francisco Bay shoreline. Coordinated field surveys and prepared a draft PEA and NOC. All documents required for a PEA and a NOC being prepared concurrently to speed project permitting timeframe.

Bay Towers Program, San Francisco Bay Area, CA, June 2018 – present

**Client:** PG&E

**Title:** Project Manager and Lead Biologist

Assessing various power line and transmission line structures and performing subsequent permitting for maintenance on or to replace those structures. Leading biological field surveys and working directly with engineering and construction management teams to design work areas to minimize environmental impacts, and this work will transition into project, including preparation of CEQA and potentially NEPA documents, depending on the project impacts.

San Mateo Wastewater Treatment Plant Upgrade, San Mateo, CA, April 2018 – May 2019

**Client:** San Mateo County

**Title:** Lead Fisheries Biologist

Mr. Rasmussen was the lead fisheries biologist and author for the Biological Assessment for aquatic species for the upgrade and expansion of the San Mateo Wastewater Treatment Plant, and supported documentation regarding an extension of the State Lands Commission lease for an outfall pipeline and diffuser. Prepared Biological Assessments for species under the jurisdiction of USFWS and NOAA Fisheries. Mr. Rasmussen also met with regulators from the RWQCB and NOAA Fisheries to discuss the project and to speed the permit approval process.

Embarcadero-Potrero 230 kV Transmission Project, San Francisco Bay Area, CA, January 2014 – June 2018

**Client:** PG&E

**Title:** Lead Biologist

Produced a biological constraints analysis and biological section of the PEA and IS/MND. Also, prepared relevant resource agency permits, including USACE Nationwide Permits involving coordination with the Dredged Material Management Office; and prepared biological assessments for NMFS and NOAA under the Marine Mammal Protection Act; and California State Lands Commission Lease. Met with resource agencies to discuss permit applications and speed their approvals.

Confidential Offshore Windfarm, Long Island Sound, June 2017 – March 2019

**Client:** Confidential

**Title:** Lead Fisheries and Benthic Resources Author

Mr. Rasmussen was the lead author for the Fisheries, Essential Fish Habitat, and Benthic Resources chapters of a Construction and Operations Plan for a proposed offshore wind farm located on the East Coast of the United States. Work included conducting literature reviews, research on species that may occur in the project area, determining potential impacts associated with the project including impacts to marine habitats, sound propagation, behavioral shifts, expected restoration timeframes post impact, and development of appropriate mitigation measures.

Three Creeks Bridge Project, Los Gatos Creek Trail Project, and San Tomas Aquino Trail Project, San Jose, CA, May 2019 – present

**Client:** City of San Jose

**Title:** Lead Biologist

Led permitting efforts with USACE, RWQCB, CDFW, USFWS, and NMFS for trail creation projects within the City of San Jose. For the Three Creeks Bridge project, this also included fish relocation and salvage efforts, and leading biological compliance work. The Los Gatos Creek Trail Project and San Tomas Aquino Trail Project are currently in the permitting phase, and following permitting, Mr. Rasmussen will lead biological compliance activities.

PSEP Program, Vacaville, San Luis Obispo, and Arcata, CA, May 2011 – November 2019

**Client:** PG&E

**Title:** Lead Biologist, Consultant Subject Matter Expert, and Regulatory Specialist

Designated as lead biologist and consultant subject matter expert for a majority of the PG&E hydrostatic test segments west of Vacaville, north of San Luis Obispo, and south of Arcata. Performed approximately 75-90 hydrotesting miles per year. Managed scheduling and coordination of biological monitors for hydrotest program and confirmed projects complied with resource agency permits and appropriate AMMs implementation. This also included obtaining Coastal Development Permits for three projects in the Arcata area, and navigating the intricacies of how local jurisdictions implement the Coastal Act in Santa Cruz and San Luis Obispo Counties. As lead biologist, conducted biological assessments, focused surveys, and pre-construction surveys for each test segment, as well as managing and coordinating with other biologists and sub-consultants.

North San Joaquin Power Connect, Stockton and Lodi, CA, April 2016 – present

**Client:** PG&E

**Title:** Lead Biologist

Constructed a new double circuit 230 kV transmission line between Stockton and Lodi. Project currently in siting stage. Working to refine potential corridors and to identify constraints and opportunities for siting of the new line. Role to transition into overseeing staff preparing the Biological Resources section of the PEA.

Confidential Offshore Intake and Outflow Removal Project, California, June 2018 – November 2018

**Client:** Confidential

**Title:** Lead Marine Biologist

Led the review and response for marine and terrestrial biology impacts for an IS/MND that was prepared by a third party for the dismantling and removal of several offshore intake and outflow structures associated with a nuclear power plant. Worked closely with the client's biologists and legal team to prepare scientifically rigorous technical memorandums to dispute multiple measures in an IS/MND. The technical memorandums presented alternative measures that would better protect species, be easier to implement and enforce, and remove several major construction constraints including extending seasonal work windows.

Lagunitas Creek Bridge Replacement, Marin County, CA, November 2018 – March 2020

**Client:** Caltrans

**Title:** Aquatic Biologist and Permitting Specialist

Leading permitting for aquatic species impacts associated with the removal and replacement of the Lagunitas Creek Bridge Replacement. Conducted habitat assessment surveys for aquatic species including marine Mammals. Currently supporting document preparation for a Coastal Development Permit and obtaining a State Lands Commission lease for the new bridge.

California Wave Energy Test Center (CalWave), Vandenberg Air Force Base, CA, November 2014 – November 2015

**Client:** California Polytechnic State University

**Title:** Lead Consultant Marine Biologist

Worked as lead consultant marine biologist for the CalWave project which was proposed for the areas off Vandenberg Air Force Base. This project involved developing a proposal and plan for several offshore sites to serve as a West Coast test center for several wave and offshore wind energy technologies. Provided support in identifying potential special-status species and other constraints that may be present in the action area of the project, including permitting constraints. These data were used to inform the principal investigators about the constraints of the project, develop planned survey needs and appropriate timing for surveys, and to prepare the Fish and Aquatic Resources section of the Preliminary Application Document to the Department of Energy.

## Scott Lindemann | ENVIRONMENTAL COMPLIANCE/CONSTRUCTION

### Profile

Scott is a well-rounded wildlife biologist with a Master of Wildlife Conservation degree and over five years of professional biological consulting experience. He has experience providing biological consulting and permitting support for roadway maintenance and repair projects as well as major linear gas and electrical transmission projects.

Over his career, Scott has cultivated an in-depth knowledge of the flora and fauna of California and has consistently produced scientific reports and permitting deliverables on schedule and within budget. He led 18 protocol-level surveys for Swainson's hawk (SWHA); assisted in pit-trapping and live relocation of California tiger salamander (CTS) and Santa Cruz long-toed salamander (SCLTS); and assisted in protocol-level surveys for California red-legged frog (CRLF), foothill yellow-legged frog (FYLF), burrowing owl (BUOW), and San Joaquin kit fox (SJKF). Scott has ensured permit compliance on over 40 project sites and monitored construction of a wetland mitigation site. Monitored in sites with high potential for CRLF, CTS, Western pond turtle (WPT), California Ridgway's rail (RIRA), California black rail (CBR), and salt-marsh harvest mouse (SMHM).

Scott's professional skillset includes permitting, field data collection and habitat assessments, field team leadership, project management, scientific and popular writing, data analysis, GIS software, and public speaking. He has published six scholarly journal articles based on his master's degree work in Maine. Scott has also written a wide variety of permit applications and status reports for California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Boards (RWQCB), United States Army Corps of Engineers (USACE), United States Fish and Wildlife Service (USFWS), and California Coastal Commission (CCC).

### Education | Qualifications

MWC, Master of Wildlife Conservation, University of Maine  
BA, Environmental Studies, University of Southern California

### RELEVANT PROJECT EXPERIENCE

Gas Transmission Environmental Support, Northern California, March 2019 – present

**Client:** Confidential

**Title:** Biologist

Conducted project site visits, habitat assessments, and pre-activity nesting bird surveys. Ensured permit compliance during construction monitoring in a variety of sensitive habitat types. Monitored for California red-legged frog (CRLF), California tiger salamander (CTS), California Ridgway's rail (RIRA), California black rail (BLRA), Western snowy plover (WSP), and salt-marsh harvest mouse (SMHM). Coordinated activities of biologists and provided preliminary senior review on reports.

Produced Environmental Constraints Reviews (ECR) (70+ reports) for Bay Area and Central Coast regions of a linear vegetation management program. Determined relevant permit requirements for ECR reports.

Key roles include database management, electronic fieldwork form development for mobile devices, conducting biological surveys, performing permit compliance during construction, writing biological reports, field GPS technology implementation, GIS support, and training.

Biological Field and Construction Monitoring, Contra Costa County, CA, April – June 2017

**Client:** Confidential

**Title:** Senior Biological Monitor

Conducted senior biological monitoring duties on several major construction projects. Captured and relocated multiple taxa of vertebrate animals, conducted nesting bird surveys. Monitored the construction of a wetland for environmental mitigation. Enforced permit requirements and responded to crisis situations to ensure permit compliance. Supported various projects through permit compliance, staff training, and monitoring.

Caltrans On-Call Environmental Studies, Marin, Napa, Solano, and Sonoma Counties, CA, March 2019 – present

**Client:** Caltrans

**Title:** Biologist

Conducted project site visits and habitat assessments, wrote biological reports, and assisted in aquatic resource delineations (i.e., wetland delineations). Led 18 protocol-level surveys for Swainson's hawk (SWHA). Ensured permit compliance during construction monitoring in a variety of sensitive habitat types. Monitored for California red-legged frog (CRLF), California tiger salamander (CTS), and Western pond turtle (WPT). Met regularly with the client to provide project status updates and provide deliverables.

Gas Transmission Environmental Support, Monterey and Humboldt Counties, CA, June 2016 – February 2017

**Client:** Confidential

**Title:** Associate Land Planner, Permitting, and Project Coordinator

Made preliminary determinations of California Coastal Zone Coastal Development Permit jurisdiction and requirements. Wrote California Department of Fish and Wildlife Lake and Streambed Alteration Agreement permit applications. Determined relevant permit requirements for Environmental Constraint Review reports.

Summit Wind Farm, Livermore, CA, January 2020 – present

**Client:** Salka Energy

**Title:** Biologist

Independently live-relocated two California tiger salamander (CTS) juveniles and assisted in relocating 2 CTS juveniles away from the project area during construction monitoring activities. Modified erosion control devices to allow for passage of California tiger salamander (CTS), assisted in the live relocation of 3 CTS away from the project area. Conducted surveys for burrowing owl (BUOW) and San Joaquin kit fox (SJKF).

## Jeremy Hollins | SENIOR CULTURAL RESOURCES SPECIALIST

### Profile

Jeremy excels as a qualified Architectural Historian, Historian, and Western United States Talent Supervisor for our Cultural Resources group. An experienced project manager executing and managing over 100 projects and tasks throughout the West coast, primarily in California, he's performed numerous historic evaluations, context studies, and determinations of eligibility and effect for a range of resources based on local, state, and National Register criteria. Guiding and delivering technical reports, DPR 523 series forms, Historic American Building Survey/HAER/Historic American Landscape Surveys, cultural landscape reports, historic structures reports, and resolution documents that adhere to California and federal environmental regulations, Jeremy brings a detailed knowledge of historic property compliance. He's skilled in managing large-scale, complex, and controversial cultural resources projects, such as the SCE West of Devers and the Altamont Wind Repower projects. Both projects have required require extensive agency and tribal coordination to streamline permitting and construction monitoring. Jeremy also builds agency relationships and consensus for resolution – smoothly collaborating with staff and regulators to avoid impacts, apply standards, achieve approval, supervise and review quality deliverables, conduct tribal consultation and stakeholder outreach, and develop client-focused creative solutions that simultaneously meet historic regulations and your goals.

<b>Education   Qualifications</b>	M.A. Public History, University of San Diego B.A. History (Environmental), University of Rhode Island
<b>Registrations   Certifications</b>	Secretary of the Interior Qualified Architectural Historian and Historian
<b>Memberships   Affiliations</b>	California Preservation Foundation

### RELEVANT PROJECT EXPERIENCE

West of Devers Transmission Line Upgrade, Riverside and San Bernardino Counties, CA

**Client:** Southern California Edison (SCE)

**Title:** Cultural Resources Lead

Leading cultural resources management for project construction activities for a large-scale transmission line upgrade project. Monitoring coordination, interfacing with SCE and lead federal and state agencies, overseeing implementation of project Cultural Resources Management Plan, Section 106 consultation following discoveries, oversight of Archaeological Resources Protection Act (ARPA) permit with Bureau of Indian Affairs and Bureau of Land Management (BLM) fieldwork authorization, and cultural resources assessments for minor project realignments. Working closely with subcontractors and tribal monitors to implement measures to speed recordation and treatment of discovered resources. Provided overall value to the project through development of specific project mitigation measures and protocols to facilitate required coordination with SHPO, local tribes, and BLM that avoid slowing construction.

Summit Wind Repower Project, Altamont, CA

**Client:** Salka Energy

**Title:** Cultural Resources Lead

Leading cultural resources construction activities for a \$1.2M large-scale windfarm. Responsible for monitor coordination and oversight, development of Workers Environmental Awareness Program, interfacing with US Army Corps of Engineers (USACE) and tribal monitors, negotiating Area of Potential Effects (APE) changes, providing guidance to project owners, and developing and implementing project Memorandum of Agreement (MOA). Developed cost-savings for project proponent through identification of measures to streamline monitoring efforts and collaborate closely with agencies and tribal monitors. Provided project value to client through trouble-shooting

tribal issues and getting APE changes approved without slowing project construction through providing detailed information and robust assessment of effects.

### Sky River Repower Project, Kern County, CA

**Client:** NextEra

**Title:** Cultural Resources Lead

Cultural Resources Lead for overseeing completing CEQA and Section 106 consultation for a large-scale windfarm in Kern County. Responsible for subcontractor oversight, interfacing with BLM and Kern County, completing supplemental surveys, and project reporting. Provided value to client through receiving agency approval for reduced mitigation commitments during construction and development of report that avoided and minimized impacts to known resources. Met aggressive project schedule to support planned start of construction.

### Ameresco Energy Improvements at Fort Irwin, San Bernardino County, CA

**Client:** Ameresco and Fort Irwin

**Title:** Cultural Resources Lead

Managed project tasks for archaeological and architecture survey of an 11-mile pipeline at Fort Irwin. Completed records search, developed survey methodology, oversaw survey, coordinated with base archaeologist, and oversaw preparation of technical reports, including eligibility determinations and effects analysis in compliance with Section 106. Streamlined reporting for SHPO and Fort Irwin, saving over 45 days from project schedule, reducing significant time savings.

### Roundhouse Windfarm Permit Applications and Native American Consultation, Laramie County, WY

**Client:** NextEra

**Title:** Senior Cultural Resources Specialist

Led architectural history studies for the NextEra Roundhouse Windfarm, which included a large-scale turbine array and a multi-state transmission line corridor. Completed field work, oversaw development of historic contexts, completed historic research, co-authored technical report, and interfaced with SHPO office. Also led tribal outreach efforts with over 7 different tribes, including tours of the project area, data requests/responses, and consultation meetings. Brought value to the project through successfully building tribal consensus on a controversial project for the project development and reduced mitigation commitments, avoiding adverse effects and lengthy project consultation.

### MOX E-Tag Project Cultural Constraints Summary and Cultural Resources Constraints Report, Oakland, CA

**Client:** Pacific Gas and Electric

**Title:** Senior Cultural Resources Specialist

Completed technical reviews of the CCS and CRCR reports for the project, and also completed a historical evaluation of the NRHP-eligible Sibley Volcanic Regional Preserve, Redwood Regional Park Historic District, and Moraga-Oakland X Power. Also, assessed project's impacts to the historic district.

### Eldorado-Lugo-Mohave Capacitator Project, San Bernardino County, CA

**Client:** Southern California Edison

**Title:** Senior Cultural Resources Specialist

Cultural Resources Lead for project construction activities for a large-scale transmission line upgrade in San Bernardino Counties. Responsible for monitor coordination, interfacing with SCE and lead federal and state agencies, implementation of project Cultural Resources Management Plan, Section 106 consultation following discoveries, oversight of ARPA and BLM permit, and cultural resources assessments for minor project realignments.

Eldorado-Mohave-Blythe Capacitor Project, Riverside and San Bernardino Counties, CA

**Client:** Southern California Edison

**Title:** Senior Cultural Resources Specialist

Cultural Resources Lead for project construction activities for a large-scale transmission line upgrade in San Bernardino Counties. Responsible for monitor coordination, interfacing with SCE and lead federal and state agencies, implementation of project Cultural Resources Management Plan, Section 106 consultation following discoveries, oversight of ARPA and BLM permit, and cultural resources assessments for minor project realignments.

## Jordan Grace | ENVIRONMENTAL PLANNER

### Profile

Environmental Planner with 5 years of experience is available to support permitting efforts for operations and maintenance, and new development, of energy and infrastructure projects.

<b>Education   Qualifications</b>	B. S. Environmental Science and PPPM (Planning, Public Policy, and Management), University of Oregon, 2014
<b>Registrations   Certifications</b>	Certified Erosion and Sediment Control Lead (CESCL), WA
<b>Areas of Expertise</b>	Experience preparing state and local permitting applications for utility projects in California, Oregon, Washington, and Wyoming. Utility projects include: water supply pipelines, electrical transmission lines, solar energy facilities, and wind energy facilities.

### RELEVANT PROJECT EXPERIENCE

Hayden Mountain Project, Klamath Falls, Oregon, December 2019 – present

**Client:** EcoPlexus, Inc.

**Title:** Permit Writer

Lead local permitting efforts for construction of a XX MW solar energy facility with XX MW of battery storage. Prepared and wrote a Conditional Use Permit application and coordinated generation of supporting documents (Figures, etc.)

Klondike II Wind Energy Repower Project, Sherman, Oregon, September 2019 – present

**Client:** Avangrid Renewables

**Title:** Permit Writer

Lead local permitting efforts for repowering an existing 50-turbine wind energy generation facility from 75 MW to 81 MW. Assisted project manager with writing the narrative for a Conditional Use Permit Amendment application, in addition to compiling application attachments (Figures, FAA Determinations, Landowner Leases, etc.)

Cedar Springs III Wind Energy Project, Converse County, Wyoming, March 2019 – May 2019

**Client:** NextEra Energy Resources

**Title:** Permit Writer

Lead state and local permitting efforts for construction of a 48-turbine wind energy generation facility. Assisted project manager with writing the narrative for a Wind Energy Conversion System Use Permit application, in addition to compiling application attachments (i.e. Emergency Management Plan, Waste Management Plan, Landowner Information, etc.)

Madras Solar Energy Facility, Jefferson County, Oregon, March 2019 – September 2019

**Client:** Ecoplexus

**Title:** Permit Writer

Write and submit a Notice of Intent to the Oregon Department of Energy for construction of a new solar energy generation facility with battery storage. Wrote the Notice of Intent, researched Jefferson County public services, and coordinated compilation of application materials.

Marys River Water Pipeline Crossing Project, Corvallis, Oregon, September 2018 – April 2019

**Client:** City of Corvallis Public Works Department

**Title:** Permit Writer

Lead permitting (Floodplain Permit, and Site Grading & Erosion Control Permit), and engineering design for construction of two new re-aligned water pipelines crossings. Wrote, compiled, and submitted the Floodplain Permit application.

Georgia-Pacific Transmission Line and Structure Maintenance Permitting, Troutdale, Oregon, June 2018 – August 2020

**Client:** Georgia-Pacific

**Title:** Permit Writer

Lead permitting for repair and maintenance of two existing electrical transmission lines and structures. Wrote, compiled, and submitted the Land-Use, Building, and Section 408 Development Review Permit applications.

Beaver Creek Water Supply Project, Seal Rock, Oregon, February 2018 – July 2020

**Client:** Seal Rock Water District

**Title:** Permit Writer

Lead permitting and engineering design for construction of a new water supply system and water treatment plant. Wrote and compiled the Conditional Use Permit, Floodplain Permit, and County Utility Permit applications.

## Steve Long | PROFESSIONAL WETLAND SCIENTIST/PM

### Profile

Steve has more than 30 years of professional experience executing and managing a wide range of natural resource and environmental evaluation projects. He has strong skills in plant identification, soil characterization, ecological risk assessment, hydrogeology, and environmental chemistry, as well as extensive experience in environmental documentation, construction monitoring, and permitting.

Steve has worked as a biologist/environmental scientist for numerous federal, state, and private industrial clients. Federal clients include NASA, Air Force, Navy, and USEPA. California state government clients include Caltrans and Department of Water Resources. Private industrial clients include the Pacific, Gas and Electric Company and Union Pacific Railroad. Primary responsibilities included work planning, field data collection and analysis, reporting, and permitting. He has also helped complete permits for more than 30 power plants for several different energy firms.

Prior to coming to California, Steve worked between 1989 and 1995 for similar client groups in the Northeastern U.S. (CT, NH, ME, MA, and NY). Steve also worked between 1981 and 1986 as a forester in French-speaking West Africa.

<b>Education   Qualifications</b>	M. S. Soil Physics, Texas A&M University, 1989 B. S. Forestry, University of New Hampshire, 1980
<b>Registrations   Certifications</b>	Professional Wetland Scientist (PWS No. 2308) Society of Wetland Scientists Registered Environmental Property Assessor (REPA No. 753125), National Registry of Environmental Professionals Certified Natural Resource Professional (CNRP No. 4839012648171009), National Registry of Environmental Professionals
<b>Memberships   Affiliations</b>	Agronomy Society of America, Soil Science Society of America Association of State Wetland Managers
<b>Awards and Honors</b>	Phi Beta Delta, Honor Society of International Scholars, April 1988 Gamma Sigma Delta, Honor Society for Agriculture, 1989
<b>Languages</b>	French, 3.5/5 F.S.I. Hausa, 1.5/5 F.S.I.
<b>Areas of Expertise</b>	<ul style="list-style-type: none"> <li>▪ Extensive experience in delineating wetlands and waters in California, Nevada, Washington, Connecticut, New Hampshire, Maine, Massachusetts and New York. Prepared permit packages for projects in California, Washington, Connecticut and New Hampshire.</li> <li>▪ Skilled in plant identification, soil characterization and classification, and vegetation and habitat mapping.</li> <li>▪ Experienced in preparing complex environmental documents for large projects including Programmatic Biological Assessments; Environmental Impact Reports, Remedial Investigations, Ecological Risk Assessments, and Applications for Certification.</li> <li>▪ Excellent writing and presentation skills.</li> </ul>

### RELEVANT PROJECT EXPERIENCE

Beale Air Force Base, Yuba County, California, March 2004 – present

**Client:** Air Force Center for Environmental Engineering

**Title:** Environmental Scientist and Lead Biologist

Ongoing environmental investigations of various Installation Remediation Program (IRP) sites on the Base. Since June 2011, these site investigations have been conducted under a fence-to-fence Performance Based Remediation contract and the current (second) contract is expected to complete in 2020. Value of the PBR contracts has been in tens of millions of dollars in consulting fees since 2011.

Initial involvement in work at Beale AFB was as environmental scientist investigating soil and groundwater contamination at different IRP sites. Between 2004 and 2010, managed triad investigation of groundwater contamination from two unknown spill sources and prepared the remedial investigation report for the Cantonment Area portion of the base that encompassed several individual IRP sites in a geologically complex area at the transition from the Sierra foothills to the Central Valley basin. Also prepared work plan for Long-Term Operation and Maintenance Program and managed six biovent remediation systems that focused on fuel product clean up. Oversaw completion of in situ respiration testing and semi-annual efficiency reporting for the biovent systems. Field data collection included Gore-sorber™ surveys, active soil gas sampling, and traditional hollow-stem auger drilling, sampling and well installations. Since 2011, have been primarily responsible for Endangered Species Act compliance for ongoing investigations and remediation projects. Between October and December 2011, completed a wetland delineation for approximately 750 acres encompassing 15 IRP sites with widespread vernal pool habitats. Ongoing review of on-site conditions and dig permits for all proposed off-pavement activities.

Humboldt Bay Replacement Project, Humboldt County, California, May 2006 – April 2007

**Client:** PG&E

**Title:** Environmental and Soil Scientist

Provided senior review for this Soil AFC chapter. Prepared a Phase II ESA cost proposal and work plan, then executed the Phase II ESA using staff from a minority owned 'mentor-protégé' firm. Coordinated the field sampling activities and prepared the report. Met with client and regulator from the North Coast Regional Water Quality Board and secured approval for final recommended site investigation tasks to complete the Phase II ESA.

Corrective Action Plan for POL Hill AST-2 Area, Hamilton Army Air Field, Marin County, California, August 2003 – February 2004

**Client:** U.S. Army Corps of Engineers

**Title:** Environmental Scientist

Under the Base Realignment and Closure (BRAC) program, prepared a Corrective Action Plan for protection of surface and ground water resources associated with soil contamination at the POL Hill Above-Ground Storage Tank (AST)-2 Area. This Corrective Action Plan was submitted to the San Francisco Bay Regional Water Quality Control Board.

Potrero Hills Property (formerly Annex 6 of Travis AFB), Solano County, California, February – November 2000

**Client:** Air Force Center for Environmental Excellence

**Title:** Environmental Scientist

Environmental services in support of a property transfer document and an ecological risk assessment for a former 25-acre Nike missile site near the southern boundary of Travis AFB. The site was being leased by OEA Aerospace for developing explosive safety devices for the Air Force and automotive industries.

Planned and executed a field sampling program to collect soils, sediments and surface water samples in support of an Environmental Baseline Survey (EBS), the property transfer document used by the Air Force. Wrote the EBS and provided support on the preparation of the Ecological Risk Assessment (EcoRA). The sampling was carried out in conjunction with the current site lessor's (OEA Aerospace, Inc.) consultant, Camp Dresser and McKee.

## Matt Franck | PROJECT MANAGER

### Profile

Environmental planner with 30 years of experience managing and writing environmental impact assessment documents that comply compliance with NEPA and CEQA.

#### Education | Qualifications

B.S., Environmental Policy Analysis and Planning, UC Davis

#### Areas of Expertise

- Experienced in preparing environmental documents to fulfill California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), and other resource agency requirements
- Specialized experience in permitting and application leadership activities with various municipal, state, and federal entities
- Specialist in applying environmental regulations to water infrastructure and water resources projects
- Expertise in the comprehensive analysis of project impacts to surface water hydrology, groundwater, water supply, wastewater treatment, and drainage and stormwater quality

### RELEVANT PROJECT EXPERIENCE

Huntington Beach Energy Project, Huntington Beach, CA, June 2012 – July 2014

**Client:** AES Corp, Inc.

**Title:** Water Resources Task Manager

Prepared Water Resources analysis for a project to repower the existing Huntington Beach Generating Station in Huntington Beach, CA. A key feature of the repowering project was to remove the existing plant from using once-through ocean cooling. The project involved study of potential recycled water availability from the nearby wastewater treatment plant, requiring study of various pipeline alignments and advanced treatment options ultimately resulting in a determination that using recycled water for this project was environmentally undesirable and economically unsound. Issues of concern also included changes in ocean discharges and site redevelopment to incorporate advanced stormwater pollution controls.

Carlsbad Energy Center Project, Carlsbad, CA, September 2007 – May 2012

**Client:** NRG, Inc.

**Title:** Water Resources Task Manager

Prepared Water Resources analysis for a project to repower the existing Encina Power Station in Carlsbad, CA, using natural gas turbines. The project involved the use of reclaimed water from the nearby wastewater treatment plant, with an alternative source to use desalinated seawater. Key issues included marine impacts from seawater intake, brine disposal, and the capacity of the existing reclaimed water distribution system.

Eastshore Energy Project, Hayward, CA, September 2006 – June 2008

**Client:** Tierra Energy, Inc.

**Title:** Water Resources Task Manager

Prepared Water Resources analysis for a new natural gas power plant in Hayward, CA, using 14 reciprocating engine generators. Key water resources issues of concern included the development of structural features for onsite stormwater quality control, and process wastewater discharges to a municipal system.

Humboldt Bay Repowering Project, Eureka, CA, September 2006 – September 2008

**Client:** Pacific Gas and Electric, Company

**Title:** Water Resources Task Manager

Prepared Water Resources analysis for a project to repower the existing Humboldt Bay Power Plant south of Eureka, CA, using ten natural gas powered reciprocating engine generators. Key water resources issues of concern included stormwater quality to an extended detention basin, process wastewater discharges to a municipal system, and the decrease in lagoon flows because of reduced use of the existing once-through cooling system.

Modesto Irrigation District Electric Generation Station, Ripon, CA, April 2003 – February 2004

**Client:** Modesto Irrigation District

**Title:** Task Manager

Task Manager for the preparation of the Water Resources section of this Small Power Plant Exemption, a California Energy Commission process that is functionally equivalent to CEQA. The CEQA-equivalent evaluation focused on water, wastewater, and stormwater generation and was used by the proposed facility in compliance with the federal Clean Water Act and state Porter-Cologne Water Quality Control Act.

## Sam Schoevaars | ENVIRONMENTAL PLANNER

### Profile

Sam is an environmental professional with seven years of technical and planning experience on water resources management, tribal environmental and gaming services, utility, and transportation planning, permitting, and construction projects. Sam is proficient at conducting research and fieldwork, collecting data, organizing and summarizing technical material, and contributing to the preparation and delivery of environmental documents in compliance with federal, state, and local laws and regulations.

<b>Education   Qualifications</b>	Bachelor of Science, Environmental Science and Management – Watershed Science, University of California, Davis, 2013
<b>Registrations   Certifications</b>	Disaster Service Worker, California Governor’s Office of Emergency Services, 2018 – present Wilderness First Responder, National Outdoor Leadership School Wilderness Medicine, 2015 – present Introduction to Incident Command System, Federal Emergency Management Agency Emergency Management Institute, 2018 Basic Wetland Delineation, Wetland Training Institute, Inc., 2017
<b>Memberships   Affiliations</b>	Volunteer, California Explorer Search and Rescue, 2017 – present
<b>Areas of Expertise</b>	<ul style="list-style-type: none"> <li>▪ Hydrology and Water Quality</li> <li>▪ Geology and Soils</li> <li>▪ Hazardous Materials</li> <li>▪ Biological Resources</li> </ul>

### RELEVANT PROJECT EXPERIENCE

Various Projects in San Francisco, San Mateo, Marin, Sonoma, and Napa Counties, California, April 2019 – present

**Client:** California Department of Transportation District 4

**Title:** Environmental Planner

Provides planning, permitting, and other services support on a variety of mobility, collision reduction, emergency response, mandate, and roadway, bridge, and roadside preservation projects during project approval and environmental documentation and plans, specifications, and estimates processes.

Supporting project managers and task managers in all stages of research and preparation of NEPA/CEQA deliverables. Serving as a resource and task leader for the execution, writing, and technical delivery of key tasks. Coordinating tasks and deliverables with multiple technical leads, stakeholders, and colleagues. Bringing a positive attitude to work every day. Meeting with stakeholders and teammates to develop relationships and a greater understanding of the team as a whole. Displaying consistently good performance on routine tasks. Competently and effectively applying fundamental concepts, practices, and procedures with close supervision. Working efficiently within scope and budget on projects. Identifying any existing scope and budget issues to appropriate project managers and task managers. Preparing accurate and well-organized technical materials for multiple projects simultaneously on schedule and within budget. Providing new information on scheduling, resource concerns, meeting updates, and status of deliverables. Understanding linear construction methods, planning, and permitting. Preparing permit applications. Preparing meeting materials and participating in public involvement processes. Maintaining electronic and hardcopy files for current and upcoming projects.

Confidential Project, Santa Clara County, California, June 2019 – present

**Client:** Confidential

**Title:** Environmental Planner

Provides planning, permitting, and other services support on a confidential project during California Energy Commission, City of San Jose, and Bay Area Air Quality Management District processes.

Supporting project managers and task managers in all stages of research and preparation of CEQA deliverables. Communicating effectively with multiple technical leads, stakeholders, and colleagues. Meeting and exceeding deliverables schedules and promptly responding to client requests. Meeting and exceeding the financial performance objectives set out for the project. Preparing permit applications and CEQA documents of sufficient quality and thoroughness. Moving projects through processes smoothly and quickly. Coordinating closely with clients and engineering design consultants. Listening carefully to instructions and responding appropriately. Reviewing and adhering to appropriate health and safety trainings and documents.

Coastal GasLink Pipeline Project, British Columbia, Canada, July 2020 – present

**Client:** TC Energy

**Title:** Logistics Coordinator

Provides logistics coordination for field crews conducting environmental field studies and monitoring services on a natural gas pipeline project from the Dawson Creek area to a facility near Kitimat, British Columbia.

Processing and tracking logistics requests. Contacting vendors and sub-contractors to reserve accommodations, airline flights, communication equipment rentals, vehicle rentals, and helicopter flights. Preparing itineraries containing all information pertaining to the shift (e.g., pilot, medic, and wildlife contact information and pick-up and drop-off locations) and sending confirmations to the field crews. Responding to logistics and/or equipment issues encountered by field crews. Coordinating basic maintenance on communication equipment rentals and vehicle rentals as required. Coordinating the movement of field personnel, communication equipment rentals, and vehicle rentals while in the field. Observing and ensuring field personnel, communication equipment rentals, and vehicle rentals are transported in a safe and efficient manner. Collaborating with the Logistics Lead to coordinate the sharing and efficient management of field operation resources. Coordinating the environmental field team schedules and seeking opportunities for streamlining and cost efficiencies.

## Mark Bastasch, P.E., INCE | PRINCIPAL ACOUSTICAL ENGINEER

### Profile

Mr. Bastasch has more than 20 years of experience conducting acoustical evaluations and working with multimedia environmental permitting and design teams. For over a decade, Mr. Bastasch has provided technical leadership on acoustical matters related to renewable energy facilities. He has been an invited speaker to organizations such as Harvard Law School’s Consensus Building Institute, the U.S. Department of Energy’s (USDOE) Wind Powering America, the International Energy Agency/USDOE National Renewable Energy Laboratory, National Wind Coordinating Council, Law Seminars International, Midwest Energy Bar Association, American Wind Energy Association, and USDOE’s New England Wind Energy Education Project; and he has served as plenary speaker or session chair at conferences in Australia, Japan, Italy, and England. Mr. Bastasch has acoustical permitting and design experience in the U.S. power and infrastructure sectors, and he has supported multiple design and engineer, procure, construct (EPC) efforts both domestically and internationally, each of which has fully complied with applicable regulatory limits. He served as lead acoustical consultant on Australia’s largest coal seam, gas-fueled, air-cooled, combined-cycle power plant and on Power Engineering’s Best Gas-fired Project for 2013 (the Empire Generating Project in Rensselaer, New York).

Mr. Bastasch’s work on wind energy has been cited by officials from Oregon to Maine. He provided acoustical expertise on the first major wind projects in Oregon, including the Stateline facility, which when permitted in the early 2000s was the largest wind project in the world. Mr. Bastasch was also acknowledged by the Oregon Health Authority for providing technical input to their “Strategic Health Impact Assessment on Oregon Wind Energy Developments.”

<b>Education   Qualifications</b>	M.S., Environmental Engineering, William Marsh Rice University, 1997 B.S. (cum laude), Environmental Engineering, Cal Poly, 1994
<b>Registrations   Certifications</b>	Professional Acoustical Engineer: Oregon (No. 58990AC) Professional Environmental Engineer: Oregon (No. 58990EN) Professional Civil Engineer: Oregon (No. 58990PE) Board Certified, Institute of Noise Control Engineering (INCE Bd. Cert.)
<b>Memberships   Affiliations</b>	Member, Institute of Noise Control Engineering (INCE) Member, Acoustical Society of America Organizer, INCE-E Wind Turbine Noise Conference Series
<b>Awards and Honors</b>	2010 CEO Excellence Team Award Winner 2016 CEO Excellence Career Achievement Award Nominee 2018 Joseph J. Jacobs Master Builder Award Project Team Member
<b>Areas of Expertise</b>	<ul style="list-style-type: none"> <li>• Specializes in industrial noise measurements, modeling, and control for power, industrial, and transportation clients.</li> <li>• Has prepared acoustical analyses or expert testimony for more than 15,000 megawatts (MW) from gas-fired power facilities and more than 5,000 MW from wind generation facilities.</li> <li>• Appointed by Oregon State Board of Examiners for Engineering and Land Surveyors to develop and grade the Professional Engineering (P.E.) exam in Acoustics. Oregon was the only state to issue a P.E. in acoustics.</li> <li>• Experienced in analyzing noise levels for no-build and build alternatives; supporting feasibility, design, and siting analyses of industrial, high-tech, and data center facilities; and preparing noise and vibration impact assessment reports.</li> </ul>

- Has served as an acoustical technical lead for numerous transportation projects in Alaska, California, Colorado, Oregon, Washington, and Idaho; tasks include monitoring, modeling, and mitigation recommendations in accordance with applicable state laws.
- Has conducted numerous noise studies in conjunction with National Environmental Policy Act (NEPA) documents and the energy facility siting requirements of various states.

## RELEVANT PROJECT EXPERIENCE

### Application for Certification, Alamitos Energy Center, California

**Client:** AES Southland Development LLC

**Title:** Lead Acoustical Engineer

Authored acoustical analysis for a 1,040-MW repower of the existing Alamitos Beach Generating Station located within the coastal zone of Long Beach, California. Tasks included ambient monitoring, acoustical modeling of operational and construction noise, regulatory evaluation, and participation in California Energy Commission (CEC) workshops. The CEC issued the final decision for the project in May 2017.

### Application for Certification, Huntington Beach Energy Project, California

**Client:** AES Southland Development LLC

**Title:** Lead Acoustical Engineer

Authored acoustical analysis for an 840-MW repower of the existing Huntington Beach Generating Station located within the coastal zone of Huntington Beach, California. Tasks included operational monitoring, acoustical modeling of operational and construction noise, regulatory evaluation and participation in CEC workshops. Mobilized team to provide expert testimony on potential impacts of sound levels on sensitive species. The CEC issued the final decision for the project in May 2017.

### Licensing and Permitting for San Francisco Electric Reliability Project (SFERP)

**Client:** San Francisco Public Utilities Commission

**Title:** Lead Acoustical Engineer

Led acoustical tasks to develop a 145-MW simple-cycle plant in southeast San Francisco using three LM 6000 turbines.

### Hermiston Power Project, Hermiston, Oregon

**Client:** Calpine Corporation

**Title:** Lead Acoustical Engineer

Conducted acoustical and vibration monitoring to determine if steam turbine generator, heat recovery steam generators, stacks, and combustion turbine generators complied with warranted levels within a time critical schedule. Prepared detailed environmental noise monitoring to demonstrate that the facility complied with permit conditions and minimized the time full load operation was needed during off-peak hours. Oregon Department of Energy accepted the report without comment.

### Walnut Energy Center, Turlock, California

**Client:** Turlock Irrigation District

**Title:** Lead Acoustical Engineer

Led acoustical tasks for a combined-cycle power plant, which included developing detailed noise model; comparing expected noise levels with the city of Turlock, County of Stanislaus, and the CEC's noise guidelines; preparing Application for Certification and subsequent amendments submitted to the CEC.

MEGS, Ripon, California

**Client:** Modesto Irrigation District

**Title:** Lead Acoustical Engineer

Led acoustics for a LM6000 (Norway package) power plant. Tasks included coordinating measurements of operating Norway Package with General Electric; developing detailed noise model; comparing expected noise levels with the City of Ripon, County of Stanislaus, and CEC noise guidelines; preparing Application for Certification and subsequent amendments submitted to the CEC; and review of Conditions of Certification, testimony at CEC evidentiary hearings.

Humboldt Bay Repowering Project, Humboldt, California

**Client:** PG&E

**Title:** Lead Acoustical Engineer

Prepared application for certification to the CEC. Facility is a load-following power plant consisting of 10 natural gas-fired Wärtsilä 18V50DF 16.3-MW reciprocating engine-generator sets and associated equipment with a combined nominal generating capacity of 163 MW. Developed and executed operational compliance monitoring strategy. Compliance assessment was accepted by the CEC without comment.

Embarcadero-Potrero 230 kV Transmission Project, San Francisco County, California

**Client:** PG&E

**Title:** Acoustic Lead

Acoustical technical lead for the development and filing of the Proponent's Environmental Assessment (PEA) for a new 3.5-mile 230-kV underground and submarine cable. This critical infrastructure project is designed to maintain power to San Francisco under a major seismic event scenario.

Water Storage Reservoir, Windsor, California

**Client:** Town of Windsor

**Title:** Acoustical Engineer

Prepared acoustical analysis of the construction and operation of the reservoir to support the supplemental environmental impact report for CEQA compliance. Also developed responses to comments received during the permitting process. Project involved comprehensive preliminary engineering and environmental services for a new water storage reservoir to provide seasonal storage needed by the Town's recycled water system.

Tehachapi Transmission Line, California

**Client:** Southern California Edison

**Title:** Acoustical Task Leader

Prepared acoustical analysis to support regulatory permitting requirements. This multimillion-dollar proponent's environmental assessment (PEA) included preparation of and support activities for a PEA submitted to the California Public Utilities Commission for an approximate 170-mile transmission line and substation project on federal, state, and private property.

## Maliheh Rostami | ENVIRONMENTAL PLANNING AND PERMITTING

### Profile

Ms. Rostami has more than 10 years of experience in Environmental and Permitting for Pipeline and Gas Expansion, Transmission line and Renewable projects. As an Environmental Planning Lead, she assisted in project management and leadership of the planner and field teams, managed costs and budgets, and coordinated the field studies and scheduling. In this role she also prepared and reviewed multiple environmental reports and plans. As a Permitting Lead her past responsibilities have included consulting with various government regulators to obtain environmental permits, preparing water withdrawal and geotechnical permits, and coordinating environmental field surveys. Maliheh also provides siting support for projects that require siting and routing analysis.

<b>Education   Qualifications</b>	Master of Environmental Studies, Dalhousie University, 2011 Bachelor of Landscape Horticultural Engineering, Tehran University, 2008
<b>Registrations   Certifications</b>	Certified Arborist Professional Agrologist (P.Ag.) Erosion and Sediment Control

### RELEVANT PROJECT EXPERIENCE

Environmental Permitting and Infrastructure CoP, Houston, May 2019 – December 2021

**Client:** Jacobs

**Title:** Deputy Lead

Hosts meetings relevant to midstream oil & gas, electric transmission lines, and renewable energy projects. Host and add content and enable discussions on the CoP MS Teams discussion boards, including regulatory or technical information to assist members in doing their jobs. Add content to the CoP SharePoint site, including cataloguing regulatory and technical information in the CoP SharePoint Library and sharing other useful links. Engage the global CoP membership to grow our business

Coastal GasLink Pipeline Project, British Columbia- Canada, March 2020 – present

**Client:** TC Energy

**Title:** Environmental Advisor support – secondment to TransCanada

Supporting the Environmental Advisors on all matters related to the construction of the Coastal GasLink Pipeline project duties include but not limited to: regulatory consultation, coordination and routine checks with Environmental Inspectors, compliance review, coordinating field surveys to satisfy regulatory pre-construction requirements, coordinating various contractors and subconsultants, technical review of reports and documents, reviewing and coordinating permit application and leave requests, and preparing compliance packages.

Transmission line projects, Indiana and Ohio, September 2019 – March 2020

**Client:** AEP

**Title:** Planner

Siting studies: route selection, site analysis, research, land use determination and preparation of regulatory reports.

North San Joaquin Power Project – CPUC, California, June – August 2019

**Client:** PG&E

**Title:** Planner

Siting Studies, land use determination, assisting in the preparation of the PEA.

Monte Verde Case Study, Chile, April – July 2019

**Client:** ENEL

**Title:** Environmental Planner

Conducting the agricultural assessment for the Mont Verde PV Plant. Assessing PV Plant failure, Alternative Analysis, Providing Solutions

Odfjell 2019 Pipeline Program, Texas, April – May 2019

**Client:** Odfjell

**Title:** Planner - Permitting

Completing biological desktop reviews. Permitting Assessment. Preparing permitting memo. Regulatory consultations. USACE Permitting.

Mt. Belviue Bridge Replacement Program, Texas, July – November 2018

**Client:** UPRR

**Title:** Environmental Planner

Completing biological desktop reviews. Developing Nation Wide Permit applications. Regulatory consultations. USACE/ USFWS Permitting

Trans Mountain Expansion Project, Canada, January 2015 – June 2016

**Client:** Kinder Morgan Canada

**Title:** Planner – Permitting Lead

Leading and assisting with the various technical reports. Managed field teams and biophysical disciplines. Prepared geotechnical and pipeline permitting applications. Consulted with regulatory bodies.

Trans Mountain Expansion Project, Canada, July 2015 – July 2018

**Client:** Kinder Morgan Canada

**Title:** Mitigation Management Lead

Prepared and created Environmental Alignment Sheets. Prepared and reviewed Environmental Protection Plans. Client interface for environmental mitigation. Reviewed soils report and incorporated details into protection plans and alignment sheets. Reviewing mitigation presented by environmental scientists where required. Coordination among various environmental disciplines where various environmental issues overlapped. Managed database of all environmental sensitive areas along the project and related mitigation.

Trans Mountain Expansion Project, Canada, January 2013 – July 2015

**Client:** Kinder Morgan Canada

**Title:** Routing Coordinator

Reviewing pipeline routing studies prepared by the engineering team. Identifying environmental sensitive areas and relaying them to the engineers.

## Loren Bloomberg | TRAFFIC ENGINEERING GLOBAL TECHNOLOGY LEADER

### Profile

Loren is a Principal Technologist, Senior Project Manager, and Jacobs' Global Technology Leader for Traffic Engineering and Operations. He is based in Irvine, California. With over 25 years of experience (and 2P3 years at combined CH2M/Jacobs), he has led or played a key role in numerous large-scale planning and operations analyses. He has conducted studies and developed plans for local areas, corridors, and entire regions including roadways, maritime facilities, and airports. Loren's technical expertise is in traffic engineering and operations, with a particular focus on conceptual engineering and traffic modeling, as well as emerging transportation technologies like connected and automated vehicles (CAVs), road user charging, and priced managed lanes. He has worked on projects in 28 states, as well as internationally in New Zealand, Saudi Arabia, Abu Dhabi, Iraq, Dubai, Mexico, and Canada.

Loren is often called on as a technical expert for Jacobs' traffic engineering and planning projects and as a project manager for his ability to guide multi-disciplinary studies, particularly in the planning and preliminary engineering stage. He is well-versed in environmental requirements for traffic analysis, with extensive delivery experience in both NEPA and CEQA. Loren has broad project experience with maintenance of traffic, Transportation Management Plans (TMPs), and signing/stripping, as well as cost-benefit analysis for transportation projects. Loren is also an expert in the application of Context Sensitive Solutions (CSS), with successful project applications on a wide range of feasibility studies and preliminary engineering. As the Traffic Engineering/Operations Global Technology Leader, Loren promotes coordination and connections between 400 traffic engineers in nine countries. He also plays an active role in Transportation Research Board (TRB) committees: Highway Capacity and Quality of Service (AHB40), Managed Lanes (AHB35), and the Joint Subcommittee on Simulation (AHB45(1)).

### Education | Qualifications

M.E., Civil Engineering, University of California, Berkeley, 1994  
M.S., Civil Engineering, University of California, Berkeley, 1993  
B.S., Systems Engineering, University of Virginia, 1989

### Registrations | Certifications

Professional Engineer: California, 2000 (No. 2060)

### RELEVANT PROJECT EXPERIENCE

I-10 Corridor Contract 1, San Bernardino County, CA, 2018 – present

**Client:** San Bernardino County Transportation Authority

**Title:** Transportation Management Plan (TMP) Lead

The TMP is supporting the maintenance of traffic (MOT) efforts on this design-build project to implement two Express Lanes in each direction of I-10 in Claremont, Montclair, Upland, and Ontario. A four-stage construction approach is being applied to minimize impacts from pavement rehabilitation, bridge replacement and widening which will require mainline, ramp, and local street lane closures, as well as mainline crossovers and traffic splits. Lead author on the baseline TMP, which was a condition of approval for NTP2, and was approved after one set of comments from SBCTA and Caltrans. The baseline TMP is the master plan document to set policy and guide traffic management activities in later phases via specific TMPs. TMP activities include analysis of impacts (supported by traffic analysis), development of mitigation strategies (including detours and alternate routes) and extensive stakeholder coordination support.

Arroyo Seco Safety and Operational Improvements Project Report and Environmental Document, Los Angeles, CA, June 2018 – present

**Client:** Caltrans District 7

**Title:** Project Manager and Transportation Task Lead

Jacobs is working with Caltrans to develop and analyze alternatives to enhance safety along a 4.8-mile segment of the Arroyo Seco Parkway (SR 110), north of downtown LA. The Arroyo Seco Parkway is a winding scenic roadway that was the first freeway built in the western United States. It was listed in the National Register of Historic Places in 2011 and designated a National Scenic Byway in 2002. As such, any physical improvements (including signs) will be subject to intense scrutiny from stakeholders. The study is considering a range of improvements including ITS strategies to manage lane control (hard shoulder running and dynamic lane control) as well as interchange improvements to address design deficiencies. Loren is directing a multi-disciplinary team conducting the engineering and environmental analysis, with a particular focus on design standards and safety, historic resources and visual impacts, and traffic and safety analysis.

#### Pastoria Solar Project, Kern County, CA, 2019 – present

**Client:** Pastoria Solar Energy Company

**Title:** Traffic Technical Lead

The Pastoria Solar Project is a proposed photovoltaic electrical generating facility with capacity to generate up to 115 megawatt hours (MW) of renewable electrical energy and store up to 40 MW energy in a Battery Storage System (BESS). The proposed project is situated on approximately 650 acres of privately-owned land. Led the traffic analysis to support the environmental evaluation, including level of service analysis on the freeways, interchanges, and local streets, and VMT analysis consistent with CEQA requirements. Cumulative impacts of the effects of nearby development on project construction impacts were considered.

#### West Santa Ana Branch, Los Angeles County, August 2017 – present

**Client:** Los Angeles Metro

**Title:** Transportation Task Lead

The West Santa Ana Branch transit corridor is a proposed light rail transit line that would extend approximately 20 miles south from downtown Los Angeles, using existing and historical rail corridors crossing through a highly urbanized area. Jacobs is leading the traffic analysis and other engineering and environmental evaluation as part of the environmental clearance for CEQA and NEPA, including VMT analysis using the new SB 743-driven guidelines for transportation analysis. Leading the transportation analysis, including traffic operations, parking, transit, and non-motorized. The traffic operations analysis focuses on at-grade train crossings and additional traffic from new stations, and then the environmental analysis of potential impacts and mitigation strategies. Extensive data collection and analysis of existing and future operations is being conducted.

#### Data Center, Data Center Campus, 2019

**Client:** Undisclosed

**Title:** Traffic Lead

Jacobs is working with a confidential client to construct and operate a data center campus in the San Francisco Bay Area. It will consist of three data center buildings totaling over 484,000 square feet of space. The facility design will require up to 99 MW of electrical power and will be supported by 42 emergency generators. Leading the traffic analysis to support the environmental document, including application of VMT-based CEQA evaluation, following new guidelines of the local jurisdiction.

#### Huntington Beach Energy Center Project, Huntington Beach, CA, 2012 – 2014

**Client:** AES Southland Development

**Title:** Task Lead

Traffic lead for the application for certification (AFC) for a new 939-megawatt (MW) combined-cycle power plant. Led the analysis to evaluate the construction and permanent potential effects of the new facility, which is located in

a beach community, directly adjacent to a popular beach. Assessed traffic operations impacts, transport of hazardous materials and public safety to support the owner's successful efforts to secure licensing of the new facility.

Demolition and Environmental Cleanup Activities at Santa Susana Field Laboratory EIS, Ventura County, California, 2013 – 2014

**Client:** NASA

**Title:** Traffic Lead

Technical lead on the transportation evaluation of potential environmental impacts from its Proposed Action to conduct demolition activity and remediation of groundwater and soil on the NASA-administered property at Santa Susana Field Laboratory (SSFL). Developed the approach and application of impact analysis for roadway operations and LOS; potential exposure of school children to truck traffic; and potential safety effects from the project-related truck trips, pavement conditions, and parking. The local (Woolsey Canyon Road, Roscoe Boulevard, and Topanga Canyon Road); and regional network (I-405, I-5, I-210, and SR 14) were evaluated. The primary impact evaluation focused on truck traffic along the routes accessing SSFL and from onsite demolition, construction, and environmental cleanup activity.

Dow Chemical Company Modernization Project Initial Study, Pittsburg, CA, 2013 – 2014

**Client:** Dow Chemical

**Title:** Traffic Lead

Traffic lead to prepare an Initial Study (IS) on a proposed project to expand and modify Dow's Pittsburg Operations Facility. The project is an upgrade to three existing plants and construction of a new plant. Transportation analysis focused on the traffic generated by the proposed Project, considering the anticipated construction schedule, activities, and workforce. Impact analysis included the freeway (SR 4) and interchanges, along with the local street system near the plants. Mitigation strategies, including a TMP, were developed.

Hidden Hills Solar Electric Generating System, Inyo County, CA, 2011 – 2013

**Client:** BrightSource Energy

**Title:** Traffic Analysis Lead

Traffic and transportation task lead for analysis of a solar energy project in the Mojave Desert, near the California/Nevada border. Prepared the traffic and transportation analysis section of the Application for Certification. The analysis focused on construction impacts to traffic operations, including construction workers, truck trips, and transport of hazardous materials. Assessed intersection and highway impacts of a complex worker schedule and developed a comprehensive mitigation strategy. Testified on behalf of the owner in front of the California Energy Commission.